October-November 2025

IGLiving

IGLiving.com

Holistic Health

Finding Balance with Chronic Illness

Mental Health Support for Caregivers

Digital Detox: Refreshing Physically and Mentally

Transitioning Your IG Coverage to Medicare

Diagnosing and Treating Anxiety Disorders

For patients with primary humoral immunodeficiency (PI)

IT'S WHAT'S INSIDE THAT COUNTS

ASCENIV™
IMMUNE GLOBULIN INTRAVENOUS (HUMAN) – slra 10% LIQUID

DESIGNED TO DELIVER™

Talk to your doctor about whether ASCENIV™ is right for you

asceniv.com

Important Safety Information for ASCENIV™

WARNING: RISK OF BLOOD CLOTS (THROMBOSIS), POOR KIDNEY FUNCTION, AND INABILITY TO FILTER WASTE FROM KIDNEYS. BLOOD CLOTS MAY OCCUR WITH INTRAVENOUS IMMUNE GLOBULIN PRODUCTS, INCLUDING ASCENIV.

Before taking ASCENIV, talk to your doctor if you:

- Are of advanced age
- Are unusually sedentary (long periods of sitting down or inactive)
- Are taking estrogen-containing medicines (birth control pills, hormone replacement therapy)
- Have a permanent intravenous (IV) catheter
- Have hyperviscosity of the blood (diseases such as multiple myeloma or other causes of elevated proteins in the blood)
- Have cardiovascular (heart) problems or previous history of stroke

Thrombosis may occur even if you do not have any risk factors.

Serious kidney problems and death can also happen in certain patients who receive such products.

If you are at high risk of thrombosis or kidney problems, your doctor should adjust the dose of ASCENIV and will monitor you for signs and symptoms of thrombosis and viscosity, as well as kidney function.

What is ASCENIV (immune globulin intravenous, human)?

ASCENIV (immune globulin intravenous, human) is a prescription medicine to help adults and adolescents (12 to 17 years old) with primary immunodeficiency fight and prevent infections.

ASCENIV is for intravenous administration only. ASCENIV is made from healthy human blood/plasma.

Who should not use ASCENIV?

ASCENIV should not be used if you had a severe allergic reaction to human immune globulin or if you have been told by a doctor that you are immunoglobulin A (IgA)-deficient and have developed antibodies to IgA and hypersensitivity after exposure to a previous plasma product.

What are possible warnings and precautions with taking ASCENIV?

Hypersensitivity. Severe allergic reactions may occur with immune globulin products, including ASCENIV. If you have a severe allergic reaction, stop the infusion immediately and get medical attention. ASCENIV contains IgA. If you have known antibodies to IgA, you may have a greater risk of developing potentially severe allergic reactions.

If you take ASCENIV or a similar immune globulin product, you could experience a serious and life-threatening blood clot (thromboembolism). This may include pain and/or swelling of an arm or leg with warmth over the affected area, discoloration of an arm or leg, unexplained shortness of breath, chest pain or discomfort that worsens on deep breathing, unexplained rapid pulse, numbness, or weakness on one side of the body. If you are at risk, your doctor may decide to adjust the dose of ASCENIV. Your doctor will monitor you for any signs or symptoms of blood clots or poor blood flow in your arteries.

Always tell your doctor immediately if your medical history is similar to what is described here, and especially if you experience any of these symptoms while taking ASCENIV.

Kidney problems or failure. Kidney problems, kidney failure, and death may occur with use of human immune globulin products, especially those containing sucrose (sugar). ASCENIV does not contain sucrose.

If you have kidney disease or diseases with kidney involvement, your doctor should perform a blood test to assess your hydration level and kidney function before beginning immune globulin treatment and at appropriate intervals thereafter. If your doctor determines that kidney function is worsening, they may discontinue treatment. If your doctor determines you to be at risk, they may start your dose of ASCENIV at a safe level.

People taking human immune globulin products, including ASCENIV, may experience hyperproteinemia (high levels of protein in the blood), hyponatremia (low levels of sodium in the blood), and hyperviscosity (poor blood flow). Your doctor may perform certain blood tests and monitor you to minimize any of the above risks.

Aseptic meningitis syndrome (AMS). Aseptic meningitis is a non-infectious inflammation of the membranes that cover the brain. It causes a severe headache, which may occur with human immune globulin treatment, including ASCENIV. AMS usually happens within a few hours to 2 days after treatment. AMS is more commonly associated with higher doses of treatment and/or after rapid infusion. Your doctor may perform a neurological exam, including spinal tap (sampling fluid which surrounds the spinal cord) to evaluate your condition and to rule out other causes of meningitis.

Hemolysis. Hemolysis refers to the destruction of red blood cells. Immune globulin products, including ASCENIV, may contain certain antibodies that can result in the rupturing of red blood cells. Your doctor should monitor you for signs and symptoms of hemolysis, which may include additional confirmation tests.

Taking intravenous human immune globulin products may cause a build up of fluid in the lungs (pulmonary edema) that is unrelated to heart problems. Your doctor should monitor you for lung-related side effects and may conduct appropriate tests that can detect the presence of certain white blood cells (anti-neutrophils) in the drug or your blood. If needed, your doctor may decide to use oxygen or other respiratory methods to help your breathing.

Transmissible infectious agents. Because ASCENIV is made from human blood, it may carry a risk of transmitting infectious agents such as viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent, and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent. Your doctor will report to the manufacturer any cases of suspected infections spread by the product.

Interference with lab tests. Because ASCENIV contains a variety of antibodies that are infused into your body, blood tests to determine antibody levels may provide misleading interpretations. Be sure to always tell your doctor, nurse, or lab technician of any medicines you are taking and that you are using ASCENIV.

Interactions with medicines. ASCENIV can make vaccines (like measles, mumps, rubella, and chicken pox vaccines) less effective in your body. Before you get any vaccines, tell your healthcare provider that you take ASCENIV.

What are other possible side effects of ASCENIV?

In clinical studies of ASCENIV, some patients experienced the following:

- Headache
- Sinus inflammation (sinusitis)
- Diarrhea
- Intestinal lining inflammation caused by virus (gastroenteritis)
- Common cold (nasopharyngitis)
- Upper respiratory tract infection
- Bronchitis
- Nausea

These are not all the possible side effects of ASCENIV. Talk to your healthcare provider about any side effect that bothers you or that does not go away.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

For additional safety information about ASCENIV, please see full Prescribing Information at www.asceniv.com

ADMA BIOLOGICS

11150-22-IGG-03192025_R00
Visit admabiologics.com

Features

Up Front

Departments

Columns

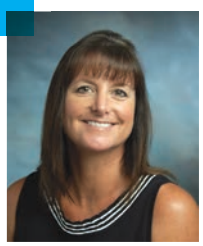
Sources

About IG Living
IG Living magazine brings together patients, advocates and caregivers in the immune globulin (IG) community.

IG Living, (ISSN 1949-4548), published bimonthly, is a community service provided by FFF Enterprises, 44000 Winchester Road, Temecula, CA 92590, (800) 843-7477 x1362, fax (951) 699-9655.

Subscriptions to IG Living are free, and readers may subscribe at IGLiving.com or by calling (800) 843-7477 x1461.

Techniques to Improve the Mind and Body



WHEN SEEKING to manage chronic illness, patients often get caught in a cycle of focusing most heavily on medication and doctor visits. But as we have stressed throughout the years in the pages of this magazine, paying attention to self-care lifestyle techniques that address mind-body health are equally as important as your medication management/healthcare team regimen. That's the focus of many of the articles in this issue, as well as the various columns written by fellow chronic illness warriors who offer their own proactive tips.

Holistic health has roots that extend thousands of years, but in modern times, it has become a complementary approach to conventional medicine. As Janelle Salo, RN, a holistic health and wellness writer, explains in her article "A Holistic Approach to Living with Chronic Illness" (p.22), "It's important to address the mind, body and spirit for overall well-being," which means addressing how you eat, move, think and even connect with others. Janelle explains the impacts the mind-body connection, nutrition and diet, physical activity, herbal remedies, spirituality and finding a supportive environment have on your overall health. And, she provides a plan for how you can take small, manageable steps that treat your whole self, not just your symptoms.

And caregivers, it's just as important for you to take care of your health as it is for patients. Most caregivers must juggle multiple responsibilities in addition to caring for your loved one. And, this can result in "burnout," which will affect not only you, but your loved one as well. We address this issue in our article "Mental Health Support for Caregivers" (p.30), including how to recognize the signs of burnout and compassion fatigue. We also explain the need for boundaries and provide practical strategies for how to put them into practice. Importantly, it's essential to remember that caregiver guilt and caregiver grief often go hand in hand with the responsibility of caregiving, both of which require a balancing act to ensure you both get the compassion you need. What's more, it's crucial to remember that at some point, you may need to ask for help, and that's OK; it's a sign of strength, not weakness.

Perhaps one thing that can get in the way of a healthy state of mind and can actually harm your health: your smartphone! Yes, it can be especially beneficial for managing chronic illness, but it also comes with many drawbacks. In our article "How and Why to Do a Digital Detox" (p.34), we explain what a digital detox is, when it might be right for you and provide seven strategies to implement a simple and effective one.

As always, we hope you enjoy these articles, as well as the many more educational and insightful topics presented in this issue of *IG Living*.

Ronale Tucker Rhodes

Ronale Tucker Rhodes, MS

IGLiving

Our mission is to support the IG community through education, communication and advocacy

A community service from FFF Enterprises, Inc.

Delivering Lifesaving Plasma Products When You Need Them

At **FFF Enterprises**, we understand the critical nature of your work. Every transaction you make provides essential plasma products for patients in need. That's why we are dedicated to being your reliable supplier of safe and effective plasma products, including immune globulin (IG), hyperimmune globulin, coagulation, and albumin therapies.

Count on Us For:

- **Fast and Reliable Delivery:** We ensure you receive the vital plasma products you need, when you need them.
- **Unmatched Expertise:** Our team has extensive knowledge to assist you with any questions you may have.
- **Free IG Resources:** We offer a variety of helpful tools to simplify your practice, including:
  - *IG Reimbursement Calculator*
  - *IG Reference Charts*
  - *IG Living, a magazine dedicated to the IG community*

Partner with FFF Enterprises today and ensure your patients receive the lifesaving care they deserve.

Scan the QR code and search under Biologics to learn more.

Scan the QR code and go to Resources to learn more.

(800) 843-7477 | FFFenterprises.com

FFF enterprises
Helping Healthcare Care®

ERs Aren't Ready for Patients with Rare Conditions

By Abbie Cornett, MBA

FOR MANY individuals living with chronic illness, one of the most frustrating and frightening parts of dealing with their illness is realizing emergency rooms (ERs) often aren't prepared to treat them properly.

Medical students are taught: "When you hear hoofbeats, think horses, not zebras." The phrase encourages providers to look for the most common causes first. While this approach works for most people, it can be dangerous for patients with rare diseases such as primary immune deficiencies (PI). These patients are the zebras in a room full of horses — and because of that, they often enter ERs at a disadvantage. Misunderstood. Delayed. Sometimes ignored entirely.

These patients often spend years learning how to manage their health, keep up with medications, organize infusions or treatments, track symptoms and stay in close contact with their specialists. However, most ER doctors may have encountered these diseases only once or twice during medical school. For patients, their condition shapes everyday life. For many ER providers, it's something they barely remember from a textbook.

The risks of being misunderstood. For patients with PI or immune dysregulation disorders, ER visits can carry a significant risk. Symptoms that may seem mild to the average person, such as low-grade fever or mild gastric distress, can signal the early stages of something far more serious. Delays in antibiotics or incorrect treatment can quickly escalate into life-threatening situations.

Adding to the challenge, symptoms don't always present in typical ways. Some patients with PI may not develop a fever even with a serious infection, making it harder for providers to gauge the urgency of the situation.[1] Others may be given live vaccines or contraindicated medications that can pose a serious health risk when used in immunocompromised individuals.[2]

Preparing for the ER. While patients can't pick their ER doctors, they can take steps to improve their chances of receiving safe and effective care. The following strategies can help patients improve their experience when they need to visit the ER:

1) Carry an emergency information sheet. A short summary should outline the patient's diagnosis, medications, allergies and emergency instructions that include the diagnosis (e.g., primary immune deficiency, autoimmune disorder); current treatments (e.g., immune globulin therapy, immunosuppressants, biologics); contact information for specialists; and special instructions (e.g., avoid live vaccines, adverse reactions to treatments).

The Immune Deficiency Foundation provides a free "I Am Immunocompromised" card that patients can keep in their wallet. It has space to write important medical details, making it easier for emergency staff to understand their condition. The card comes in English and bilingual Spanish/English and can be downloaded to print at home or ordered by mail through the IDF website.[3]

2) Use a medical ID. A medical alert bracelet, wallet card or digital medical ID app can help ensure medical information is available even if the patient is unable to speak for himself or herself.

3) Keep a current medication list. An updated list of prescriptions and dosages that can be stored on a smartphone or in a wallet can prevent delays or errors in prescribing.

4) Know and assert your rights. Patients have the right to ask for a second opinion, request a specialist consultation or ask for documentation of the care they receive. Additionally, patients can ask the doctor to contact their immunologist.

5) Bring an advocate. When possible, having a trusted person accompany the patient can ensure important details aren't overlooked and the patient's voice is heard during stressful or overwhelming moments.

Take it one visit at a time. While it can be exhausting for patients to continually explain their condition, especially when they are ill, it is important to remember that each prepared visit is an opportunity to raise awareness and improve care in the future. ER professionals want to help. When given the tools and information they need, they can. With preparation and advocacy, patients can take an active role in their health one visit at a time. IG

References

1. Immune Deficiency Foundation. Body Temperature and Fever in Patients with Primary Immunodeficiency, Jan. 14, 2019. Accessed at primaryimmune.org/resources/news-articles/body-temperature-and-fever-patients-primary-immunodeficiency.
2. Mohme, S, Schmalzing, M, Müller, CSL, et al. Immunizations in Immunocompromised Patients: A Guide for Dermatologists. *Journal der Deutschen Dermatologischen*, 2020 Jul;18(7):699-723. Accessed at pubmed.ncbi.nlm.nih.gov/32713146.
3. Immune Deficiency Foundation. I Am Immunocompromised Emergency Card, July 18, 2022. Accessed at primaryimmune.org/resources/print-material/i-am-immunocompromised-emergency-card.

ABBIE CORNETT, MBA, is the patient advocate for *IG Living* magazine. She can be reached at patient advocate@igliving.com or (800) 843-7477 x1366.

What's The One Thing You Wish You Had Known When You Started Immune Globulin Therapy?

How horrific the experience can be — from lawsuits to obtain coverage to anaphylaxis with multiple products; to finding out that immunologists only want to prescribe, not treat; to being shipped expired product and being told to use it; finding [specialty] pharmacies that disregard HIPAA and calculate dose improperly and don't send correct supplies; and an unending fight with insurance to correct if it's filed under Part B or D of Medicare, so they keep swapping it to ensure the deductible is never met. Also, finding financial aid when on Medicare is a nightmare. Then, the IgG levels never raised to safe levels. It just didn't work at all. No benefit. Just kidney disease.

That one should get d5 fluids during IVIG to stop headaches.

I wish I had known how to treat aseptic meningitis caused by IVIG.

How much it was going to help me, and it was going to be OK.

How dramatically it would change my life!

That not everyone needs the same dose and frequency, and you are perfectly within your rights to request a change. Fortunately, my neurologist says, "My approach is to let the patient drive the boat," and [he] listens to me.

What's Your Favorite Way to Enjoy Nice Weather While Managing Your Condition?

A walk, porch sitting.

Walking around the lake near my home and seeing nature so close to home.

Being outdoors admiring the sunshine, the smell of flowers, etc. [I] also love to ride my scooter over to one of the nearby stores.

I love sitting on my deck reading a good book.

What's Your Go-To Comfort Item During Infusions?

Blanket, drink, book and a puzzle.

Nice 100 percent cotton knit pants. Nothing worse than a long infusion with tight pants.

A cozy zebra blanket given to me by a zister (zebra sister), along with many mugs of fluids.

Snuggling with my puppy under a cozy blanket, and watching a good movie.

Reclining on my couch, watching a movie and having a favorite snack.

Join the conversation! Connect with other immune globulin patients through IG Living's Facebook page at www.facebook.com/IGLivingMagazine. Each day, we post interesting articles and facts, as well as thought-provoking questions you can weigh in on. These are some snapshots of what's being discussed.

Can Chia Seeds Increase IgG Levels?

I take one to two tablespoons of chia seeds daily. Can this increase my immunoglobulin G (IgG) levels? I have been treated with intravenous immune globulin (IVIG) every four to six weeks for years now, and my IgG levels usually stay in the 800 range. Now, they are double that range.

Abbie: While chia seeds are a good source of fiber, omega-3 fatty acids and various antioxidants, there is currently no clinical evidence to suggest they directly influence or increase IgG levels. Therefore, it is unlikely that chia seed intake alone would cause a significant change in IgG levels, especially to the degree you've described.

Given that your IgG levels have historically remained around 800 mg/dL while receiving IVIG every four to six weeks and are now measuring at nearly double that amount, it would be prudent to consult with your prescribing physician. He or she can help determine whether any recent changes in your treatment plan, such as a possible adjustment to your IVIG dose or infusion schedule, may be contributing to the increased IgG levels.

In addition, it's important to inform your physician about all supplements you're taking, including chia seeds, even if they seem harmless. This ensures he or she has a complete picture of your health regimen and can better assess any potential interactions or contributing factors. Please always discuss any sudden or unexpected changes in your lab values with your healthcare team to ensure you are monitored and receive follow-up care.

Can CVID Patients Develop Resistance to IVIG Products Over Time?

I am treated with 40 grams of intravenous immune globulin (IVIG) per hour. My immunoglobulin G (IgG) labs have been within normal range. However, approximately two years ago, I had above-normal IgG labs and was reduced from 50 grams to 40 grams every four weeks. The only other time my IG dose was reduced was during the pandemic when the pharmacy reduced it to 20 grams to preserve it for children who may have needed it to treat a COVID-19 infection. During that time (approximately four months), I experienced five infections. I had been doing OK until this last September when I got COVID-19, and I had a COVID-19 rebound, then a urinary tract infection and then a respiratory infection that took a month and two different antibiotics to cure. Then, I got thrush and a sinus infection. Recently, I experienced osteoarthritis (OA) all over my body. I have known for years I have OA, but nothing like this exacerbation, which included my left and right condyles. I am 80 years old, and maybe this is due to old age, but I can't help thinking my body has gotten accustomed to the IVIG and it may have become less effective over time for my common variable immune deficiency (CVID). Is this possible?

Abbie: According to Terry O. Harville, MD, PhD, medical director of the Special Immunology Laboratory at the University of Arkansas for Medical Sciences, while it's understandable to wonder whether IVIG may become less effective over time, there is currently no evidence that patients with CVID develop resistance or tolerance to IG products. However, your clinical response, including the recurrence of infections and worsening symptoms, may suggest your current dose is no longer adequate for your needs.

The key point to consider is that dosing should not rely solely on serum IgG levels (trough values). These levels can be helpful when determining whether a dose is too low, but once a patient is experiencing breakthrough infections or worsening symptoms — even with a "normal" IgG level — it's often appropriate to reevaluate and potentially increase the dose.

A recent article in the *Annals of Allergy, Asthma and Immunology* supports this perspective. It emphasizes that dose and frequency should be adjusted based on clinical outcomes rather than lab values alone. In your case, the increase in infections and complications, particularly following a COVID-19 infection, may indicate a need for a higher dose or more frequent infusions to help manage these setbacks.

» Have a question? Email us at editor@IGLiving.com.
Your information will remain confidential unless permission is given.

ABBIE CORNETT, MBA, is the patient advocate for *IG Living* magazine. She can be reached at patient advocate@igliving.com or (800) 843-7477 x1366.

Embracing the Power of Both/And Thinking

By Mairead McConnell, PhD

LIVING WITH compromised immunity or chronic illness comes with unique challenges and limitations. Your daily life now may look different than it did before your diagnosis or symptoms began. Accepting new limitations is a healthy and necessary part of adjusting to life with a chronic illness. However, when those challenges begin to define how you see yourself, it can lead to all-or-nothing thinking. All-or-nothing thinking, sometimes called "black and white thinking," is a common thinking trap characterized by over-simplification of a situation, which can lead to frustration and even hopelessness. If you notice yourself getting stuck in those traps, consider using the strategies below to increase your flexibility and compassion through "both/and" thinking.

Notice Your Language

The first step to changing any habit or thinking pattern is to notice when you are engaging in it. A simple way to spot all-or-nothing thinking is to look out for words that suggest extreme absolutes (always, never, impossible, can't) or extremely negative labels (useless, pointless, failure). Situations are rarely all good or all bad, so when you view them in extremes, it is likely your emotions are coloring your ability to see things from a balanced perspective.

No 'Buts' Necessary

Another word that can exacerbate negative thinking and even lead to more conflict in relationships is the word "but." "I was having a great day, but then I spilled my coffee." "I was planning to take a walk, but I didn't have the energy." "I'm sorry I didn't call you back, but I was really busy."

In each of these cases, the word "but" negates the first half of the sentence: The great day, the good intention, even the apology is erased with one little word. Consider reducing the use of "but" in your vocabulary and notice how your thinking and communication change.

Embrace Both/And

The alternative to all-or-nothing thinking, extreme negativity or "but" is embracing the reality that two things can be true. Two somewhat contradictory truths, or even feelings, can — and often do — exist at the same time. You can easily practice this perspective simply by replacing the word "but" with the word "and." Like this: "I was having a great day, and I just spilled my coffee." Each statement is true; one doesn't negate the other. This leaves room for more possibilities; in this case, you can continue having a great day.

Let's try a few more:

"I was planning to take a walk, and I don't have the energy anymore. I've decided to rest today and walk tomorrow."

This reframe infuses flexibility (plans can change!), compassion (being kind to yourself and your needs) and accountability (try again tomorrow).

"I'm sorry I didn't call you back. I was busy, and I can see how that may have hurt your feelings."

Removing "but" from your apologies limits defensiveness and increases connection and validation.

Both/and thinking allows you to embrace the multiple valid realities around you. More than one thing can be true — and so often is! When you allow space for both challenge and possibility, you open the door to more compassion, more creativity and more freedom. Life may look different now, and it can still be rich, meaningful and yours.

MAIREAD MCCONNELL, PhD, is a clinical psychologist and assistant professor at Banner University Medical Center in Tucson, Ariz. She specializes in health psychology and is passionate about helping patients live well while navigating the challenges of chronic illness.

INDICATIONS AND USAGE

PANZYGA (Immune Globulin Intravenous [Human] – ifas) is indicated for the treatment of primary humoral immunodeficiency (PI) in patients 2 years of age and older, chronic immune thrombocytopenia (cITP) in adults and chronic inflammatory demyelinating polyneuropathy (CIDP) in adults.

PANZYGA is a liquid medicine for infusion that contains immunoglobulin G (IgG), which are proteins that help fight infection. It is made from human plasma that is donated by healthy people and contains antibodies. For patients with PI, PANZYGA helps replace the missing antibodies in the body. For patients with cITP, PANZYGA helps the body produce more platelets (the blood cells that help blood clot) to control or prevent bleeding. For patients with CIDP, PANZYGA may help improve mobility and hand strength.

PANZYGA is given into a vein (intravenously) in a hospital, infusion center, doctor's office, or at home by a trained healthcare provider (HCP).

IMPORTANT SAFETY INFORMATION

WARNING: THROMBOSIS, RENAL DYSFUNCTION, and ACUTE RENAL FAILURE

See full prescribing information for complete BOXED WARNING

- **Thrombosis may occur with immune globulin intravenous (IGIV) products, including PANZYGA. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling vascular catheters, hyperviscosity, and cardiovascular risk factors.**
- **Renal dysfunction, acute renal failure, osmotic nephropathy, and death may occur with the administration of IGIV products in predisposed patients. Renal dysfunction and acute renal failure occur more commonly in patients receiving IGIV products containing sucrose. PANZYGA does not contain sucrose.**
- **For patients at risk of thrombosis, renal dysfunction, or acute renal failure, administer PANZYGA at the minimum infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.**

Do not use PANZYGA if you:

- Have had a severe allergic reaction to immune globulin or other blood products
- Have a condition called selective (or severe) immunoglobulin A (IgA) deficiency, with antibodies against IgA and a history of hypersensitivity

What should I know before taking PANZYGA?

- PANZYGA can make vaccines (like measles/mumps/rubella or chickenpox vaccines) work less effectively for you. Before you get any vaccines, tell your healthcare provider that you take PANZYGA
- Decreased kidney function and kidney function failure can occur
- Severe headache, drowsiness, fever, painful eye movements, or nausea and vomiting can occur
- Elevated blood pressure can occur particularly in patients who have a history of hypertension (high blood pressure)
- If you are elderly, with heart or kidney problems, discuss with your healthcare provider prior to initiating treatment with PANZYGA
- PANZYGA is made from human blood and therefore may have a risk of transmitting infectious agents, including viruses and, theoretically, the variant Creutzfeldt-Jakob disease (CJD) and CJD agent. The production and manufacturing process reduces this risk, but the risk cannot be eliminated

PANZYGA can cause serious side effects. If any of the following problems occur after starting PANZYGA, stop the infusion immediately and contact your HCP or call emergency services:

- Hives, swelling in the mouth or throat, itching, trouble breathing, wheezing, fainting, or dizziness. These could be signs of a serious allergic reaction
- Bad headache with nausea, vomiting, stiff neck, fever, drowsiness, painful eye movements, and sensitivity to light. These could be signs of irritation and swelling of the lining around your brain

Please see Important Safety Information on this and adjacent page of this advertisement and Brief Summary of Prescribing Information.

FDA approved for chronic inflammatory demyelinating polyneuropathy (CIDP) in adults to improve neuromuscular disability and impairment

- **80% treated with 1g/kg and 92% treated with 2g/kg of PANZYGA saw improvement in arm and/or leg impairment***
- **With the PANZYGA Co-Pay Program, eligible patients may pay as little as $0 for PANZYGA†**
  - Patients must have commercial insurance to be eligible
  - Patients are not eligible if they are enrolled in a state or federally funded insurance program

*Depending on the ongoing therapy dose.
†Eligible, commercially insured patients may pay as little as $0 for PANZYGA and may receive a maximum benefit of $12,500 per year or the cost of patient's co-pay in a 12-month period (whichever is less) for claims received by the program. Terms and conditions/eligibility requirements apply. See full Terms and Conditions at PanzygaCoPay.com.

panzyga®

Immune Globulin Intravenous (Human) - ifas 10% Liquid Preparation

Talk to your doctor about PANZYGA and learn more at PanzygaInfo.com

IMPORTANT SAFETY INFORMATION (continued)

- Reduced urination, sudden weight gain, or swelling in your legs. These could be signs of a kidney problem (decreased kidney function or kidney failure)
- Pain, swelling, warmth, redness, or a lump in your legs or arms. These could be signs of a blood clot, which could happen in the heart, brain, lungs, or elsewhere in the body
- Brown or red urine, swelling, fatigue, fast heart rate, difficulty breathing, or yellow skin or eyes. These could be signs of a liver or blood problem
- Chest pain or trouble breathing, or blue lips or extremities. These could be signs of a serious heart or lung problem
- Fever over 100°F. This could be a sign of an infection
- Headache, fatigue or confusion, vision problem, chest pain, difficulty breathing, irregular heartbeat, or pounding in your chest, neck, or ears. These could be signs of high blood pressure

Ask your HCP whether you should have rescue medications available, such as antihistamines or epinephrine.

What are the possible or reasonably likely side effects for PANZYGA?

The most common side effects that may occur with PANZYGA are:

- Headache
- Nausea
- Fever
- Increased blood pressure
- Dermatitis
- Fatigue
- Abdominal pain
- Dizziness
- Anemia

These are not all the possible side effects. Talk to your HCP about any side effect that bothers you or that does not go away.

Tell your HCP if you are pregnant, or plan to become pregnant, or if you are nursing.

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the U.S. Food & Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

PANZYGA is FDA approved for 3 indications:

- CIDP in adults
- PI in patients 2 years of age or older
- cITP in adults

Pfizer | octapharma®

Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H. Distributed by Pfizer Labs, Division of Pfizer inc.

PP-PAN-USA-0927

April 2024

panzyga®
Immune Globulin
Intravenous (Human) - ifas
10% Liquid Preparation

CONSUMER BRIEF SUMMARY

(PANZYGA: *pan-zee-guh*)

This brief summary highlights the most important information about PANZYGA. Please read it carefully before using PANZYGA and each time you have an infusion, as there may be new information. This brief summary does not take the place of talking with your healthcare provider about your medical condition or your treatment. If you have any questions after reading this, ask your healthcare provider. For more information, go to www.PanzygaInfo.com.

What is PANZYGA?

PANZYGA is a liquid medicine for infusion that contains immunoglobulin G (IgG), which are proteins that help fight infection. PANZYGA is used to treat primary humoral immunodeficiency (PI) in patients 2 years of age and older, chronic immune thrombocytopenia (cITP) in adults, and chronic inflammatory demyelinating polyneuropathy (CIDP) in adults.

PANZYGA is made from human plasma that is donated by healthy people and contains antibodies. For patients with PI, PANZYGA helps replace the missing antibodies in the body. For patients with cITP, PANZYGA helps the body produce more platelets (the blood cells that help blood clot) to control or prevent bleeding. For patients with CIDP, PANZYGA may help improve mobility and hand strength.

PANZYGA is given into a vein (intravenously) in a hospital, infusion center, doctor's office, or at home by a trained healthcare provider (HCP).

WARNING: THROMBOSIS, RENAL DYSFUNCTION, and ACUTE RENAL FAILURE

See full prescribing information for complete BOXED WARNING

- **Thrombosis may occur with immune globulin intravenous (IGIV) products, including PANZYGA. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling vascular catheters, hyperviscosity, and cardiovascular risk factors.**
- **Renal dysfunction, acute renal failure, osmotic nephropathy, and death may occur with the administration of IGIV products in predisposed patients. Renal dysfunction and acute renal failure occur more commonly in patients receiving IGIV products containing sucrose. PANZYGA does not contain sucrose.**
- **For patients at risk of thrombosis, renal dysfunction, or acute renal failure, administer PANZYGA at the minimum infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.**

Who should NOT use PANZYGA?

Tell your healthcare provider if you:

- Have had a severe allergic reaction to immune globulin or other blood products
- Have a condition called selective (or severe) immunoglobulin A (IgA) deficiency, with antibodies against IgA and a history of hypersensitivity

PANZYGA can cause serious side effects. If any of the following problems occur after starting PANZYGA, stop the infusion immediately and contact your HCP or call emergency services:

- Hives, swelling in the mouth or throat, itching, trouble breathing, wheezing, fainting, or dizziness. These could be signs of a serious allergic reaction
- Bad headache with nausea, vomiting, stiff neck, fever, drowsiness, painful eye movements, and sensitivity to light. These could be signs of irritation and swelling of the lining around your brain
- Reduced urination, sudden weight gain, or swelling in your legs. These could be signs of a kidney problem (decreased kidney function or kidney failure)
- Pain, swelling, warmth, redness, or a lump in your legs or arms. These could be signs of a blood clot, which could happen in the heart, brain, lungs, or elsewhere in the body
- Brown or red urine, swelling, fatigue, fast heart rate, difficulty breathing, or yellow skin or eyes. These could be signs of a liver or blood problem
- Chest pain or trouble breathing, or blue lips or extremities. These could be signs of a serious heart or lung problem
- Fever over 100°F. This could be a sign of an infection
- Headache, fatigue or confusion, vision problem, chest pain, difficulty breathing, irregular heartbeat, or pounding in your chest, neck, or ears. These could be signs of high blood pressure

Ask your HCP whether you should have rescue medications available, such as antihistamines or epinephrine.

What should I know before taking PANZYGA?

- PANZYGA can make vaccines (like measles/mumps/rubella or chickenpox vaccines) work less effectively for you. Before you get any vaccines, tell your healthcare provider that you take PANZYGA
- Decreased kidney function and kidney function failure can occur
- Severe headache, drowsiness, fever, painful eye movements, or nausea and vomiting can occur
- Elevated blood pressure can occur particularly in patients who have a history of hypertension (high blood pressure)
- If you are elderly, with heart or kidney problems, discuss with your healthcare provider prior to initiating treatment with PANZYGA
- PANZYGA is made from human blood and therefore may have a risk of transmitting infectious agents, including viruses and, theoretically, the variant Creutzfeldt-Jakob disease (CJD) and CJD agent. The production and manufacturing process reduces this risk, but the risk cannot be eliminated

What are the possible or reasonably likely side effects for PANZYGA?

The most common side effects that may occur with PANZYGA are:

- Headache
- Nausea
- Fever
- Increased blood pressure
- Dermatitis
- Fatigue
- Abdominal pain
- Dizziness
- Anemia

These are not all the possible side effects. Talk to your HCP about any side effect that bothers you or that does not go away. Tell your HCP if you are pregnant, or plan to become pregnant, or if you are nursing. If you encounter any problems or experience side effects during or after the infusion, contact your healthcare provider. When doing so, keep your therapy tracker with you to be able to give all necessary information.

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the US Food and Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

This brief summary is based on the PANZYGA Prescribing Information (February 2021).

PANZYGA® is a registered trademark of Octapharma AG.

Pfizer | octapharma® | Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H.
Distributed by Pfizer Labs, Division of Pfizer Inc.

SARS-CoV-2 and COVID-19: Brain Fog and Fatigue — Clinical Features of Postinfectious Immunoreactive Diseases That Occur Beyond Long COVID

By Terry O. Harville, MD, PhD

BRAIN FOG has been one of the most troubling clinical features of long COVID that, along with generalized fatigue, prevents patients from living normal daily lives. Indeed, the two can prevent people from being able to work, which further confounds their situation. We have been discussing "specifics" associated with long COVID, and in the last issue, we discussed specific treatments that have demonstrated dramatic benefits for brain fog and fatigue. In this discussion, we will digress somewhat and provide more information regarding brain fog (and fatigue) as general features of postinfectious immunoreactive diseases (a term I began using early in the 1980s to describe the adverse symptoms generated by the immune system in response to some activation event, such as a viral infection).

Delirium (a typically transient altered state of mind or consciousness) has long been known to occur in patients during fevers. We now know that pro-inflammatory cytokines, such as IL-1, IL-6 and TNF-α, released during the immune response for fighting the infection, promote fever occurrence and can directly contribute to brain dysfunction exhibited as delirium (which, in some respects, represents brain fog). Since these cytokines typically decline as the infection is brought under control and the immune response lessens, the effects on the brain also improve.

In some common viral infections, for example, influenza, short bouts of brain fog and fatigue are common. Indeed, essentially any viral infection can result in a postdromal (the phase following a migraine attack, often described as a migraine hangover) situation with short durations of brain fog and fatigue, and people accept this as normal during recovery from the infection. Now that brain fog and fatigue are associated with long COVID, retrospective analyses of data gathered over many years demonstrate that likely as many patients suffer from "long flu" as long COVID. Yet, these were not previously given significant consideration, since in some respects these were expected to occur. Thus, postinfectious brain fog and fatigue have been present, but were not considered major problems; indeed, patients were likely told they needed more time to recover fully or that they were depressed and treated for such.

As with COVID infection, in some patients, the immune response does not abate. There are differences, though, because with long COVID, infective virus is likely no longer present, whereas in some conditions, infection continues to be present. However, some of these are controversial in the medical community. For example, chronic Epstein-Barr virus infection and chronic Lyme disease, in which brain fog and fatigue are major clinical symptoms, persist and, in many cases, have been difficult to treat. Now, with brain fog and fatigue recognized as serious consequences of long COVID, new emphasis is being placed on treating these conditions of persistent infection, as well as the non-COVID-associated postinfectious conditions (for example, long flu).

Another controversial condition is myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS). Many physicians have thought that the brain fog and fatigue associated with ME/CFS were merely due to depression, primarily occurring in women. Once again, since long COVID has become a major problem, reassessment of ME/CFS has produced findings indicating that adverse immune activation can be present. Interestingly, there have now been numerous publications detailing the similarities between long COVID and ME/CFS. Thus, ME/CFS is likely a postinfectious immunoreactive disease process triggered by any of a number of viruses (or perhaps even certain bacteria), and what we now call long COVID may actually be a form of ME/CFS triggered by SARS-CoV-2. Although, as we have previously discussed, there are specific autoimmune processes triggered by SARS-CoV-2 in long COVID, which may be unique to this condition.

In the next issue, we will discuss more about SARS-CoV-2 and COVID-19.

TERRY O. HARVILLE, MD, PhD, is medical director of the Special Immunology Laboratory at the University of Arkansas for Medical Sciences and a consultant for immunodeficiencies, autoimmunities and transplantation.

Recognizing and Treating Opioid Toxicity

By Michelle Greer, RN, IgCN

OPIOIDS ARE a class of drug made from or made to be like natural substances found in the poppy plant. They are primarily prescribed and used for pain relief. Yet, use of them even for a short period (three to five days) for a medical purpose can result in addiction. Over time, persons taking opioids can develop tolerance, physical dependence and opioid use disorder (OUD), with the risk of overdose and death.[1] As many as one in four people receiving prescription opioids long term in a primary care setting struggles with opioid addiction.[2] And, death involving the use of opioids had been on the rise until recent years.

How Opioids Work

Examples of opioids include morphine, heroin, codeine, oxycodone, hydrocodone and fentanyl. They can be obtained legally with a physician's prescription, or they can be obtained illegally. Opioids differ in potency. For example, fentanyl is 50 to 100 times more potent than morphine, which can be extremely dangerous if not considered and used appropriately. Obtaining opioids through a means other than a prescription and a pharmacy carries additional risks and concerns about purity.

According to Johns Hopkins Medicine, all opioids work similarly: They activate an area of nerve cells in the brain and body called opioid receptors that block pain signals between the brain and the body.[1] The brain's reward system is a network of regions and pathways that drives how we feel pleasure, form habits and motivate behavior. It works by releasing chemicals, such as dopamine, in response to rewarding activities, whether it's eating, socializing or achieving a goal. This evolved mechanism reinforces behaviors that are beneficial or enjoyable by making us feel good when we perform them.[3] Opioid receptors are found in these regions of the brain, so part of the effect of opioid use is this feeling of pleasure, leading to a desire to continue their use.

The problem is that, over time, increased amounts of opioids are needed to create this feeling, which results in tolerance. Additionally, when opioids are not taken, unpleasant symptoms can occur, known as withdrawal. Repeated exposure to escalating dosages of opioids alters the brain so that it functions more or less normally when the drugs are present and abnormally when they are not. Two clinically important results of this alteration are opioid tolerance (the need to take higher and higher dosages of drugs to achieve the same opioid effect) and drug dependence (susceptibility to withdrawal symptoms). Withdrawal symptoms occur only in patients who have developed tolerance.[4]

Recognizing OUD

OUD is defined as the chronic use of opioids that causes clinically significant distress or impairment. Symptoms of this disease include an overpowering desire to use opioids, increased opioid tolerance and withdrawal syndrome when opioids are discontinued. Thus, OUD can range from dependence on opioids to addiction.[5]

In the United States, opioids have killed more people than any other drug in history. Recreational use of opioids was at its highest in 2010 and has gradually decreased as the opioid epidemic has gained attention in the U.S. Up to 50 percent of patients on chronic opioid therapy meet the criteria for OUD.[6]

Symptoms of Opioid Toxicity

Opioid toxicity is also known as an opioid overdose or opioid poisoning. This occurs when someone takes more than the body can safely process — either intentionally or unintentionally. And, since opioids work in the areas of the brain that control respiration, breathing can slow and/or stop. Opioid toxicity is a life-threatening situation, so lifesaving measures must begin immediately.

Symptoms of opioid toxicity include:

- Unconsciousness or inability to wake up
- Slow or shallow breathing or difficulty breathing
- Gurgling sounds
- Discolored, purplish skin, nails or lips
- Constricted, pinpoint pupils that don't react to light

Treating Opioid Toxicity

According to the Centers for Disease Control and Prevention, new data show overdose deaths involving opioids decreased from an estimated 83,140 in 2023 to 54,743 in 2024. One of the key reasons is the medicine naloxone, which is now available without a prescription; it is dispensed via state policies or federal programs,

as well as well-designed treatment programs that assist in addiction recovery.

Naloxone is used to rapidly reverse opioid overdose. It works by blocking opioid receptors in the brain, which stops the effects of opioids and temporarily reverses any life-threatening effects, including respiratory issues and unconsciousness. The time it takes to work is two to five minutes, and it only works in the body for 30 to 90 minutes. Therefore, it is possible for a person to still experience the effects of an overdose after naloxone wears off, meaning the person could require multiple doses if a potent opioid is in his or her system.[7] In addition, it is imperative after the use of naloxone that the person still seek immediate medical attention, usually by calling 911.

Naloxone is available over the counter in intranasal (IN) form (e.g., NARCAN) and by prescription in intramuscular (IM) form. The IN form may have a slightly longer onset of action, but both IN and IM generally work in two to five minutes. If the person has no opioids in his or her system, naloxone will not have any effect and is not harmful. Use of the IM form can involve the need to draw from a vial with a syringe. However, recently, Zimhi received U.S. Food and Drug Administration approval as a single-dose prefilled syringe.

People who use opioids, prescribed or not, should carry some form of naloxone and ensure people they are with know about it and know how to use it if needed. First responders routinely carry naloxone, but anyone can carry it for any reason at any time. In fact, kits are available that include naloxone, gloves and a CPR mask that can be carried or mounted anywhere in case of an overdose. One such kit, ODRescue, distributed by FFF Enterprises, contains space for separately purchased naloxone, a CPR mask appropriate for an adult or child, gloves, alcohol wipes and a document that lists the signs of opioid overdose and links to a training video to receive any needed education on naloxone and the kit's use. It can be mounted on a wall in a hard case, or carried in a soft pouch.[8]

It's important to identify and treat OUD promptly and effectively to avoid toxicity and overdose. The differential diagnosis of OUD includes malingering and other substance abuse disorders. Chronic pain disorders and untreated mental health issues may also appear similar to OUD. Evaluation and identification of the underlying medical and mental health disorders are of the utmost importance in making a definitive diagnosis of OUD. The tenets of comprehensive OUD care include:[5]

1) Timely diagnosis of OUD

2) Discussion of the OUD diagnosis (focusing on the immediate and long-term effects of opioids on morbidity and mortality)

3) Treatment of the underlying conditions associated with OUD (i.e., cognitive behavioral therapy and antidepressants for major depressive disorder)

4) Prescription of naloxone for the treatment of overdose

5) Prescription of opioid replacement therapy or referral to an addiction medicine specialist to manage opioid replacement therapy

6) Referral to a rehabilitation program to promote cognitive and behavioral changes

In addition, to commit to long-term recovery and maintenance, persons suffering from OUD need to recognize the problem and want to seek professional help; begin opioid detoxification safely and implement and comply with any medication-assisted therapy; engage in therapy; and build a support system.

Medically Necessary, But Potentially Dangerous

Opioid medications have a place in a medical treatment plan, but it's important to understand potential unwanted effects, including OUD and addiction. If OUD occurs, steps to recover need to begin promptly to avoid potential toxicity and overdose.

References

1. Johns Hopkins Medicine. Opioids. Accessed at www.hopkinsmedicine.org/health/treatment-tests-and-therapies/opioids.
2. U.S. Department of Labor. Risk Factors for Opioid Misuse, Addiction, and Overdose. Accessed at www.dol.gov/agencies/owcp/opioids/riskfactors.
3. Guy-Evans, O. Brain Reward System, June 30, 2025. Accessed at www.simplypsychology.org/brain-reward-system.html.
4. Kosten, TR, and George, TP. The Neurobiology of Opioid Dependence: Implications for Treatment. *Science & Practice Perspectives*, 2002 Jul;1(1):13-20. Accessed at pubmed.ncbi.nlm.nih.gov/18567959.
5. Dydyk, AM, Jain, NK, and Gupta, M. Opioid Use Disorder: Evaluation and Management. StatPearls, updated Jan. 17, 2024. Accessed at www.ncbi.nlm.nih.gov/books/NBK553166.
6. Højsted, J, and Sjøgren, P. Addiction to Opioids in Chronic Pain Patients: A Literature Review. *European Journal of Pain*, 2007 Jul;11(5):490-518.7. Accessed at pubmed.ncbi.nlm.nih.gov/17070082.
7. National Institute of Drug Abuse. Naloxone Drug Facts. Accessed at nida.nih.gov/publications/drugfacts/naloxone#.
8. OD Rescue. Accessed at www.odrescue.com.

MICHELLE GREER, RN, IgCN, is senior vice president of sales at Nufactor, a specialty infusion company.

MEDICAL DEVICES

44 Percent of COPD Patients with Acute Exacerbations Have Hypogammaglobulinemia

A single-center, proof-of-concept study has found that immunoglobulin G (IgG) hypogammaglobulinemia occurs in 44.7 percent of patients with acute exacerbations of chronic obstructive pulmonary disease (COPD) receiving triple therapy.

The study assessed 38 patients (median age 65 years; 32 percent men) with COPD receiving triple therapy who had at least two exacerbations that required steroids or a hospitalization within the past year to uncover how prevalent humoral immunodeficiency is in this population. According to the study, three factors made up this study's exclusion criteria: "known humoral dysfunction, ongoing immune globulin replacement therapy or chronic use of prednisone [greater than or equal to] 20 mg daily."

Within the total cohort, researchers found IgG hypogammaglobulinemia in 44.7 percent of patients (n=17). The median IgG concentration in this set of patients was 730.5 mg/dL. Additionally, these patients had a median immunoglobulin M concentration of 80 mg/dL and a median immunoglobulin A concentration of 203.5 mg/dL.

In terms of vaccination response, researchers observed a greater proportion of patients with an adequate response to tetanus/diphtheria vaccination vs. pneumococcal polyvalent vaccine-23 (95 percent [n=36] vs. 31.6 percent [n=12]).

"These findings suggest these patients with severe COPD may have underlying antibody/humoral immunodeficiency predisposing them to infections that lead to exacerbations," said S. Shahzad Mustafa, MD, chief of allergy, immunology and rheumatology at Rochester Regional Health. "These findings may also provide an alternative explanation of why therapy with macrolide antibiotics is effective in decreasing exacerbations, as it may be addressing the underlying immune deficiency."

Dr. Mustafa also highlighted the role steroids play in the underlying antibody/humoral immunodeficiency in this patient population: "It is important to note that these immune defects may be a result of frequent reliance on oral steroids, as steroid use is well known to lead to hypogammaglobinemia and potentially also decrease response to vaccination."

When analyzing cluster of differentiation (CD) counts, a similar proportion of patients had CD19 and CD4 counts deemed low (23.7 percent [n=9] and 21 percent [n=8]). The median CD19 count was 122 cells/mm^3, and the median CD4 count was 816 cells/mm^3.

Lastly, researchers reported that a little more than one-third of the study population (34.2 percent [n=13]) had specific antibody deficiency based on diagnostic criteria.

Hornick, I. 44% of Patients with Acute Exacerbations of COPD Have Hypogammaglobulinemia. Healio, March 2, 2025. Accessed at www.healio.com/news/pulmonology/20250302/44-of-patients-with-acute-exacerbations-of-copd-have-hypogammaglobulinemia.

RESEARCH

Review Shows fSCIG 10% May Offer Advantages for Some PI Patients

An overview of data published to date relating to the safety and tolerability of facilitated subcutaneous immune globulin (fSCIG) 10% for the treatment of primary immunodeficiency (PI) diseases in pediatric patients has found that the reduced number of needle sticks required for fSCIG 10% administration than for conventional SCIG may offer advantages for patients with immune disorders that have compromised their skin integrity, and for those who experience needle phobia and treatment-associated anxiety.

In the review, eight studies (199 pediatric patients) were included for discussion, which found fSCIG 10% displays a low rate of treatment-related systemic adverse events, and the risk of treatment-related local adverse events diminishes with increased treatment exposure.

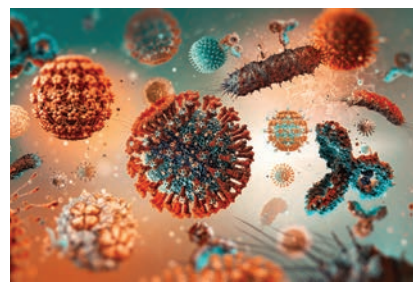
According to the researchers, studies evaluating prospective, patient-centric data collected on the experience of such patients may be a valuable addition to the evidence base. And, discussion of fSCIG 10% as a potential treatment option between families and healthcare professionals will enhance individualized treatment plans and shared decision-making, which are important considerations for patients with PI diseases.

Patel, NC, and Walter, JE. Facilitated Subcutaneous Immunoglobulin 10% Safety Among Pediatric Patients with Primary Immunodeficiency Diseases. *The Journal of Allergy and Clinical Immunology: In Practice*, July 2025. Accessed at www.sciencedirect.com/science/article/pii/S2213219825005367.

RESEARCH

Study Finds Infection Rates Were Lower in Patients Treated with cSCIG than fSCIG or IVIG

A study that compared the incidence of viral infections among patients receiving immune globulin replacement therapy (IGRT) via different administration routes during the winter season found the infection rate was lower in the conventional subcutaneous IG (cSCIG) route compared to the other IGRT routes.



In the study, 58 patients with primary immunodeficiency (PI) (33 males: 56.8 percent; 25 females: 43.1 percent) receiving IGRT were enrolled in the study. The median age of the patients was 17 years (IQR, 28.5), and the median age at diagnosis was 11.5 years (IQR, 25.5). Patients were monitored for their immunoglobulin (Ig) levels, nasal swabs were studied with PCR monthly and any viral infections were documented. The most common IGRT route was IVIG, used by 55.1 percent (n=32) of patients, followed by cSCIG 27.5 percent (n=16) of patients and facilitated SCIG (fSCIG) 17 percent (n=10) of patients. The overall frequency of viral infections was 3.79 percent, distributed among IGRT routes as follows: IVIG (n=32, 4.2 percent), cSCIG (n=16, 2.5 percent) and fSCIG (n=10, 4.4 percent). The infection rate in the cSCIG route was significantly lower than in the IVIG and fSCIG routes ($p<0.05$). The most common viral agents were adenovirus (21.8 percent), influenza A (16.4 percent) and human rhinovirus/enterovirus (16.4 percent).

The researchers concluded that in the three-month evaluation of patients, the infection rate was lower in the cSCIG route compared to the other IGRT routes. In addition, they found cSCIG is a safe and viable treatment option that can effectively improve the quality of life for immunocompromised patients.

Kose, H, Ozkan, G, Simsek, A, et al. Comparison of the Frequency of Viral Infections in Patients with Inborn Errors of Immunity Receiving Immunoglobulin by Different Routes. *European Journal of Pediatrics*, 2025 May 30;184(6):373. Accessed at pubmed.ncbi.nlm.nih.gov/40442532.

MEDICAL DEVICES

Takeda's New Devices for HYQVIA Infusion Can Reduce Preparation Steps By Up to One-Half

The U.S. Food and Drug Administration (FDA) has granted 510(k) clearance to Takeda's HyHub and HyHub Duo for patients 17 years of age and older that allow HYQVIA [immune globulin infusion (human), 10% with recombinant human hyaluronidase] to be transferred from vials without using a needle in a home environment or clinical setting.

The HYQVIA administration process consists of dual vial units (DVUs) including one vial of immune globulin (IG) and one vial of hyaluronidase. HyHub and HyHub Duo, which act as docking stations for these vials, were developed to simplify administration of HYQVIA by reducing the number of steps required to prepare the IG and hyaluronidase of the HYQVIA infusion by up to half compared to infusing with a pooling bag, depending on the device and number of DVUs used. HyHub and HyHub Duo also reduce the ancillary supplies required to prepare the infusion, and a dedicated carrier bag is available for convenience that enables room-to-room mobility.

"This milestone exemplifies our dedication to advancing innovative solutions that can enhance the treatment administration experience for people who rely on infusions of facilitated immune globulin like HYQVIA," said Kristina Allikmets, MD, PhD, senior vice president and head of research and development for the Plasma-Derived Therapies Business Unit at Takeda. "We designed HyHub and HyHub Duo, Takeda's first customized devices for use with a plasma-derived therapy, with input from patients and caregivers, demonstrating our focus on leveraging technology and deep insights to offer a patient-centric ecosystem of support throughout the treatment journey."

The duo devices are intended for use only with HYQVIA and will be available at no additional cost to patients. The company expects the devices to be available in the United States starting in the second half of fiscal year 2025.

Takeda Receives FDA 510(k) Clearance for HyHub™ and HyHub™ Duo Devices to Simplify HYQVIA® Administration. Takeda press release, July 21, 2025. Accessed at www.takeda.com/newsroom/newsreleases/2025/hyhub.

RESEARCH

Study Shows Shengxian Decoction May Help Treat Myasthenia Gravis

The results of a new study investigating the therapeutic effect of shengxian decoction (SXD), a traditional Chinese medicine, showed SXD may have the ability to treat myasthenia gravis (MG).

According to the study authors, traditional Chinese medicine (TCM) has unique advantages in MG treatment due to its holistic immune regulation and fewer side effects. Previous studies have shown that SXD can elevate TGF-β content, reduce IFN-γ and IL-17 content, lower serum AchR-Ab content and reduce AchR damage at neuromuscular junctions, thus improving the clinical symptoms of MG.

In the study, SXD significantly reversed loss of weight and muscle strength in rats with experimental autoimmune MG (EAMG), reducing the inflammation level and repairing the damage of thymic tissues in the model rats. SXD also altered the trend observed in EAMG rats by markedly increasing the proportion of pro-inflammatory Th1 and Th17 cells and reducing the expression of regulatory T cells (Treg), which plays a pivotal role in regulating the immune response. SXD was shown to upregulate the expression of FOXP3 and TEAD, downregulate the expression of TAZ and inhibit the binding of TAZ and TEAD. This phenomenon was subsequently validated in vitro, which may explain the potential mechanism of SXD in the treatment of EAMG.

Researchers concluded SXD can treat EAMG, and its mechanism of action may be achieved by activating the TAZ/TEAD pathway, promoting the degradation of the transcriptional co-activator TAZ and inhibiting its entry into the nucleus to bind to TEAD, thereby restoring the balance of the body's immune function. The present study demonstrates the therapeutic effect of SXD on EAMG and its possible mechanism of action, providing support for the clinical treatment of MG.

Wang, S, Zhang, X, Bai, Y, et al. Shengxian Decoction Alleviates Experimental Autoimmune Myasthenia Gravis by Enhancing the Immunosuppressive Activity of Regulatory T Cells via Hippo Pathway. *Journal of Ethnopharmacology*, 2025 Aug. 29;352:120250. Accessed at www.sciencedirect.com/science/article/abs/pii/S0378874125009407.

RESEARCH

New Blood Test Diagnoses Celiac Disease Without Causing Symptoms

Research published in the journal *Gastroenterology* showed a new blood test for gluten-specific T cells had a high accuracy in diagnosing celiac disease, even when gluten was not eaten. The new research could be a "game-changer" and help address "one of the biggest deterrents in current diagnostic practices, as every currently approved method to diagnose the disease requires people to eat gluten for several weeks, often enduring painful symptoms such as abdominal pain, diarrhea and bloating."

The study evaluated a blood test's ability to measure the immune marker interleukin 2 (IL-2). Researchers analyzed blood samples from 181 volunteers between the ages of 18 and 75 recruited at Royal Melbourne hospital, including 75 people with celiac disease who had been on a gluten-free diet for at least a year; 13 with active, untreated celiac disease; 32 with non-celiac gluten sensitivity; and 61 controls who did not have celiac disease nor gluten sensitivity. Their blood samples were mixed with gluten to see if the IL-2 signal appeared. Researchers found the test detected the condition with up to 90 percent sensitivity and 97 percent specificity, even in patients following a strict gluten-free diet. However, the test assesses an immune response to gluten,

so people on immunosuppressive drugs may not register a reaction.

Professor Peter Gibson, a gastroenterologist from Monash University, said that while further studies are needed, the research marks a "major step forward in the diagnosis of celiac disease at least in clinically uncertain circumstances."

May, N. New Blood Test for Coeliac Disease Can Diagnose Autoimmune Condition Without Need to Eat Gluten. The Guardian, June 10, 2025. Accessed at www.theguardian.com/society/2025/jun/10/new-blood-test-for-coeliac-disease-can-diagnose-autoimmune-condition-without-need-to-eat-gluten.

If you're an adult living with primary immunodeficiency (PI), ALYGLO™ can reduce the risk of infection from PI and its impact on your daily life.[1]
Based on a clinical study of 33 adults ages 17–70 in North America.[1]

0.03 SERIOUS INFECTIONS per patient year[1]

0.2 DAYS OF HOSPITALIZATION per patient year[1]

6 DAYS MISSED OF WORK OR SCHOOL per year[1]

INDICATION

ALYGLO™ is indicated for the treatment of primary humoral immunodeficiency (PI) in adults aged 17 years and older. This includes, but is not limited to, congenital agammaglobulinemia, common variable immunodeficiency (CVID), Wiskott-Aldrich syndrome, and severe combined immunodeficiencies.

IMPORTANT SAFETY INFORMATION

- **Thrombosis (blood clot formation) can happen with ALYGLO. Factors that increase this risk include advanced age, prolonged immobility, certain medical conditions, and cardiovascular risk factors.**
- **ALYGLO may affect the kidneys. In some cases, it can lead to acute renal failure or death.**
- **If you're at risk for blood clots or kidney problems, your doctor should give you ALYGLO at the lowest effective dose and infusion rate. Staying well-hydrated before treatment is essential.**
- ALYGLO is not suitable for people who have had severe allergic reactions to immune globulin or those with IgA deficiency and a history of hypersensitivity.
- If you experience any signs of hypersensitivity during the infusion, treatment should be stopped and epinephrine (an emergency medication) should be administered immediately.
- ALYGLO may cause hyperproteinemia, increased serum viscosity, and hyponatremia (low sodium levels).
- Aseptic Meningitis Syndrome (AMS) is a rare condition that can occur after receiving ALYGLO, especially with high doses or rapid infusion. Symptoms usually start within a few hours to 2 days after treatment. If AMS occurs, stopping ALYGLO usually leads to improvement within several days without lasting effects.
- Hemolysis, a breakdown of red blood cells, may occur. Some patients may experience delayed hemolytic anemia due to increased sequestration of red blood cells. Severe hemolysis-related kidney dysfunction or disseminated intravascular coagulation has been reported.
- Transfusion-Related Acute Lung Injury (TRALI) is a rare complication characterized by severe respiratory distress, pulmonary edema, and fever. Patients with TRALI may need oxygen therapy and ventilator support.
- ALYGLO is made from human blood, which may carry a risk of transmitting infectious agents (such as viruses).
- After receiving ALYGLO, some antibodies from the treatment may temporarily show up in blood tests. This could lead to misleading results, so your healthcare provider will consider this when interpreting lab results.
- Common side effects include headache, nausea/vomiting, fatigue, nasal/sinus congestion, rash, arthralgia, diarrhea, muscle pain/aches, infusion site pain/swelling, abdominal pain/discomfort, cough, and dizziness.

Reference: 1. ALYGLO Prescribing Information. GC Biopharma; 2023.

For more information about ALYGLO, talk to your doctor and see Brief Summary of Prescribing Information on next page.

GC Biopharma

Alyglo™
immune globulin intravenous, human-stwk 10% liquid

BRIEF SUMMARY OF PRESCRIBING INFORMATION
Please see full Prescribing Information at ALYGLO.com.

WARNING: THROMBOSIS, RENAL DYSFUNCTION and ACUTE RENAL FAILURE

See full prescribing information for complete boxed warning.

- **Thrombosis may occur with immune globulin intravenous (IGIV) products, including ALYGLO. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling vascular catheters, hyperviscosity, and cardiovascular risk factors.**
- **Renal dysfunction, acute renal failure, osmotic nephropathy, and death may occur with the administration of IGIV products in predisposed patients.**
- **Renal dysfunction and acute renal failure occur more commonly in patients receiving IGIV products containing sucrose. ALYGLO does not contain sucrose.**
- **For patients at risk of thrombosis, renal dysfunction or renal failure, administer ALYGLO at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.**

INDICATIONS AND USAGE

ALYGLO is a 10% immune globulin liquid for intravenous injection, indicated for the treatment of primary humoral immunodeficiency (PI) in adults. This includes, but is not limited to, the humoral immune defect in congenital agammaglobulinemia, common variable immunodeficiency (CVID), X-linked agammaglobulinemia, Wiskot-Aldrich syndrome, and severe combined immunodeficiency (SCID).

DOSAGE AND ADMINISTRATION

For intravenous use only.

Dose

Table 1 Recommended Dose

Dose	Infusion Number	Initial Infusion Rate	Maintenance Infusion Rate
300 - 800 mg/kg body weight every 21 or 28 days	For the 1st Infusion	1 mg/kg/min (0.01 mL/kg/min)	Double the infusion rate every 30 minutes (if tolerated) up to 8 mg/kg/min (0.08 mL/kg/min)
300 - 800 mg/kg body weight every 21 or 28 days	From the 2nd Infusion	2 mg/kg/min (0.02 mL/kg/min)	Double the infusion rate every 15 minutes (if tolerated) up to 8 mg/kg/min (0.08 mL/kg/min)

Significant differences in the half-life of IgG among patients with PI may necessitate the dose and frequency of immunoglobulin therapy to vary from patient to patient. Determine the proper dose and frequency by monitoring clinical response.

Measles Exposure

If a patient has been exposed to measles, consult with physician to administer an extra dose of IGIV as soon as possible and within 6 days of exposure. A dose of 400 mg/kg should provide a serum level > 240 mIU/mL of measles antibodies for at least two weeks.

If a patient is at risk of future measles exposure and receives a dose of less than 530 mg/kg every 3 - 4 weeks, then the dose should be increased to at least 530 mg/kg. This should provide a serum level of 240 mIU/mL of measles antibodies for at least 22 days after infusion.

Administration

- Monitor vital signs throughout the infusion. Slow or stop the infusion if adverse reactions occur. If symptoms subside, the infusion may be resumed at a lower rate that is comfortable for the patient.
- Ensure that patients with pre-existing renal insufficiency are not volume depleted. For patients at increased risk of renal dysfunction or thrombotic events, administer ALYGLO at the minimum infusion rate practicable, and consider discontinuation of administration if renal function deteriorates [*see Boxed Warning, Warnings and Precautions*].
- After administration, the infusion line may be flushed with either normal saline or 5% dextrose in water.

CONTRAINDICATIONS

ALYGLO is contraindicated in:

- Patients who have a history of anaphylactic or severe system reaction to the administration of human immune globulin.
- IgA-deficient patients with antibodies to IgA and a history of hypersensitivity [*see Warnings and Precautions*].

WARNINGS AND PRECAUTIONS

Hypersensitivity: Severe hypersensitivity reactions may occur[1]. In case of hypersensitivity, discontinue ALYGLO infusion immediately and institute appropriate treatment. Have epinephrine available for immediate treatment of severe acute hypersensitivity reactions.

ALYGLO contains trace amounts of IgA (≤ 100 mcg/mL). Patients with known antibodies to IgA may have a greater risk of developing potentially severe hypersensitivity and anaphylactic reactions. ALYGLO is contraindicated in IgA-deficient patients with antibodies against IgA or a history of hypersensitivity reaction [*see Contraindications*].

Thrombotic Events: Thrombosis may occur following treatment with ALYGLO[1]. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling central vascular catheters, hyperviscosity and cardiovascular risk factors. Thrombosis may occur in the absence of known risk factors.

Consider baseline assessment of blood viscosity in patients at risk for hyperviscosity, including patients with cryoglobulins, fasting chylomicronemia/markedly high triacylglycerols (triglycerides), or monoclonal gammopathies. For patients at risk of thrombosis, administer ALYGLO at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity [*see Boxed Warning, Dosage and Administration*].

Renal Failure: Renal dysfunction, acute renal failure, osmotic nephropathy, and death[1] may occur upon use of ALYGLO. Ensure that patients are not volume-depleted before administering ALYGLO. Monitor renal function and urine output periodically, especially in patients who are at higher risk of renal failure. Assess renal function, including measurement of blood urea nitrogen (BUN) and serum creatinine before the initial infusion of ALYGLO and at appropriate intervals thereafter. If renal function deteriorates, consider discontinuing ALYGLO. In patients who are at risk of developing renal dysfunction, because of pre-existing renal insufficiency or predisposition to acute renal failure (such as diabetes mellitus, hypovolemia, overweight, use of concomitant nephrotoxic medicinal products or age > 65 years), administer ALYGLO at the minimum infusion rate practicable [*see Boxed Warning, Dosage and Administration*].

Hyperproteinemia, Increased Serum Viscosity, and Hyponatremia: Hyperproteinemia, increased serum viscosity, and hyponatremia may occur in patients receiving ALYGLO. It is critical to clinically distinguish true hyponatremia from a pseudohyponatremia that is associated with or causally related to hyperproteinemia with concomitant decreased calculated serum osmolality or elevated osmolar gap. Such treatment aimed at decreasing serum free water in patients with pseudohyponatremia may lead to volume depletion, a further increase in serum viscosity, and a possible predisposition to thrombotic events[1].

Aseptic Meningitis Syndrome (AMS): AMS may occur with ALYGLO. AMS usually begins within several hours to 2 days following ALYGLO treatment. Discontinuation of treatment has resulted in remission of AMS within several days without sequelae[1].

AMS may occur more frequently with high doses (2 g/kg) and/or rapid infusion of ALYGLO. AMS is characterized by the following signs and symptoms: Severe headache, nuchal rigidity, drowsiness, fever, photophobia, painful eye movements, nausea, and vomiting. Cerebrospinal fluid (CSF) studies frequently reveal pleocytosis up to several thousand cells per cubic millimeter, predominantly from the granulocytic series, and elevated protein levels up to several hundred mg/dL, but negative culture results. Conduct a thorough neurological examination on patients exhibiting such signs and symptoms, including CSF studies, to rule out other causes of meningitis.

Hemolysis: ALYGLO may contain blood group antibodies that can act as hemolysins and induce *in vivo* coating of red blood cells (RBCs) with immunoglobulin, causing a positive direct antiglobulin test (DAT) (Coombs test) result and hemolysis[1]. Delayed hemolytic anemia due to enhanced RBC sequestration, and acute hemolysis, consistent with intravascular hemolysis, have been reported. Cases of severe hemolysis-related renal dysfunction/failure or disseminated intravascular coagulation have occurred following infusion of IGIV.

Hemolysis (cont.):

The following risk factors may be associated with the development of hemolysis following IGIV administration: High doses (e.g., 2 g/kg or more), given either as a single administration or divided over several days, and non-O blood group. Other individual patient factors, such as an underlying inflammatory state (as may be reflected by, for example, elevated C-reactive protein or erythrocyte sedimentation rate), have been hypothesized to increase the risk of hemolysis following administration of IGIV[1], but their role is uncertain.

Closely monitor patients for clinical signs and symptoms of hemolysis, particularly patients with risk factors noted above. Consider appropriate laboratory testing in higher risk patients, including measurement of hemoglobin or hematocrit.

If clinical signs and symptoms of hemolysis or a significant drop in hemoglobin or hematocrit have been observed, perform confirmatory laboratory testing, including direct antiglobulin test. If transfusion is indicated for patients who develop hemolysis with clinically compromising anemia after receiving ALYGLO (immune globulin intravenous, human-stwk), perform adequate cross-matching to avoid exacerbating ongoing hemolysis.

Transfusion-Related Acute Lung Injury (TRALI): Noncardiogenic pulmonary edema [Transfusion-Related Acute Lung Injury (TRALI)] may occur in patients administered ALYGLO[1]. TRALI is characterized by severe respiratory distress, pulmonary edema, hypoxemia, normal left ventricular function, and fever. Signs and symptoms typically appear within 1 to 6 hours following treatment. Patients with TRALI may be managed using oxygen therapy with adequate ventilator support.

Monitor patients for pulmonary adverse reactions. If TRALI is suspected, perform appropriate tests for the presence of antineutrophil antibodies and anti-human leukocyte antigen (HLA) antibodies in both the product and the patient's serum.

Transmissible Infectious Agents: Because ALYGLO is made from human blood, it may carry a risk of transmitting infectious agents, e.g., viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent. The risk of infectious agent transmission has been reduced by screening plasma donors and by including virus inactivation/removal steps in the manufacturing process of ALYGLO.

Report all infections thought by a physician possibly transmitted by ALYGLO to GC Biopharma USA, Inc. at 1-833-426-6426. Discuss the risks and benefits of its use with the patient before prescribing or administering this product.

Monitoring Laboratory Tests

- Periodic monitoring of renal function and urine output is particularly important in patients at increased risk of developing acute renal failure. Assess renal function, including measurement of blood urea nitrogen (BUN) and serum creatinine before the initial infusion of ALYGLO and at appropriate intervals thereafter.
- Because of the potential for increased risk of thrombosis with ALYGLO, consider baseline assessment of blood viscosity in patients at risk for hyperviscosity, including those with cryoglobulins, fasting chylomicronemia/markedly high triacylglycerols (triglycerides), or monoclonal gammopathies.
- If signs and/or symptoms of hemolysis are present after an infusion of ALYGLO, perform appropriate laboratory testing for confirmation.
- If TRALI is suspected, perform appropriate tests for the presence of anti-neutrophil antibodies in both the product and patient's serum.

Interference with Laboratory Tests: After infusion of immunoglobulin, the transitory rise of the various passively transferred antibodies in the patient's blood may yield positive serological testing results, with the potential for misleading interpretation. Passive transmission of antibodies to erythrocyte antigens (e.g., A, B, and D) may cause a positive direct or indirect antiglobulin (Coombs) test.

ADVERSE REACTIONS

The most common adverse reactions, observed in ≥ 5% of study subjects, were headache, nausea/vomiting, fatigue, nasal/sinus congestion, rash, arthralgia, diarrhea, muscle pain/aches, infusion site pain/swelling, abdominal pain/discomfort, cough, and dizziness.

Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

In an open-label, single-arm, multicenter, non-randomized clinical trial, 33 subjects with primary humoral immunodeficiency received doses of ALYGLO ranging from 319 mg/kg to 817 mg/kg every 21 days or 28 days for up to 12 months.

The passive transfer of antibodies with IGIV administration may interfere with the response to live virus vaccines such as measles, mumps, rubella, and varicella. Immunizing physicians should be informed of recent IGIV therapy so that appropriate measures may be taken.

Twenty-eight subjects (85%) experienced a total of 145 temporally associated adverse reactions (adverse events that occurred during or within 72 hours after the end of an infusion) during the study. The temporally associated ARs were headache (13 subjects, 39%), nausea/vomiting (11 subjects, 33%), fatigue (6 subjects, 18%), nasal/sinus congestion (5 subjects, 15%) rash (4 subjects, (12%), arthralgia, diarrhea (3 subjects, 9% each), muscle pain/aches, infusion site pain/swelling, abdominal pain/discomfort, cough, dizziness (2 subjects, 6% each).

These are presented in Table 2. There were no deaths and no adverse reactions leading to withdrawal from the study.

Table 2 Adverse Reactions* (ARs) (within 72 hours after the end of an ALYGLO infusion) in ≥ 5% of Subjects

Adverse Reactions (ARs)	No. of Subjects Reporting ARs (Percentage of Subjects) [N[1]=33]	No. of Infusions with ARs (Percentage of Infusions) [N[2]=427]
Headache	13 (39)	32 (7.5)
Nausea/vomiting	11 (33)	20 (4.7)
Fatigue	6 (18)	18 (4.2)
Nasal/sinus congestion	5(15)	5 (1.2)
Rash	4 (12)	4 (0.9)
Arthralgia	3 (9)	4 (0.9)
Diarrhea	3 (9)	3 (0.7)
Muscle pain/aches	2 (6)	7 (1.6)
Infusion site pain/swelling	2 (6)	6 (1.4)
Abdominal pain/discomfort	2 (6)	3 (0.7)
Cough	2 (6)	2 (0.5)
Dizziness	2 (6)	2 (0.5)

*Adverse events that occurred during or within 72 hours after the end of an infusion
[1]Total number of subjects
[2]Total number of infusions

Postmarketing Experience: Because postmarketing reporting of adverse reactions is voluntary and from a population of uncertain size, it is not always possible to reliably estimate the frequency of these reactions or establish a causal relationship to product exposure. The following adverse reactions have been identified and reported during the post-approval use of marketed IGIV products:

Blood and lymphatic system disorders: leukopenia, hemolysis, pancytopenia; **Immune system disorders:** hypersensitivity (e.g., anaphylaxis), anaphylactic shock, anaphylactic reaction, anaphylactoid reaction, allergic reaction, angioedema, face edema; **Metabolic and nutritional disorders:** fluid overload, (pseudo) hyponatremia; **Psychiatric disorders:** agitation, confusion, anxiety, nervousness; **Nervous system disorders:** coma, loss of consciousness, seizures, (acute) encephalopathy, cerebrovascular accident, stroke, aseptic meningitis, migraine, speech disorder, paresthesia, hypoesthesia, photophobia, tremor; **Cardiac disorders:** myocardial infarction, cardiac arrest, angina pectoris, tachycardia, bradycardia, palpitations, cyanosis; **Vascular disorders:** hypotension, (deep vein) thrombosis, peripheral circulatory failure/collapse, hypertension, phlebitis, pallor; **Respiratory, thoracic and mediastinal disorders:** apnea, Acute Respiratory Distress Syndrome (ARDS), TRALI, respiratory failure, pulmonary embolism, pulmonary edema, bronchospasm, dyspnea, hypoxia, wheezing, cough; **Gastrointestinal disorders:** diarrhea, hepatic dysfunction, abdominal discomfort; **Skin and subcutaneous tissue disorders:** eczema, urticaria, rash (erythematous), dermatitis, pruritus, alopecia, Stevens-Johnson syndrome epidermolysis, skin exfoliation, erythema (multiform), dermatitis (e.g., bullous dermatitis); **Musculoskeletal and connective tissue disorders:** back pain, arthralgia, myalgia, musculoskeletal pain, muscle stiffness, pain in extremity, neck pain, muscle spasm; **Renal and urinary disorders:** acute renal failure, osmotic nephropathy, renal pain; **General disorders and administration site conditions:** injection-site reaction, chills, chest pain or discomfort, hot flush, flushing, flu-like illness, feeling cold or hot, edema, hyperhidrosis, malaise, asthenia, lethargy, burning sensation; **Investigations:** hepatic enzymes increased, oxygen saturation decreased, falsely elevated erythrocyte sedimentation rate, positive direct antiglobulin (Coombs) test.

DRUG INTERACTIONS

Clinical studies have not evaluated mixture of ALYGLO with other drugs and intravenous solutions. It is recommended that ALYGLO is administered separately from other drugs or medications which the patient may be receiving. Do not mix the product.

Transitory rise of the various passively transferred antibodies in the patient's blood after infusion of immunoglobulin may yield positive serological testing results, with the potential for misleading interpretation.

USE IN SPECIFIC POPULATIONS

Geriatric use: In patients over age 65 or in any patient at risk of developing renal insufficiency, do not exceed the recommended dose, and infuse ALYGLO at the minimum infusion rate practicable.

Reference: 1. ALYGLO Prescribing Information. GC Biopharma USA, Inc.; 2023.

0008-01-2024 3/2024

Manufactured by:
GC Biopharma Corp.
107 Ihyeon-ro 30-beongil
Giheung-gu, Yongin-si
Gyeonggi-do 16924
Republic of Korea
U.S. License No. 2033

Distributed by:
GC Biopharma USA, Inc.
500 Frank W. Burr Boulevard
Teaneck, NJ 07666 USA

A Holistic Approach to Living with Chronic Illness

Chronic illness patients can find balance through IG therapy, mind-body wellness and everyday lifestyle changes.

By Janelle Salo, RN

A HOLISTIC APPROACH is beneficial for managing chronic illness. Looking at the whole picture, such as your habits, emotions and surroundings, can make a big difference when dealing with long-term health issues. Instead of treating only symptoms, this method helps you feel stronger and more in control of your day-to-day life. It's about supporting your body and mind in ways that work together.

Understanding Holistic Health

What is holistic health, and how does it differ from conventional medicine? Taking care of yourself isn't just about doctor visits or prescriptions; it's also about how you eat, move, think and even connect with others. This kind of care focuses on the bigger picture, not just one part of you. It seeks to understand what's really going on and how everything in your life plays a role in how you feel.

It's important to address the mind, body and spirit for overall well-being. When you care for all parts of yourself, not just your physical health, you often start to feel better in ways you didn't expect. Boosting your mood, improving sleep and feeling more energized can all come from making small, positive shifts. It's about creating balance in your life so you feel more like you again.

Taking care of yourself isn't just about doctor visits or prescriptions; it's also about how you eat, move, think and even connect with others.

Mind-Body Connection in Chronic Illness

Mental well-being affects physical symptoms. Your thoughts and feelings can have a real impact on how your body feels. Stress, anxiety or feeling down can sometimes make pain worse or slow down healing.[1] Taking care of your emotional health can help you feel better overall and even help your body recover faster.

Techniques can help with stress management and emotional regulation. Simple practices such as focusing on your breath or taking quiet time each day can help you feel more calm and more in control.[2] These habits give your brain a break and help you handle difficult emotions without feeling overwhelmed. Over time, they can make a big difference in how you react to stress.

Nutrition and Diet for Holistic Healing

An anti-inflammatory diet is important for holistic healing. What you eat can actually play a big role in how your body feels. Choosing fresh foods can help calm things down inside and give your system the fuel it needs to repair itself and stay strong.[3] It's not about strict rules, just making smarter choices that help you feel better. These foods can not only help reduce inflammation but also support overall health:

1) Berries (such as blueberries, strawberries and raspberries) are packed with antioxidants,[4] which help fight inflammation.

2) Leafy greens (such as spinach, kale and Swiss chard) are full of vitamins and minerals that promote overall health.

3) Nuts (especially almonds and walnuts) are a good source of healthy fats that can help lower inflammation.

4) Olive oil contains oleocanthal,[5] a compound that has anti-inflammatory properties.

5) Ginger is known for its ability to reduce pain and inflammation.

6) Tomatoes are full of lycopene,[6] which helps reduce inflammation in the body.

Natural remedies can support chronic illness management. Adding certain vitamins or herbs[7] to your routine can give your body extra support when you're not feeling your best. Just make sure to talk with a healthcare provider before starting anything new. Once you get the OK to try them, these natural helpers can help boost energy, strengthen your immune system and ease symptoms like pain or fatigue:

1) Vitamin D supports immune health and may help with mood and muscle strength. Many people with chronic conditions have low levels of this important nutrient.

2) Magnesium helps with muscle function, sleep and stress relief. It can also ease headaches and cramps.

3) Omega-3 fatty acids are found in flaxseed oil and are great for reducing inflammation and supporting heart and brain health.

4) Turmeric (curcumin) is a powerful anti-inflammatory spice that may help with joint pain and digestion.

5) Ginger can help ease nausea, aid digestion and reduce inflammation.

6) Probiotics support gut health, which is linked to immunity and overall wellness.

Physical Activity and Chronic Illness

Yoga, tai chi and manageable stretching routines are key to managing chronic illness. These simple routines can be done daily to help relax your body and mind:

1) Yoga. Try these poses:

• Child's pose (balasana): Start on your knees, sit back onto your heels and then lower your chest toward the floor, reaching your arms out in front of you. This pose helps relax your back and shoulders.

• Downward dog (adho mukha svanasana): From a tabletop position, lift your hips toward the ceiling, straightening your legs and reaching your heels toward the floor. This stretches your back, hamstrings and calves.

2) Tai chi. Try these moves:

• Commencing form: Stand with your feet shoulder-width apart, arms relaxed by your sides. Slowly raise your arms in front of you, palms facing down, as you inhale. As you exhale, lower your arms back down, staying relaxed and focused on your breath.

• Wave hands like clouds: Start with your hands in front of your chest, then gently shift your weight from side to side while your arms move in a flowing, circular motion. Doing this can help with balance and relaxation.

3) Manageable stretching routine. Try these stretches:

• Neck stretch: Slowly tilt your head to one side, bringing your ear toward your shoulder. Hold for 20 to 30 seconds, then switch sides. Doing this stretch helps release tension in the neck.

• Seated forward fold: Sit on the floor with your legs extended straight in front of you. Slowly hinge at your hips and reach for your toes, keeping your back straight. Hold for 20 to 30 seconds to stretch your hamstrings and lower back.

Staying active can improve symptoms and overall quality of life. Getting your body moving on a regular basis can help you feel stronger, sleep better and even ease pain.[8] You don't need to perform intense workouts; just staying active in ways you enjoy can make a big difference — even going for a walk with your dog or a loved one counts! It's all about keeping your body and mind in sync so you feel more like yourself.

Herbal Remedies and Alternative Therapies

Common herbs can help provide pain relief and reduce inflammation and stress. Some plants have natural powers that can help with things such as pain, swelling or feeling overwhelmed. For instance:

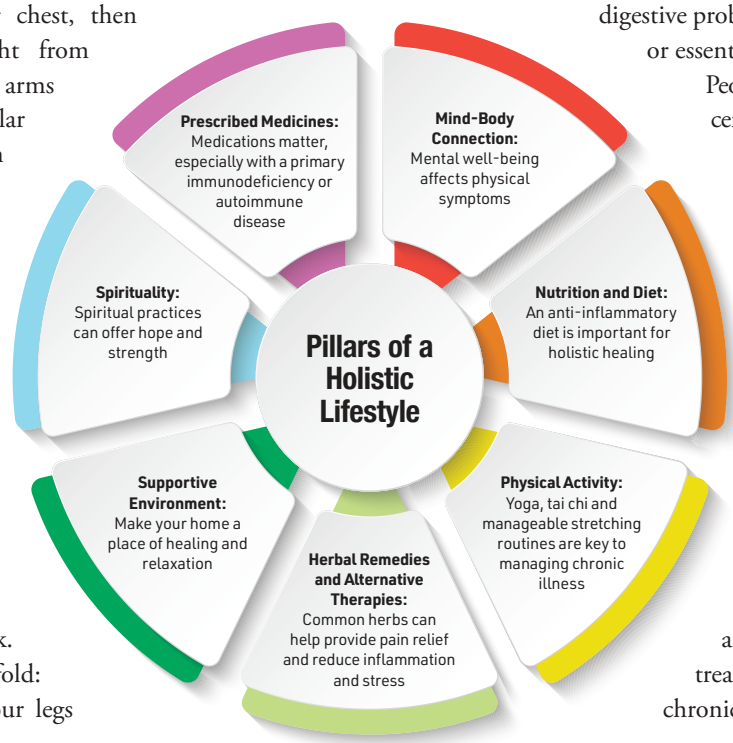
1) Turmeric is known for reducing inflammation and easing joint pain, thanks to its active compound, curcumin.[9]

2) Ginger is great for calming stomach issues and helping with muscle pain and soreness.

3) Chamomile is often made into a tea to relax the body and mind; it is especially helpful for stress and sleep.

4) Lavender is known for its calming scent; it may ease anxiety and tension when used in teas or essential oils.

5) Peppermint can soothe headaches and digestive problems; it is often used in teas or essential oils.



People have used herbs for centuries to support their health in gentle, effective ways. When used safely, they can be a helpful part of feeling better day by day. However, "natural" doesn't always mean risk-free, so it's smart to check with a healthcare provider before starting any new herbs, especially if you're taking prescription medication(s).

Acupuncture, massage and other complementary treatments can also help with chronic illness. Sometimes, getting

extra support outside of typical medical care helps you feel more at ease. Techniques such as gentle bodywork or targeted pressure points can reduce pain, relax tight muscles and even boost your mood. These options work alongside regular care to help you feel more balanced and comfortable:

1) Acupuncture involves placing tiny needles at specific points to help reduce pain, stress and inflammation.[10]

2) Massage therapy helps relax muscles, improve circulation and ease tension or soreness.[11]

3) Aromatherapy uses essential oils (such as lavender or eucalyptus) to calm the mind or ease physical discomfort.

4) Sound therapy uses calming tones or vibrations (such as singing bowls or tuning forks) to support emotional and physical well-being.

These therapies are often used alongside regular treatment to help you feel more supported and at ease.

Building a Supportive Environment

Make your home a place of healing and relaxation. Where you spend your time can affect how you feel physically and emotionally. Setting up a calm, cozy and peaceful space can help your body relax and recharge. Simple touches such as soft lighting, plants or calming scents can turn any room into a personal sanctuary. Consider these suggestions:

1) *Keep it clutter-free.* A tidy space can help clear your mind and reduce stress.

2) *Use soft, natural lighting.* Dimming lamps, burning candles or letting in natural sunlight can make a space feel warm and inviting.

3) *Add calming scents.* Essential oils such as lavender, eucalyptus or sandalwood can promote relaxation.

4) *Bring in nature.* Plants or flowers add life to a room and help purify the air.

5) *Include cozy textures.* Blankets, pillows and soft rugs make your space feel comforting and safe.

6) *Play gentle sounds.* Nature sounds, calming music or white noise can help you unwind.

7) *Create a quiet corner.* Set up a small space for resting, reading, journaling or meditating.

Little changes can go a long way in creating a space that supports healing and calm.

Support groups and online communities are also important. Dealing with a long-term health issue can feel really isolating, but you don't have to go through it alone. Talking to people who genuinely understand what you're facing can bring comfort, encouragement and new ideas. Whether in person or online, finding your community[12] can make the journey a little easier.

Getting your body moving on a regular basis can help you feel stronger, sleep better and even ease pain.

The Role of Spirituality in Healing

Spiritual practices can offer hope and strength. When life feels overwhelming, having something bigger to hold on to can help you stay grounded. Whether through prayer, meditation or simply spending quiet time in nature, these practices can bring peace and a sense of direction. They remind you that you're more than your illness and that hope is always within reach.

Try these daily practices for spiritual wellness:

1) *Meditation.* Sit quietly for five minutes, close your eyes and focus on your breath. If your mind wanders, gently bring your attention back to your breathing.

2) *Prayer.* Say a short, heartfelt message such as, "Thank you for today. Please give me the strength and peace I need to get through whatever comes."

3) *Journaling.* Write down a few thoughts or feelings at the end of your day. For example: "Today was tough, but I'm proud I got through it. I felt supported when my friend checked in."

4) *Gratitude.* Each morning or night, list three things you're thankful for. For example: "Warm tea, a kind text from my cousin and the sound of rain."

These small acts can help you feel more grounded, peaceful and supported one day at a time.

The Role of Prescribed Medications in a Holistic Approach

Medications matter. Primary immune deficiency (PI) and autoimmune diseases occur when the immune system doesn't function properly.[13] For individuals with PI, such as common variable immune deficiency (CVID), immune globulin therapy[14] helps strengthen the immune system

and prevent infections.[15] It is also utilized in autoimmune diseases such as lupus[16] to help regulate the immune system and reduce inflammation.

When life feels overwhelming, having something bigger to hold on to can help you stay grounded.

Taking the medications your doctor gives you isn't just about feeling better right now; it's about keeping things from getting worse later. When dealing with an immune system issue, such as PI or an autoimmune disease, it's important to take appropriate care. The right treatment can help your body stay stronger and avoid flare-ups. Skipping doses or stopping early might seem harmless, but it can actually make things harder in the long run. Medications are a big part of the game plan to help you stay as healthy and active as possible.

You can combine conventional medicine with holistic practices. You don't have to choose between medications and natural methods; they can actually work really well together. While medications target specific symptoms or issues, techniques such as eating healthy food, participating in gentle movement and reducing stress help support your whole body. When you combine both, you're giving yourself the best chance to feel better and stay strong. It's all about finding balance and doing what works best for you.

However, it goes without saying that before starting anything new, you should consult with your healthcare provider. Trying natural remedies or new wellness habits can be exciting, but looping in your doctor first is extremely important.[17] Some herbs or supplements might not mix well with your medications, and your provider can help you avoid any surprises. Plus, he or she can support you in creating a safe and effective plan. Think of your healthcare team as your partner in making wise, healthy choices.

Final Thought

Taking care of a chronic illness isn't just about treating the symptoms; it's about caring for your whole self. When you combine medical treatments with healthy habits, emotional support and stress relief, you give yourself the best chance to feel good inside and out. Everyone's journey is different, but a well-rounded approach can make that journey a little smoother. You deserve a plan that supports all of you.

Here's how you can take small, manageable steps toward holistic living:

- Start your day with a few deep breaths or a quick stretch.
- Swap one processed snack for something fresh such as fruit or nuts.
- Take a short walk, or move your body in a way that feels good.
- Write down three things you're grateful for each night.
- Spend a few minutes outside to connect with nature.
- Try a calming activity such as journaling or listening to peaceful music.

These little changes can add up and will make a big difference over time!

References

1. Chu, B, Marwaha, K, Sanvictores, T, et al. Physiology, Stress Reaction. *StatPearls*, January 2025. National Library of Medicine. Accessed at www.ncbi.nlm.nih.gov/books/NBK541120.
2. Mayo Clinic. Mindfulness Exercises. Accessed at www.mayoclinic.org/healthy-lifestyle/consumer-health/in-depth/mindfulness-exercises/art-20046356.
3. Mayo Clinic Health System. Want to Ease Chronic Inflammation? Start with Your Grocery List. Accessed at www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/want-to-ease-chronic-inflammation.
4. Golovinskaia, O, and Wang, C-K. Review of Functional and Pharmacological Activities of Berries. *Molecules*, 2021 Jun 25;26(13):3904. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC8271923.
5. González-Rodríguez, M, Ait Edjoudi, D, Cordero-Barreal, A, et al. Oleocanthal, an Antioxidant Phenolic Compound in Extra Virgin Olive Oil (EVOO): A Comprehensive Systematic Review of Its Potential in Inflammation and Cancer. *Antioxidants (Basel)*, 2023 Dec 14;12(12):2112. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC10741130.
6. Khan, UM, Sevindik, M, Zarrabi, A, et al. Lycopene: Food Sources, Biological Activities, and Human Health Benefits. *Oxidative Med Cell Longevity*, 2021 Nov 19;2021:2713511. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC8626194.
7. National Institutes of Health. Dietary Supplements for Immune Function and Infectious Diseases. Accessed at ods.od.nih.gov/factsheets/ImmuneFunction-HealthProfessional.
8. Cleveland Clinic. The Many Benefits of a Cardio Workout. Accessed at health.clevelandclinic.org/the-many-benefits-of-a-cardio-workout.
9. Sharifi-Rad, J, El Rayess, Y, and Rizk, AA. Turmeric and Its Major Compound Curcumin on Health: Bioactive Effects and Safety Profiles for Food, Pharmaceutical, Biotechnological and Medicinal Applications. *Frontiers in Pharmacology*, 2020 Sept 15;11:01021. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC7522354.
10. Van Hal, M, Dydyk, AM, and Green, MS. Acupuncture. *StatPearls*, July 24, 2023. Accessed at www.ncbi.nlm.nih.gov/books/NBK532287.
11. Mayo Clinic Health System. Benefits of Massage Therapy. Accessed at www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/benefits-of-massage-therapy.
12. *IG Living* Magazine. Advocacy Groups. Accessed at www.igliving.com/life-with-ig/advocacy-groups.html.
13. Centers for Disease Control and Prevention. About Primary Immunodeficiency. Accessed at www.cdc.gov/primary-immunodeficiency/about/index.html.
14. Arumugham, VB, and Rayi, A. Intravenous Immunoglobulin (IVIG). StatPearls, July 3, 2023. Accessed at www.ncbi.nlm.nih.gov/books/NBK554446.
15. Cleveland Clinic. IVIG (Intravenous Immunoglobulin). Accessed at my.clevelandclinic.org/health/treatments/ivig-intravenous-immunoglobulin.
16. Lupus Foundation of America. Intravenous Immune Globulin (IVIG) Therapy. Accessed at www.lupus.org/resources/intravenous-immune-globulin-ivig-therapy.
17. *IG Living* Magazine. Connect with Patient Support. Accessed at www.igliving.com/resources/connect-patient-support.html.

JANELLE SALO, RN, is a holistic health and wellness writer in Maryland with a background in caring for patients with chronic diseases.

nufactor®
A SPECIALTY INFUSION COMPANY

BOOTH # 220

PROUD SPONSOR OF

2025 IgNS
NATIONAL CONFERENCE

Making a difference one patient at a time.

Specialty Solutions in Chronic Care
Immune Globulin | Factor | Infliximab

Scan QR Code to visit nufactor.com

Phone: (800) 323-6832 | **Referral Fax:** (855) 270-7347 | **nufactor.com**

FDA-approved for adult and pediatric patients aged 2 years and older with primary immunodeficiency (PI)

cutaquig®
Immune Globulin Subcutaneous (Human)-hipp, 16.5% solution

Count the reasons

to ask your care team about cutaquig

1 hour or less to **complete infusion***

2 or fewer **infusion sites**†‡

3 **flexible dosing** schedule options§

Not an actual patient.

*The estimated infusion duration for a 13 g (78 mL) weekly dose is approximately 45 minutes in an adult patient using 2 infusion sites, if tolerated, not including setup time.
†Depending on your dose and dosing schedule selected.
‡Most infusions only need 2 or fewer infusion sites.
§Every-other-week, weekly, or frequent dosing (2-7 times a week).

INDICATIONS AND USAGE

CUTAQUIG (Immune Globulin Subcutaneous [Human] - hipp) is a 16.5% immune globulin solution for subcutaneous infusion indicated for treatment of primary humoral immunodeficiency (PI) in adults and pediatric patients 2 years of age and older.

There are many forms of PI. Certain types of PI are associated with low immunoglobulin G (IgG), which are proteins that help fight infection.

CUTAQUIG is a liquid medicine for infusion that contains immunoglobulin G (IgG), which are proteins that help fight infection. It is made from human plasma that is donated by healthy people and contains antibodies that replace the missing antibodies in patients with PI.

CUTAQUIG is given under the skin (subcutaneous). Most of the time, infusions under the skin are given at home by self-infusion or by a caregiver. Only use CUTAQUIG by yourself after you have been instructed on use by a healthcare provider (HCP).

IMPORTANT SAFETY INFORMATION

WARNING: THROMBOSIS

See full Prescribing Information for complete BOXED WARNING

- **Thrombosis may occur with immune globulin products, including CUTAQUIG. Risk factors may include advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling vascular catheters, hyperviscosity, and cardiovascular risk factors.**
- **For patients at risk of thrombosis, administer CUTAQUIG at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk of hyperviscosity.**

What is the most important information I need to know about CUTAQUIG?

CUTAQUIG can cause the following serious reactions:

- Severe allergic reactions causing difficulty in breathing or skin rashes
- Blood clots in the heart, brain, lungs, or elsewhere in the body
- Severe headache, drowsiness, fever, painful eye movements, or nausea and vomiting
- Decreased kidney function or kidney failure
- Dark colored urine, swelling, fatigue, or difficulty breathing

CUTAQUIG is made from human blood. The risk of transmission of infectious agents, including viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent, and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent cannot be completely eliminated.

Scan to visit **CutaquigInfo.com** to learn more.

What should I know while taking CUTAQUIG?

- CUTAQUIG can make vaccines (like measles/mumps/rubella or chickenpox vaccines) not work as well for you. Before you get any vaccines, tell your HCP that you take CUTAQUIG
- Tell your HCP if you are pregnant, or plan to become pregnant, or if you are nursing

CUTAQUIG can cause serious side effects. If any of the following problems occur after starting CUTAQUIG, contact your HCP or call emergency services. If any of the following problems occur during CUTAQUIG infusion, stop the infusion immediately and contact your HCP or call emergency services:

- Hives, swelling in the mouth or throat, itching, trouble breathing, wheezing, fainting, or dizziness. These could be signs of a serious allergic reaction
- Bad headache with nausea, vomiting, stiff neck, fever, and sensitivity to light. These could be signs of irritation and swelling of the lining around your brain
- Reduced urination, sudden weight gain, or swelling in your legs. These could be signs of a kidney problem
- Pain, swelling, warmth, redness, or a lump in your legs or arms. These could be signs of a blood clot
- Brown or red urine, fast heart rate, yellow skin or eyes. These could be signs of a liver or blood problem
- Chest pain or trouble breathing, or blue lips or extremities. These could be signs of a serious heart or lung problem
- Fever over 100°F. This could be a sign of an infection

Ask your HCP whether you should have rescue medications available, such as antihistamines or epinephrine.

What are the possible or reasonably likely side effects of CUTAQUIG?

The most common side effects of CUTAQUIG are:

- Infusion site reactions (including but not limited to redness, swelling, itching, fluid in tissue, pain, mass, bruising)
- Headache
- Elevated body temperature

One or more of the following possible side effects may occur at the site of infusion; these may go away within a few hours and are less likely after the first few infusions:

- Mild or moderate pain
- Redness
- Itching

These are not all the possible side effects. Talk to your HCP about any side effect that bothers you or that does not go away.

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the US Food and Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

CUTAQUIG® is a registered trademark of Octapharma AG.

Please see brief summary of Full Prescribing Information on following page and Full Prescribing Information, including complete BOXED WARNING and Patient Information and Instructions for Use, at CutaquigInfo.com.

Pfizer | octapharma | Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H.
Distributed by Pfizer Labs, Division of Pfizer Inc.

PP-CQG-USA-0561

March 2023

cutaquig®
Immune Globulin Subcutaneous (Human)-hipp,16.5% solution

CONSUMER BRIEF SUMMARY

(CUTAQUIG: *cute-ah-quig*)

This brief summary highlights the most important information about CUTAQUIG. Please read it carefully before using CUTAQUIG and each time you get a refill, as there may be new information. This Patient Information does not take the place of talking with your healthcare provider about your medical condition or your treatment. If you have any questions after reading this, ask your healthcare provider. For more information, go to www.CutaquigInfo.com.

What is CUTAQUIG?

CUTAQUIG is a ready-to-use liquid solution of immunoglobulin G (IgG), also called antibodies, which protects the body against infection. CUTAQUIG is used to treat adult patients and pediatric patients 2 years of age and older with primary humoral immunodeficiency (PI).

There are many forms of PI. The most common types of PI result in an inability to make a very important type of protein called antibodies, which help the body fight off infections from bacteria or viruses. Regular administration of CUTAQUIG has been demonstrated to help your body to fight bacteria and viruses that cause infections. CUTAQUIG is made from human plasma that is donated by healthy people. CUTAQUIG contains antibodies collected from these healthy people; these antibodies replace the missing antibodies in patients with PI.

WARNING: THROMBOSIS

See full Prescribing Information for complete BOXED WARNING

- **Thrombosis may occur with immune globulin products, including CUTAQUIG. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling central vascular catheters, hyperviscosity, and cardiovascular risk factors.**
- **For patients at risk of thrombosis, administer CUTAQUIG at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk of hyperviscosity.**

Who should NOT use CUTAQUIG?

Do not use CUTAQUIG if you have ever had a severe allergic reaction to immune globulin or other blood products.

Tell your healthcare provider if you:

- Ever had any severe reaction to other immune globulin medicines
- Were told that you have a condition called IgA deficiency
- Have a history of heart or blood vessel disease
- Have had blood clots or thick blood
- Have been immobile for some time

CUTAQUIG can cause serious side effects. If any of the following problems occur after starting CUTAQUIG, contact your HCP or call emergency services. If any of the following problems occur during CUTAQUIG infusion, stop the infusion immediately and contact your HCP or call emergency services:

- Hives, swelling in the mouth or throat, itching, trouble breathing, wheezing, fainting, or dizziness. These could be signs of a serious allergic reaction
- Bad headache with nausea, vomiting, stiff neck, fever, and sensitivity to light. These could be signs of irritation and swelling of the lining around your brain
- Reduced urination, sudden weight gain, or swelling in your legs. These could be signs of a kidney problem
- Pain, swelling, warmth, redness, or a lump in your legs or arms. These could be signs of a blood clot
- Brown or red urine, fast heart rate, yellow skin or eyes. These could be signs of a liver or blood problem
- Chest pain or trouble breathing, or blue lips or extremities. These could be signs of a serious heart or lung problem
- Fever over 100°F. This could be a sign of an infection

CUTAQUIG is made from human blood. The risk of transmission of infectious agents, including viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent, and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent cannot be completely eliminated.

What should I tell my healthcare provider before using CUTAQUIG?

Talk to your healthcare provider about any medical conditions that you have or have had.

Tell your healthcare provider:

- That you are taking CUTAQUIG before you get a vaccination, as vaccines may not work while you are taking CUTAQUIG.
- About all of the prescription and non-prescription medicines you take, including over-the-counter medicines, dietary supplements, or herbal medicines.
- If you are pregnant, plan to get pregnant, or if you are nursing because CUTAQUIG might not be right for you.
- If you have diabetes. If you need to do glucose testing, your healthcare provider may tell you to use a different way to monitor your blood sugar levels on the day that you receive a CUTAQUIG infusion. Some types of blood glucose testing systems (glucometers) can falsely interpret the maltose contained in CUTAQUIG as glucose. If you are uncertain, ask your healthcare provider which glucose testing system you can use while using CUTAQUIG.

The most common side effects that may occur with CUTAQUIG are:

- Infusion site reactions (including but not limited to redness, swelling, itching, fluid in tissue, pain, mass, bruising)
- Headache
- Elevated body temperature

One or more of the following possible side effects may occur at the site of infusion; these may go away within a few hours and are less likely after the first few infusions:

- Mild or moderate pain
- Redness
- Itching

These are not all the possible side effects. Talk to your HCP about any side effect that bothers you or that does not go away. If you encounter any problems or experience side effects during or after the infusion, contact your healthcare provider. When doing so, keep your treatment diary or logbook with you to be able to give all necessary information.

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the US Food and Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

This brief summary is based on the CUTAQUIG Prescribing Information (October 2021).

CUTAQUIG® is a registered trademark of Octapharma AG.

Pfizer | octapharma® | Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H.
Distributed by Pfizer Labs, Division of Pfizer Inc.

Mental Health Support for Caregivers

Caring for a loved one with a chronic illness can be both rewarding and challenging. While the emotional and physical toll of caregiving can lead to feelings of isolation, exhaustion and even depression, there are practical ways to mitigate these outcomes.

By Trudie Mitschang

CAREGIVING IS A demanding role, often added to an already full plate of responsibilities. Whether you're a parent juggling the care of a chronically ill child alongside the needs of healthier siblings, supporting a sick partner while trying to maintain career momentum, or managing the care of an aging parent while seeking a sliver of "me time," the risk of facing mental health challenges is both real and significant.

According to the Cleveland Clinic,[1] more than 60 percent of family caregivers report burnout symptoms, including sleep disruption, mood disorders and reduced immune function. Keep in mind, burnout doesn't just hurt the caregiver — it also affects the quality of care loved ones receive. As a caregiver, it's easy to focus entirely on your loved one's needs, but it's important to remember you can't pour from an empty cup; taking care of yourself is essential to providing the best care.

Recognizing Symptoms of Burnout

Burnout can creep in gradually, especially for caregivers who are constantly putting others' needs before their own. Recognizing the early signs is crucial to preventing long-term emotional and physical exhaustion. By understanding what burnout looks like, you can take proactive steps to protect your physical and mental health. Common symptoms include:

- Emotional exhaustion: Feeling drained or overwhelmed by the demands of caregiving.
- Detachment: Developing a sense of emotional distance from your loved one or feeling indifferent toward his or her needs.
- Feelings of inadequacy: Believing you are not doing enough.
- Physical symptoms: Experiencing chronic fatigue, headaches or other stress-related ailments.

"In addition to the caregiving fatigue that exponentially drains one's energy, there is also the helplessness one feels when a loved one is suffering in a way we cannot mitigate, and the ever-present fear of a loved one passing that holds our positive emotions hostage," says Dinorah Nieves, PhD, a counselor, coach and behavioral scientist.[2]

Dr. Nieves not only understands the role of caregivers from a clinical standpoint but also from a personal one: She was her father's caregiver until he passed away. "Even with my education, training and experience, nothing prepares you for the pressure, stress and exhaustion of living through the caretaking experience," she says. "I had an incredibly supportive family to lean on and a partner, and the wherewithal to ask for help. I think that is the greatest tool one can utilize in these moments."[2]

Empathy on Empty

Compassion fatigue is a very real and specific kind of caregiver burnout. It is often referred to as secondary traumatic stress, and unlike general burnout (which develops gradually), compassion fatigue can occur suddenly after a particularly stressful or traumatic event.

According to an article from the National Library of Medicine,[3] symptoms of compassion fatigue include emotional exhaustion, a noticeable drop in empathy and a heavy feeling of helplessness. It's often called the "cost of caring" because it tends to happen when the emotional demands of caregiving begin to outweigh what you have to give. Beyond regular stress or fatigue, it's a deeper kind of emotional wear and tear that diminishes your capacity to care for others. Eventually, it can leave you feeling numb or disconnected — from your loved ones and even from yourself.

Research has shown that compassion fatigue typically unfolds in four stages:[4]

1) *Empathic ability.* You notice and emotionally connect with another's pain. This stage reflects your sensitivity and willingness to respond.

2) *Empathic response.* You take action — offering comfort, support and practical assistance. This is where caregiving truly begins.

3) *Compassion stress*. When giving continues unchecked, stress mounts as emotional reserves are depleted, even though caregiving continues.

4) *Compassion fatigue*. Extended exposure to a loved one's suffering leads to emotional and physical exhaustion, declining empathy, irritability, sleep disturbances and feelings of helplessness.

The good news is that caregivers can take proactive steps to prevent compassion fatigue by adopting effective coping strategies — beginning with prioritizing self-care. While there are universal practices worth exploring, such as taking breaks, eating a balanced diet, exercising and managing stress, caregivers especially benefit from strategies that help redefine the caregiving role.

Learning to Draw the Line

The first step to setting healthy boundaries in caregiving is acknowledging that selflessly caring for the needs of a loved one is not only counterproductive in the long run, it's simply not sustainable. Maria Rivas, MD, chief specialty and primary care medical officer at Pfizer, highlights that caregiver self-care isn't just a personal benefit: "Self-care is essential for the caregivers' benefit, of course, but also for the health of the people they care for and the health of our communities."[5]

Of course, recognizing the need for boundaries is only the beginning — putting them into practice is often far more complicated, especially when emotions run high. Caregivers frequently find themselves torn between the desire to give everything they can and the reality that doing so may ultimately harm both themselves and their loved ones. The emotional weight of caregiving — rooted in love, fear, guilt and a deep sense of responsibility — can make it especially difficult to say no or step back, even when necessary.

Burnout can creep in gradually, especially for caregivers who are constantly putting others' needs before their own.

"It can be harder to set limits and hold to them in relationships with loved ones who are ill," says Dr. Nieves. "All of our guilt, fear, affection, helplessness, hope and stress is exacerbated. We feel we owe our loved ones additional

patience, especially if they're ill. We fear we don't have that much time left with them. We don't know how we can help, but we want to try. We don't want to let them down, so we overcompensate."[2]

Setting boundaries and learning to say "no" as a caregiver can be challenging — but it's essential for long-term mental health. Here are practical strategies to help:

• Clarify your priorities: Identify what you can do and what you cannot sustain over time.

• Communicate clearly: Use "I" statements, such as "I need time to rest so I can help again tomorrow," instead of "You're asking too much."

• Be honest but compassionate: Say "no" while still expressing care. For example, "I'm not able to take you to the appointment tomorrow, but I can help arrange a ride."

• Set clear expectations: If you say you're unavailable at certain times, stick to it. This builds trust and reduces confusion.

• Avoid over-explaining: A simple and polite "I can't commit to that right now" is enough.

• Involve others: Reach out to other family members, friends or community resources. Use care calendars or apps like Lotsa Helping Hands to coordinate support.

• Protect your personal time: Block out time for rest, hobbies and social connection — these are non-negotiables for your mental health.

Keep in mind, saying "no" doesn't mean you care less — it means you're preserving your capacity to care more effectively.

Navigating Caregiver Guilt

Caregiver guilt is common, particularly when you begin to set healthy boundaries. You may feel like you're not doing enough or question your own abilities. It's important to recognize that feelings of guilt, anger, frustration, resentment and fear are normal. Rather than suppressing these emotions, experts recommend acknowledging them and paying attention to their underlying messages. For example, guilt often signals a genuine desire to treat others with compassion, while resentment may stem from feeling unappreciated or trapped.[6]

Caregiver guilt can also emerge from the belief that we should always be present and perfect. This guilt may be triggered by everyday realities — missed appointments, needing respite or considering professional care. It can manifest as chronic stress, anxiety and self-blame.[7]

To manage guilt, practice self-compassion by actively reframing how you talk to yourself, forgiving mistakes and reminding yourself that you're doing the best you can. Remember, caregiving is an intentional choice; even if social, familial or financial pressures exist, you are still freely choosing to provide care. Embracing that choice can lessen feelings of burden and increase your sense of empowerment.[8]

Guilt can be a barrier to self-care, but it's essential to remind yourself that caring for yourself is a crucial part of caring for your loved one. Ultimately, navigating caregiver guilt is a balancing act requiring compassion for your loved one and for yourself.

Understanding Caregiver Grief

One of the most intense emotions you may experience as a caregiver is grief. While the stages of traditional grief are widely recognized, the kind of grief that arises from caring for a loved one often shows up in more subtle and difficult-to-identify ways. You might find yourself mourning the shift in your relationship, longing for what it used to be before illness or dependency changed the dynamic. You may also grieve the loss of your personal freedom, especially if caregiving has consumed much of your time and energy. And perhaps most painfully, you might grieve a future that will no longer come to pass — particularly if your loved one's diagnosis has altered the life you once envisioned together.

Grief in all its forms can be debilitating. Here are some ways to cope:[7]

• Acknowledge the grief: When experiencing a loss of any kind, allow yourself to recognize and feel it. Journaling about the range of emotions can help you process them in a healthy manner.

• Allow yourself to cry: Caregivers often feel the need to maintain composure. A good cry can release pent-up pressure and lighten the emotional load.

• Talk to someone: Whether you seek professional help or lean on a trusted friend, having a judgment-free outlet is essential.

When to Ask for Help

One major barrier to maintaining your mental health as a caregiver is the stigma around asking for help. You may feel reluctant to admit you're struggling — but reaching out for support is a sign of strength, not weakness.

Consider seeking help when:

- You feel overwhelmed.
- Your own health — mental or physical — is suffering.
- You simply need a break from daily demands.

Types of support to consider:

- *Counseling and therapy.* Licensed professionals can help you process emotions, develop coping strategies and restore balance.
- *Support groups and peer networks.* Connecting with others in similar situations provides validation and shared wisdom.
- *Respite care and self-care strategies.* Short-term care services give caregivers time to rest and reset — strengthening your ability to provide ongoing care.

Don't Ignore the Risks

Caregiving is a journey that tests the limits of emotional resilience, compassion and endurance. While it comes with undeniable rewards, the risks to mental health should not be ignored. Recognizing the signs of burnout, setting healthy boundaries, addressing feelings of guilt or grief and knowing when to seek help are all essential steps toward sustainable caregiving.

You deserve support just as much as the loved one you care for. Taking care of your own well-being is not an indulgence — it's a necessity.

References

1. Avoiding Caregiver Burnout: Why You Need Help Before You Break Down. LTC News, updated May 17, 2025. Accessed at www.ltcnews.com/articles/avoiding-caregiver-burnout-need-help-before-break-down.
2. Rivera, Z. The Hidden Cost of Being a Multigenerational Caregiver. Parents, updated April 18, 2025. Accessed at www.parents.com/the-cost-of-supporting-family-8764577.
3. Cocker, F, and Joss, N. Compassion Fatigue Among Healthcare, Emergency and Community Service Workers: A Systematic Review. *International Journal of Environmental Research and Public Health*, 2016 Jun 22;13(6):618. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC4924075.
4. Burford, M. What Is Compassion Fatigue? 9 Coping Tips For Caregivers. Oak St. Health, Dec. 12, 2023. Accessed at www.oakstreethealth.com/what-is-compassion-fatigue-9-coping-tips-for-caregivers-1543936.
5. Pfizer. Caregiver Support: A Guide to Self-Care for Caregivers. Accessed at www.pfizer.com/news/articles/caregiver_support_a_guide_to_self_care_for_caregivers.
6. DeRouen, K. Maintaining Boundaries as a Caregiver: Go From Guilt To Glow. Supportiv. Accessed at www.supportiv.com/caregivers/maintaining-your-boundaries-as-a-caregiver.
7. California Caregiver Resource Center. Guilt and Grief as a Caregiver: Common Causes and 7 Tips for Prevention. Accessed at www.caregivercalifornia.org/2022/04/30/guilt-and-grief-as-a-caregiver-common-causes-and-7-tips-for-prevention.
8. Kang, M. 4 Strategies to Manage Caregiver Guilt. Psychology Today, Nov. 19, 2024. Accessed at www.psychologytoday.com/us/blog/rebuild-your-life/202411/4-strategies-to-manage-caregiver-guilt.

TRUDIE MITSCHANG is a contributing writer for *IG Living* magazine.

How and Why to Do a Digital Detox

A strategic, short break from your smartphone may be just what you need to refresh and enrich your life.

By Rachel Maier, MS

IN AN EPISODE of the television show *The Office,* the gang teams up to compete in a round of general trivia. Just before the game starts, one employee, Ryan Howard, is instructed to put his phone away because contestants are not allowed to use them. Instead of following the rule, he chooses to bow out of the game, saying "I can't not have my phone. I need to be with my phone" as he walks away.[1] Viewers are expected to laugh at the absurdity of the situation — choosing digital accessibility over real-life connectivity — but if we're honest, we understand Ryan's feelings on some level. Smartphones have become an essential appendage, and the thought of being without one doesn't sit well with us.

Smartphones are amazing tools, and it is increasingly hard to live without one in today's hyper-digital world. We rely on these devices for so many activities of daily living: Not only do they allow us to instantly chat with a friend or family member, but they also give us the power to pay bills, consult doctors, refill medications, take pictures, check the weather, keep tabs on the news, track exercise, get dinner delivered and search ad nauseam for all sorts of information (and that's just scratching the surface of what they can do!). Smartphones are a portal that gives us access to see, learn and do practically anything. They are a small invention that puts a lot of power in the palm of our hands.

As a result, our lives are increasingly plugged into the Internet. According to the Pew Research Center, 91 percent of American adults own a smartphone and 15 percent exclusively use their smartphone for Internet access.[2] Between smartphones and laptops, tablets and TVs, we have unprecedented access to interaction and information, but we're also addicted, anxious and depressed.[3]

For as convenient and helpful as smartphones can be, especially for people managing a chronic illness (hello health trackers, support groups and delivery services!), they can certainly impede our ability to connect with the real world and cause significant health problems in their own right. Stepping away from smartphones — even for just a small period of time — can help you reduce digital availability and consumption, reflect on how the technology affects your life (good or bad) and recalibrate not only what works for you, but what's good for you.

Drawbacks to Constant Smartphone Use

Despite the many advantages of smartphone use, the devices come with drawbacks, too, including:[3,4]

- Anxiety
- Decreased productivity
- Depression
- Disrupted sleep
- Distraction
- Eye fatigue
- Fear of missing out (FOMO)
- Headaches
- Musculoskeletal pain
- Phone addiction
- Reduced attention
- Relationship stress

So, What Is a Digital Detox?

A digital detox is exactly what it sounds like. A "detox" involves setting aside time to prioritize removing things from your life that are harmful to your health; a *digital* detox removes as much digital technology from your life as possible for the purpose of improving your health. You don't have to stay off of screens completely or forever; in fact, a digital detox is usually a set amount of time during which you purposefully take a break from online life, reduce time on your smartphone in particular and/or cut down on using digital technology in general. It's flexible and fully customizable to your life and your goals.

A digital detox typically focuses on disconnecting from your smartphone screen to help you break bad habits and dependency on its use. It also aims to adjust your habits and routines to meet your personal needs and goals. Doing so can help improve mental health and well-being, improve sleep, increase focus and productivity, help you connect with the present moment and rediscover things you enjoy in real life.

Why a Digital Detox Might Be Right for You

Despite the benefits, if the thought of disconnecting from your smartphone — even for just a little while — makes you panic, you are not alone. In a 2022 Gallup poll, 44 percent of American adults with a smartphone reported they would be anxious if they lost their smartphone, and nearly half agreed with the statement, "I can't imagine my life without my smartphone."[5] Even though much of what we do on our smartphone involves everyday activities of life (shopping, paying bills, responding to work emails), the constant connection can become harmful when we over-rely on the device, and simple notifications condition us to stay attached for fear of missing something important. FOMO drives us to keep checking what's happening in the virtual world. As a result, smartphones can interfere with real life by taking our attention away from what is right in front of us. Further, we rely on virtual communication and forget how to connect with others in real life. And, we are apt to compare ourselves with what we see online, mistakenly believing our life isn't good enough when compared to "everyone else."

A digital detox typically focuses on disconnecting from your smartphone screen to help you break bad habits and dependency on its use.

Any of this sound familiar?

According to Brown University Health, these common signs may indicate a digital detox is right for you:[6]

1) You feel compelled to check your phone all the time; you cannot concentrate unless you check it often.

2) You feel you are missing out on something important if you don't check your personal notifications or social media sites.

3) You feel agitated and upset after spending time on social media.

4) You feel stressed or anxious if you cannot find your phone.

5) Your devices disrupt your sleep.

6) You compare yourself and your life to what you see online.

7) You prefer to interact with other people virtually rather than in person.

8) Your device is causing work-life balance issues, with

work creeping into your personal time because your device is always on.

If you can relate to any of this, a digital detox could help you get out of a harmful cycle and recalibrate your online life.

7 Strategies for a Simple, Effective Digital Detox

Here are seven steps to help you create a personalized digital detox strategy:

1) *Evaluate your habits*. Start by considering these questions: How much time are you spending on your smartphone or other digital device? Do you reach for it every time you hear a notification and feel pressure to respond right away? Do you spend time on your smartphone before you fall asleep, and if so, how are you sleeping at night? Do the websites or apps you use make you feel good or accomplished, or do they make you feel sad, stressed or like you don't measure up? Sit with these questions and reflect on what is true for you.

2) *Define a goal and make a plan*. After you identify your habits and how they make you feel, decide what you would like to accomplish by the end of your detox period. Then, once you have your goal in mind, set aside a time frame (one week, two weeks, 30 days, one calendar month, etc.) and write your goal down. Do you want to improve sleep, decrease stress, make better use of your time, reconnect with people in your life or create an overall new rhythm for your smartphone use? Whatever goal(s) you want to accomplish, write it all down so you remember it when things get hard.

3) *Set yourself up for success.* Your smartphone is configured to keep you constantly alert and connected. To take a break from all that connectivity, you'll need to adjust your settings and surroundings to support your goals. Here are a few ideas to help you help yourself:

- Silence notifications. Turn your phone on silent. Turn off social media notifications or other notifications such as shipping notices, news updates or even text messages.

- Edit your apps. Remove time-wasters and distractions — nonessential apps that you do not need. For example, you might delete social media apps but keep your banking app, or delete your gaming apps but keep your healthcare portal.

- Adjust color settings. Make your phone appear in grayscale. (On an iPhone, go to Settings > Accessibility > Display and Text Size > Color filters. Then, toggle "color filters" to "on," and select grayscale.) Changing the color setting to grayscale will make your phone less appealing and thus less tempting to use for long periods of time.

- Designate spaces in your home and office where phones/screens are not allowed. For example, make your bedroom a screen-free zone, create a new rule of "no screens at the table" or keep your phone in a drawer during work hours.

4) *Communicate digital boundaries*. Inform others of your intentions, and adjust your smartphone's settings to help you. Tell the people you communicate with most often about your plan so they know what to expect (i.e., that they can still reach you via text, but your response will not be immediate; to call you if they need an immediate answer; that you won't be responding to social media messages for the next several weeks; etc.). You can even post an update on social media informing your family, friends and followers that you are taking a break from social media during your digital detox, so you will not see updates or messages via those services until your break is done.

5) *Schedule your screen time*. If you aren't giving up your phone entirely, schedule times you will allow yourself to use it, and define what features you will allow yourself to use. For example, pick four times per day to check your messages (i.e., before work, at lunchtime, after work and after dinner/before bed); plan to do your virtual errands (medication refills, depositing a check, etc.) over your lunch break; earmark your exercise time for listening to music, podcasts or audiobooks.

6) *Socialize in real-time*. Spend time with people offline. Play a game with your family instead of playing a game on a screen. Have a real-time conversation with a friend instead of commenting on their social media post. Invest your time in the people right in front of you, or use your smartphone to connect via a phone conversation or video chat.

7) *Consider going old-school*. Even though your smartphone is a jack-of-all-trades in the digital world, traditional methods for performing activities of daily living still exist. You can still go to the grocery store yourself; you can even get major newspapers delivered to your house! If you typically scroll through news apps to stay on top of local and world events, consider switching to a physical newspaper. If you typically read magazines online, think about signing up for a physical copy to be sent to your home. If you keep up with friends via email,

consider writing a letter and sending it through the mail. If you usually make your grocery list with your phone, get out a pad of paper and a pen and then go to the store and shop instead of ordering ahead online. Head to the library and check out a physical book. Pick up takeout from your favorite restaurant yourself. Even better, cook your meals at home. Better yet, invite a loved one to cook with you. And depending on how dedicated you are to your detox, you could switch to a cellphone without Internet access. (Yes, they still exist!)

After you finish your digital detox, do a quick self-assessment. How do you feel mentally, physically, emotionally? What worked for you? What didn't? What changes weren't helpful, and which ones will you keep?

Unplug to Recharge

Smartphones seem to be here to stay. Using them makes onerous chores more tolerable, and helps us keep pace with the fast-moving rhythm of life. However, too much of a good thing can be harmful to your health, so taking the time to unplug for a set amount of time may be just what you need to recharge physically and mentally. Understand your relationship with your smartphone, set realistic goals for change, establish boundaries and then follow through on your plan. It may be difficult at first, but once you find a balance that works for you, you will have a healthier relationship with your smartphone.

References

1. IMDb. The Office Trivia: B. J. Novak: Ryan Howard Quotes. Accessed at www.imdb.com/title/tt2139249/characters/nm1145983.
2. Pew Research Center. Mobile Fact Sheet, Nov. 13, 2024. Accessed at www.pewresearch.org/internet/fact-sheet/mobile.
3. Care New England. Is Your Phone Affecting Your Mental Health? Butler Hospital, Dec. 19, 2023. Accessed at www.butler.org/blog/phone-affecting-your-mental-health.
4. Ask the Scientists. Smartphones and Health: How Your Cell Phone Affects You. Accessed at askthescientists.com/cell-phones.
5. Saad, L. Americans Have Close But Wary Bond with Their Smartphone. Gallup, June 20, 2022. Accessed at news.gallup.com/poll/393785/americans-close-wary-bond-smartphone.aspx.
6. Brown University Health Blog Team. What Is a Digital Detox and Do You Need One? Brown University Health, June 8, 2023. Accessed at www.brownhealth.org/be-well/what-digital-detox-and-do-you-need-one.

RACHEL MAIER, MS, is the associate editor of *IG Living* magazine.

Diagnosing and Treating Anxiety Disorders

Once not considered legitimate conditions, anxiety disorders are now recognized by medical and mental health professionals and have specific diagnostic criteria and treatments.

By Jim Trageser

BEFORE WORLD WAR II, medical and mental practitioners by and large did not recognize anxiety disorders as actual conditions. Much as patients with chronic fatigue syndrome (CFS) were, until quite recently, likely to be told it was "all in their head," so were those dealing with an anxiety disorder.

But similar to the way that having millions of people developing post-COVID or long COVID caused researchers and physicians to accept that viral infections can cause long-term side effects and conditions such as CFS, having tens of thousands, perhaps hundreds of thousands, American combat veterans come home after the war suffering from what we now call post-traumatic stress disorder, or PTSD, led medical and psychological researchers to reevaluate the existing diagnoses and treatments of mental health disorders.

Seven years after the end of that war came the publication of what quickly became and still remains the primary reference for clinical mental health therapists: *Diagnostic and Statistical Manual for Mental Disorders* (or DSM). But it was only in 1968, in the second edition of the DSM, that anxiety disorders were included. Before that, there was only an ill-defined "anxiety neurosis" as a catch-all diagnosis.[1] Treatment options were similarly limited.

With about 19 percent of American adults suffering from an anxiety disorder at any time, and with about 30 percent of us having an anxiety disorder at some point in our lives,[2] finding ways to offer effective therapy and treatment is not only taken seriously by the medical and mental health professions today, it's an area of emphasis. Perhaps unsurprisingly, people who are dealing with a chronic medical condition (particularly rare diseases) are more likely to develop an anxiety disorder than those without one.[3]

As a mark of how far attitudes and science have progressed, the current edition of DSM — DSM-5 (published in 2013) — includes seven categories of anxiety disorders.

What Causes Anxiety?

Anxiety is the normal, natural reaction of most mammals — including human beings — to threats or perceived threats. This is sometimes known as the "fight or flight" response. The brain directs the body to release the hormone adrenaline, increasing our heart rate and blood rate. We begin to breathe faster, and the airways in our lungs expand, increasing our oxygen capacity. Blood flow to the brain increases, making us more alert, while stored sugars and fats pour into the bloodstream, providing a burst of energy.[4] This allows us to run away from the danger more rapidly than normal (think of a startled rabbit or deer) or turn to face the danger with extra energy and focus (think of a mother bear protecting her cubs). This is a benefit nature gave our ancestors to improve their — our — survival odds.

What Is an Anxiety Disorder?

In the chapter on anxiety disorders in the 2018 reference *Primary Care Mental Health*, the authors write:

"Anxiety is considered to be a universal adaptive response to a threat; this response can, however, become maladaptive. The distinction between abnormal and normal anxiety occurs when the anxiety is out of proportion to the level of threat or when there are symptoms that are unacceptable regardless of the level of threat, including recurring panic attacks, severe physical symptoms and abnormal beliefs such as fear of sudden death."[5]

In other words, anxiety is a normal response to stress in our lives. However, when our brain repeatedly activates the stress response without actual cause, anxiety can become chronic. In these people, every episode of anxiety is overwhelming and

disproportionate to the perceived threat — with panic attacks that make it difficult or impossible to function normally.

Researchers also believe long-term chronic anxiety can lead to high blood pressure, heart disease, poor sleep patterns and digestive problems. There is also ongoing research into the relationship between anxiety, chronic inflammation and the immune system.[6]

Still, it is important to remember that it is only when anxiety begins to cause problems in our behavior or physical health that it becomes a disorder.

Symptoms of an anxiety disorder may be the same as those of normal, acute anxiety, but last for weeks or months.

The categories of anxiety disorders described in DSM-5 are:

- Generalized anxiety disorder (GAD)
- Panic disorder
- Social anxiety disorder
- Separation anxiety disorder
- Specific phobias
- Agoraphobia
- Selective mutism

GAD is a condition of chronic anxiety that cannot be explained by one of the other classifications, nor medical condition or drug reaction.

Panic disorder has overlapping symptoms with GAD, along with physical manifestations such as a racing heart, excessive sweating and/or chest pain.

Social anxiety disorder also overlaps with GAD, but generally includes an inability to make or difficulty making eye contact, a stiff posture and strong feelings of self-consciousness.

Separation anxiety disorder is marked by an overwhelming distress during, or even at the thought of, separation from a loved one.

Agoraphobia is often misunderstood as a fear of open spaces; the diagnostic standard is more closely tied to an irrational fear of being trapped with no available escape.

Selective mutism mostly affects children, and manifests with an inability to speak in new or public settings; however, while at home around familiar family members, the patient's speech pattern is developmentally consistent with their age.

Specific phobias manifest through an irrational, highly

Signs of an Anxiety Disorder

Anxiety Disorder Resources

- **Anxiety & Depression Association of America (ADAA)** (adaa.org). ADAA raises awareness about the causes of and best treatments for anxiety, depression and related disorders by disseminating cutting-edge science, promoting evidence-based clinical practice and educating professionals and the public.
- **Child Anxiety Network** (childanxiety.net). This network was created to provide thorough, user-friendly information about child anxiety.
- **National Institute of Mental Health (NIMH)** (www.nimh.nih.gov/health/topics/anxiety-disorders#part_145335). NIMH is the lead federal agency for research on mental disorders. It is one of the 27 institutes and centers that make up the National Institutes of Health, the largest biomedical research agency in the world.
- **Social Anxiety Association (SAA)** (socialphobia.org). SAA, a non-profit organization, was officially organized in 1997 to meet the growing needs of people throughout the world who have social phobia/social anxiety.

disproportionate fear of a specific object or situation so severe that it impacts the patient's life. There are five classifications of specific phobias:

- Natural/environmental: Common phobias include those of thunder and lightning, or of water.
- Injury: These include a fear of injections and of dentists.
- Animal: Dogs, spiders and snakes are common animal phobias.
- Situational: Claustrophobia (a fear of enclosed spaces) and ablutophobia (a fear of washing) are among the more frequently diagnosed.
- Other: This includes any phobia not covered by one of the above categories.

There is a noticeable difference between the sexes, with women significantly more likely than men to develop an anxiety disorder. In addition, anxiety disorders are more prevalent in early adulthood through the mid-40s, declining after that.[2]

Researchers do not know why some people's anxiety becomes maladaptive and causes them problems, but they suspect a variety of factors or "triggers" — from underlying medical conditions to childhood emotional trauma. There is also evidence there may be a genetic component, since anxiety disorders seem to run in families. Finally, alcohol and drug abuse also increases an individual's risk of developing an anxiety disorder.

When to See a Doctor

While anxiety is a normal, natural response to threats or stress (before a job interview, a wedding, a first date, a doctor appointment, etc.), one should make an appointment to see a doctor if the anxiety seems excessive — especially if it is causing missed work or school, avoiding engaging in normal activities that were formerly enjoyed or is otherwise interfering in daily life.[7]

Some common symptoms of anxiety include those we experience during every "fight or flight" scare (such as from being asked to speak in front of a room full of people, something most of us find intimidating):[9]

- An elevated heart rate
- Sweating
- Feeling nervous
- Trembling hands

But those whose anxiety is becoming chronic may also experience the following symptoms:[9]

- Difficulty sleeping
- Digestive problems
- Experiencing a sense of dread or doom
- Finding it difficult to stop worrying
- Avoiding people, places or situations that trigger anxiety

How Is an Anxiety Disorder Diagnosed?

When a patient meets with a doctor, or if he or she is referred to a therapist, the physician or counselor will either ask a series of questions or give the patient a questionnaire to fill out. (It might even be emailed ahead of the appointment.)

One of the standard forms used to help diagnose patients, the "Generalized Anxiety Disorder-7" or "GAD-7," asks patients to rate their responses on a scale from 0 (no symptoms) to 3 (daily symptoms) for questions such as:

- Are you feeling nervous, anxious or on edge?
- Are you easily annoyed or irritable?
- Do you struggle to relax?

It is important for individuals to answer the questions honestly; the physician or therapist isn't there to judge, but to help. Depending on how patients score their anxiety symptoms, the physician or therapist will likely ask some follow-up questions. They will then compare the reported symptoms to the descriptions in the DSM-5.

The final step will be to ensure the anxiety is not caused by an underlying medical condition such as heart disease, diabetes, chronic obstructive pulmonary disease, asthma or certain rare types of cancer. In these cases, treatment will

focus on the underlying cause. Drug abuse or withdrawal and certain medications can also cause symptoms similar to those of an anxiety disorder.

If patients' symptoms are severe and there is no other underlying cause to explain them, a diagnosis of anxiety disorder will be made. (Even if patients do not have an anxiety disorder, but do have mild anxiety, there are treatments available to help alleviate that as well.)

How Are Anxiety Disorders Treated?

Anxiety disorders are treated with psychotherapy and/or medication. The specific treatment plan will depend on the type of anxiety disorder the patient is diagnosed with, how severe the symptoms are and any other medical conditions the patient may have.

For those patients whose anxiety disorder is causing them to avoid certain situations, a form of psychotherapy known as cognitive behavioral therapy, or CBT, can be used to help the patient form effective coping techniques. This will generally take the form of confronting stressful situations or objects in small steps in the safety of the therapist's office.

Some of the drugs that may be prescribed include:

Imipramine (Tofranil) is an antidepressant also effective in treating panic disorder and other anxiety disorders.[8]

Benzodiazepines are a class of sedatives that may be used for short periods to help calm a patient's anxiety. Some that are effective at treating anxiety disorders include diazepam (Valium), alprazolam (Xanax), lorazepam (Ativan), clonazepam (Klonopin) and chlordiazepoxide (Librium). However, they can be habit-forming for some patients, and they can also cause daytime drowsiness.[9]

Another drug that can be used to treat anxiety disorders is buspirone (Buspar). It can take several weeks before buspirone begins to ease symptoms. Side effects include dizziness, headaches and strange dreams.[9]

Some antidepressants can also alleviate symptoms of an anxiety disorder — although, as with buspirone, it can be several weeks before improvement is felt by the patient. There are three classes of antidepressants that are also used to treat anxiety disorders:[9]

• Selective serotonin reuptake inhibitors (SSRIs): These include escitalopram (Lexapro), fluoxetine (Prozac), paroxetine (Paxil) and sertraline (Zoloft).

• Tricyclics: These include clomipramine (Anafranil) and imipramine (Tofranil); tricyclics and SSRIs both usually begin with a low dosage that is gradually increased.

• Monoamine oxidase inhibitors (MAOIs): This classification of drug is typically used to treat panic disorders and social phobia; they include isocarboxazid (Marplan), phenelzine (Nardil), selegiline (Emsam) and tranylcypromine (Parnate).

A final class of drug sometimes used to treat anxiety disorders are beta blockers, which are typically prescribed for heart conditions. The most common beta blocker prescribed for anxiety disorder is propranolol (Inderal), and it will often be used to help ease a patient's symptoms during a particularly stressful event such as public speaking.

These drugs will almost always be used in conjunction with counseling, particularly at the beginning of treatment. All of them have various side effects, and patients will be monitored closely by a physician or therapist at the beginning of treatment.

And while not technically part of the treatment program, a therapist or doctor may suggest the patient explore a local or online support group for people with an anxiety disorder. Sometimes simply having the support of others in the same situation can provide additional strength and comfort.

Preventing Anxiety Disorders

Since researchers and doctors don't know exactly what triggers anxiety disorders, there is no way to prevent them. The Mayo Clinic points out, though, that seeking treatment as soon as symptoms manifest can help prevent the disorder from worsening.[7] In addition, maintaining an active social life and avoiding drug and alcohol use will also lower the chances of developing an anxiety disorder.

References

1. Crocq, MA. The History of Generalized Anxiety Disorder as a Diagnostic Category. *Dialogues in Clinical Neuroscience*, June 2017. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC5573555.
2. National Institute of Mental Health. Any Anxiety Disorder. Accessed at www.nimh.nih.gov/health/statistics/any-anxiety-disorder.
3. Uhlenbush, N, Löwe, B, Härter, M, et al. Depression and Anxiety in Patients with Different Rare Chronic Diseases: A Cross-Sectional Study. *PLoS ONE*, No. 14, Feb. 20, 2019. Accessed at journals.plos.org/plosone/article?id=10.1371/journal.pone.0211343.
4. Harvard Health. Understanding the Stress Response, Aug. 3, 2024. Accessed at www.health.harvard.edu/staying-healthy/understanding-the-stress-response.
5. Arroll, B, and Kendrick, T. Definition of Anxiety. *Primary Care Mental Health*, (2018) pp 125-37.
6. Alotiby, A. Immunology of Stress: A Review Article. *Journal of Clinical Medicine*, Oct. 25, 2024. Accessed at pmc.ncbi.nlm.nih.gov/articles/PMC11546738.
7. Mayo Clinic. Anxiety Disorders. Accessed at www.mayoclinic.org/diseases-conditions/anxiety/symptoms-causes/syc-20350961.
8. Fayez, R, and Gupta, V. Imipramine. *StatPearls*, May 22, 2023. Accessed at www.ncbi.nlm.nih.gov/books/NBK557656.
9. Healthline. Which Drugs Treat Anxiety Disorder? Accessed at www.healthline.com/health/anxiety-drugs.

JIM TRAGESER is a freelance journalist in the San Diego, Calif. area.

Could it be your immune system?

Immune Deficiency Foundation

Take the self-assessment to find out if your symptoms could point to a primary immunodeficiency (PI). It's an informative way to gather insights that you can discuss with your healthcare provider.

idf.primaryimmune.org/immunetest

Immune Deficiency Foundation FILMS

compromised.

[life without immunity]

Follow the heart-wrenching yet hopeful stories of those living with a primary immunodeficiency.

A must-watch documentary.

Learn more: idf.primaryimmune.org/watchfilm

ADVOCACY. EDUCATION. RESEARCH.
A COMMUNITY EMPOWERED

Whether you've been recently diagnosed, have been living with a primary immunodeficiency (PI) for years, or just think you might have a PI, the Immune Deficiency Foundation is here to help.

While PI has no cure, there are lifesaving treatments available that can improve your quality of life. Our programs are meant to connect, engage, and empower families to live longer, stronger, healthier lives.

SCAN ME

Immune Deficiency Foundation

primaryimmune.org | idf@primaryimmune.org

Transitioning Your IG Coverage to Medicare

Medicare coverage options can be more complicated than IG therapy, but these guidelines can help to ensure a smooth transition.

By Leslie Vaughan, RPh, CSP, IgCP, and Michelle Greer, RN, IgCN

IMMUNE GLOBULIN (IG) is a complex therapy, both clinically and financially, that is used to treat rare and difficult-to-diagnose diseases. For some, IG is a lifetime therapy. And, while at one time this therapy was typically approved and reimbursed without question, today extensive medical policies are in place that require a diagnosis to be proved and the medical need for IG justified.

Compared with all other insurance plans, Medicare probably varies most in its coverage policies for IG therapy. Therefore, patients who continue to receive IG therapy when they turn 65 or otherwise become eligible for Medicare need to know how to successfully transition to Medicare. In fact, changes in site of care and route of administration may be necessary to ensure therapy continues without disruption and financial strain.

Applying for Medicare

To be eligible for Medicare coverage, patients must be age 65 or older and eligible for retirement benefits under Social Security, or a federal, state or local government employee. To be eligible for Social Security, individuals must have 40-plus quarters of Social Security-covered employment; receive benefits under a spouse's work record and be currently married; or have received benefits under a former spouse to whom they were married for at least 10 years.

Individuals also may be eligible for Medicare if they are receiving disability benefits under Social Security Disability Insurance; have received railroad retirement benefits for 24 or more months; have end-stage renal disease; or have amyotrophic lateral sclerosis, also known as Lou Gehrig's disease.

Some individuals will be automatically enrolled in Medicare when they turn 65, whereas others will need to apply. Those who are already receiving Social Security benefits and have enough work quarters will automatically be enrolled for Medicare Parts A and B when they turn 65 or on the 25th month of disability. All others will need to apply for Medicare. An individual who needs to apply for Medicare has a seven-month initial enrollment period to sign up for Part A and/or Part B. This initial enrollment period begins three months prior to the individual's 65th birthday month, includes the birthday month and concludes three months after the birthday month. Starting the application process as early as possible can minimize any problems getting enrolled.

One of the most important things to consider when turning 65 is if insurance through an employer will continue. If patients or their spouses are still working and the employer has 20 or more employees, Medicare becomes the secondary

insurance until they retire. If patients or their spouses plan to retire, and their employer's insurance will continue, Medicare will become the primary insurance and will cover all approved charges at 80 percent, with the employer's insurance generally covering the remaining 20 percent of approved charges. If the employer's insurance will terminate, patients may consider obtaining a Medicare supplemental plan, since 20 percent of the cost of monthly IG therapy can be financially taxing.

For more detailed information, see the Medicare website section "How Medicare Works with Other Coverage" (found in the Health & Drug Plans section of the website). These resources, as well as more comprehensive information on basic Medicare coverage, including eligibility, coverage criteria and plan options, can be found on the Medicare website at www.Medicare.gov.

Choosing Medicare Benefits

The original Medicare plans include Medicare Parts A and B. There also is Medicare Part D (the Medicare prescription drug plan) for which patients can sign up. An alternative option to Parts A and B is Medicare Part C (the Medicare Advantage Plan), which is similar to an HMO and usually includes prescription drug coverage.

Coverage for IG varies based on patients' diagnosis, where they currently receive therapy and whether they receive therapy via the intravenous IG (IVIG) or subcutaneous IG (SCIG) route.

Drug coverage for immune deficiency diagnoses. IG therapy for some immune deficiency diagnoses is 80 percent covered under Medicare Part B. This is the case whether patients receive IVIG or SCIG. However, any coverage changes should be confirmed for the site of therapy, including the hospital, physician office or home. There is broader coverage in the hospital and physician office than in the home. In the homecare setting, coverage is limited to 24 specific diagnosis codes (Table).

Patients with an immune deficiency that is not identified by one of these 24 diagnosis codes may be covered under the Part D benefit, which is explained later.

Unfortunately, IG is not reimbursed very well under Medicare Part B. Prior to the passage of the 21st Century Cures Act in December 2016, reimbursement for SCIG received at home was adequate to cover the cost of the drug. Now, for most providers, Medicare reimbursement is at or below their cost to purchase IG. CMS's HIT (home infusion therapy) publication noted the number of home infusion visits has been declining when comparing 2022 to 2024. It also noted while there are 73 HIT supplier organizations, 55.4 percent of HIT services were provided by seven of those 73 providers.[1]

Medicare publishes a new fee schedule every quarter that may impact the brand of IG patients receive. Based on these quarterly reimbursement rates for IG, providers may ask patients to change brands and/or routes of administration if reimbursement for their current product dips below the cost to acquire it.

Coverage of SCIG in the home is based on the use of an external infusion pump (Local Coverage Decision L33794). There are eight SCIG products: Cutaquig (Octapharma/Pfizer), Cuvitru (Takeda), Gammagard Liquid (Takeda), Gammaked (Kedrion Biopharma), Gamunex-C (Grifols), Hizentra (CSL Behring), HYQVIA (Takeda) and Xembify (Grifols). HYQVIA differs from the others because it is a combination product using IG and hyaluronidase. The hyaluronidase component makes it possible for patients to infuse monthly rather than the more frequent dosing that may be required when using traditional SCIG products. Medicare Part B has partial coverage for HYQVIA in the home. The manufacturer of HYQVIA, Takeda, recommends a dose ramp-up, which means patients start with a partial dose and increase the dose with each subsequent treatment until they reach a maintenance dose. Currently, coverage under Medicare Part B will not pay for the ramp-up phase in the home. Payment for the ramp-up phase is available only in the hospital outpatient and physician office settings. Once the patient is stabilized with the maintenance dose, Part B will cover ongoing doses in the home setting.

Some individuals will be automatically enrolled in Medicare when they turn 65, whereas others will need to apply.

Important Safety Information

WARNING: Thrombosis (blood clots) can occur with immune globulin products, including Hizentra. Risk factors can include: advanced age, prolonged immobilization, a history of blood clotting or hyperviscosity (blood thickness), use of estrogens, installed vascular catheters, and cardiovascular risk factors.

If you are at high risk of blood clots, your doctor will prescribe Hizentra at the minimum dose and infusion rate practicable and will monitor for signs of clotting events and hyperviscosity. Always drink sufficient fluids before infusing Hizentra.

See your doctor for a full explanation, and the full prescribing information for complete boxed warning.

Hizentra®, Immune Globulin Subcutaneous (Human), 20% Liquid, is a prescription medicine used to treat:

- Primary immune deficiency (PI) in patients 2 years and older
- Chronic inflammatory demyelinating polyneuropathy (CIDP) in adults

Treatment with Hizentra might not be possible if your doctor determines you have hyperprolinemia (too much proline in the blood), or are IgA-deficient with antibodies to IgA and a history of hypersensitivity. Tell your doctor if you have previously had a severe allergic reaction (including anaphylaxis) to the administration of human immune globulin. Tell your doctor right away or go to the emergency room if you have hives, trouble breathing, wheezing, dizziness, or fainting. These could be signs of a bad allergic reaction.

Inform your doctor of any medications you are taking, as well as any medical conditions you may have had, especially if you have a history of diseases related to the heart or blood vessels, or have been immobile for some time. Inform your physician if you are pregnant or nursing, or plan to become pregnant.

Hizentra®
Immune Globulin Subcutaneous (Human) 20% Liquid

Get the protection of Ig without the IV

- **NO SERIOUS BACTERIAL INFECTIONS REQUIRING HOSPITALIZATION***
- **CONTINUOUS PROTECTION**
- **NO SERIOUS SIDE EFFECTS†**

IVIg may leave you feeling sick before and after infusions. But Hizentra gives you continuous Ig protection plus the ability to self-infuse where and when you choose after speaking to your doctor. With no serious bacterial infections,* you get more freedom and confidence in everyday moments. It's time to ask your doctor if Hizentra is right for you.

LIVE IN ***STRENGTH***
WITH HIZENTRA

Scan for more reasons to switch

*In a 12-month study, Hizentra delivered low rates of infection with no serious bacterial infections that could potentially require hospitalization, like bacterial pneumonia, bacteremia/septicemia, osteomyelitis/septic arthritis, bacterial meningitis, and visceral abscess.

†In the 12-month study of people taking Hizentra to treat PI, there were no serious side effects related to treatment. Two subjects withdrew from the 12-month study due to nonserious side effects.

Ig, immunoglobulin; IVIg, intravenous immunoglobulin.

Infuse Hizentra under your skin *only*; do not inject into a blood vessel. Self-administer Hizentra only after having been taught to do so by your doctor or other healthcare professional, and having received dosing instructions for treating your condition.

Immediately report to your physician any of the following symptoms, which could be signs of serious adverse reactions to Hizentra:

- Reduced urination, sudden weight gain, or swelling in your legs (possible signs of a kidney problem).
- Pain and/or swelling or discoloration of an arm or leg, unexplained shortness of breath, chest pain or discomfort that worsens on deep breathing, unexplained rapid pulse, or numbness/weakness on one side of the body (possible signs of a blood clot).
- Bad headache with nausea; vomiting; stiff neck; fever; and sensitivity to light (possible signs of meningitis).
- Brown or red urine; rapid heart rate; yellowing of the skin or eyes; chest pains or breathing trouble; fever over 100°F (possible symptoms of other conditions that require prompt treatment).

Hizentra is made from human blood. The risk of transmission of infectious agents, including viruses and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent and its variant (vCJD), cannot be completely eliminated.

The most common side effects in the clinical trials for Hizentra include redness, swelling, itching, and/or bruising at the infusion site; headache; chest, joint or back pain; diarrhea; tiredness; cough; rash; itching; fever, nausea, and vomiting. These are not the only side effects possible. Tell your doctor about any side effect that bothers you or does not go away.

CSL Behring

Hizentra®
Immune Globulin Subcutaneous (Human) 20% Liquid

Important Safety Information (continued)

Before receiving any vaccine, tell immunizing physician if you have had recent therapy with Hizentra, as effectiveness of the vaccine could be compromised.

Please see accompanying full prescribing information for Hizentra, including boxed warning and the patient product information.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

You can also report side effects to CSL Behring's Pharmacovigilance Department at 1-866-915-6958.

HIZENTRA®, Immune Globulin Subcutaneous (Human), 20% Liquid Initial US Approval: 2010

BRIEF SUMMARY OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use HIZENTRA safely and effectively. Please see full prescribing information for HIZENTRA, which has a section with information directed specifically to patients.

What is HIZENTRA?

HIZENTRA is a prescription medicine used to treat primary immune deficiency (PI) and chronic inflammatory demyelinating polyneuropathy (CIDP). Infuse HIZENTRA only after you have been trained by your doctor or healthcare professional. HIZENTRA is to be infused under your skin only. DO NOT inject HIZENTRA into a blood vessel (vein or artery).

Who should NOT take HIZENTRA?

Do not take HIZENTRA if you have too much proline in your blood (called "hyperprolinemia") or if you have had reactions to polysorbate 80. Tell your doctor if you have had a serious reaction to other immune globulin medicines or have been told that you have a deficiency of the immunoglobulin called IgA.

Tell your doctor if you have a history of heart or blood vessel disease or blood clots, have thick blood, or have been immobile for some time. These things may increase your risk of having a blood clot after using HIZENTRA. Also tell your doctor what drugs you are using, as some drugs, such as those that contain the hormone estrogen (for example, birth control pills), may increase your risk of developing a blood clot.

What are possible side effects of HIZENTRA?

The most common side effects with HIZENTRA are:

- Redness, swelling, itching, and/or bruising at the infusion site
- Headache/migraine
- Nausea and/or vomiting
- Pain (including pain in the chest, back, joints, arms, legs)
- Fatigue
- Diarrhea
- Stomach ache/bloating
- Cough, cold or flu symptoms
- Rash (including hives)
- Itching
- Fever and/or chills
- Shortness of breath
- Dizziness
- Fall
- Runny or stuffy nose

Tell your doctor right away or go to the emergency room if you have hives, trouble breathing, wheezing, dizziness, or fainting. These could be signs of a bad allergic reaction.

Tell your doctor right away if you have any of the following symptoms. They could be signs of a serious problem.

- Reduced urination, sudden weight gain, or swelling in your legs. These could be signs of a kidney problem.
- Pain and/or swelling of an arm or leg with warmth over the affected area, discoloration of an arm or leg, unexplained shortness of breath, chest pain or discomfort that worsens on deep breathing, unexplained rapid pulse, or numbness or weakness on one side of the body. These could be signs of a blood clot.
- Bad headache with nausea, vomiting, stiff neck, fever, and sensitivity to light. These could be signs of a brain swelling called meningitis.
- Brown or red urine, fast heart rate, yellow skin or eyes. These could be signs of a blood problem.
- Chest pains or trouble breathing.
- Fever over 100°F. This could be a sign of an infection.

Tell your doctor about any side effects that concern you. You can ask your doctor to give you more information that is available to healthcare professionals.

Please see full prescribing information, including full boxed warning and FDA-approved patient product information. For more information, visit Hizentra.com.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit *www.fda.gov/medwatch*, or call 1-800-FDA-1088.

You can also report side effects to CSL Behring's Pharmacovigilance Department at 1-866-915-6958.

Based on April 2023 version.

CSL Behring

Hizentra is manufactured by CSL Behring AG and distributed by CSL Behring LLC.
Hizentra® is a registered trademark of CSL Behring AG.

Table. Medicare-Covered Diagnostic Codes for IVIG and SCIG Administered at Home

ICD-10	Description
D80.0	Hereditary hypogammaglobulinemia
D80.2	Selective deficiency of immunoglobulin A (IgA)
D80.3	Selective deficiency of immunoglobulin G (IgG) subclasses
D80.4	Selective deficiency of immunoglobulin M (IgM)
D80.5	Immunodeficiency with increased immunoglobulin M (IgM)
D80.6	Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia
D80.7	Transient hypogammaglobulinemia of infancy
D81.0	Severe combined immunodeficiency (SCID) with reticular dysgenesis
D81.1	Severe combined immunodeficiency (SCID) with low T- and B-cell numbers
D81.2	Severe combined immunodeficiency (SCID) with low or normal B-cell numbers
D81.5	Purine nucleoside phosphorylase (PNP) deficiency
D81.6	Major histocompatibility complex class I deficiency
D81.7	Major histocompatibility complex class II deficiency
D81.89	Other combined immunodeficiencies
D81.9	Combined immunodeficiency, unspecified
D82.0	Wiskott-Aldrich syndrome
D82.1	DiGeorge syndrome
D82.4	Hyperimmunoglobulin E (IgE) syndrome
D83.0	Common variable immunodeficiency with predominant abnormalities of B-cell numbers and function
D83.1	Common variable immunodeficiency with predominant immunoregulatory T-cell disorders
D83.2	Common variable immunodeficiency with autoantibodies to B or T cells
D83.8	Other common variable immunodeficiencies
D83.9	Common variable immunodeficiency, unspecified
G11.3	Cerebellar ataxia with defective DNA repair

While Medicare beneficiaries in this position have options, they are more limited since the passage of the 21st Century Cures Act, and patients are advised to discuss their options with their physician and current provider of therapy well before transitioning to Medicare to develop a plan for continuation of care.

Drug coverage for other diagnoses. IG therapy for many other diagnoses is usually covered under Medicare Part B in the hospital outpatient setting or in a physician office. For those currently receiving IVIG in these sites of care, the same rules apply for transitioning to Medicare as they do for patients diagnosed with an immune deficiency. Hizentra and HYQVIA for the treatment of chronic inflammatory demyelinating neuropathy are the only additional drug and diagnosis covered by Medicare Part B in the home setting and are also covered based on the use of an external infusion pump.

For those receiving IVIG at home, the rules become more complicated. If patients keep their employer's insurance, it's possible no changes will be necessary. Medicare will be billed as the primary insurance; however, reimbursement will be denied as a noncovered benefit with a specific denial code, and then the secondary insurance will be billed. All deductibles and co-payments apply as they did when the employer's insurance was in the primary payment position. This includes government insurance such as Tricare and

Champus. However, one item that may not be covered is nursing services. To bill the secondary insurance, the provider must receive the correct denial code from Medicare. Since there is limited coverage for nursing services under Medicare Part A for homebound patients, home infusion providers are generally not able to bill nursing services and receive a denial to bill the secondary. Therefore, prior to making the change, patients should discuss how nursing services will continue to be covered with the current provider.

If patients who receive IVIG at home do not keep their employer's insurance, one option that will allow them to continue IG therapy is to purchase Medicare Part D insurance, a government program for prescription drugs administered by commercial entities. Medicare Part D consists of many plans, so it can be complicated to choose one. All medications that are prescribed, including IG, should be considered when selecting a plan.

Patients can choose a standard benefit program that may have a lower premium but may not offer assistance through the different phases of coverage. Or, they can choose a plan that may have a slightly higher monthly premium but may have better assistance through coverage phases. There were significant changes to Part D coverage starting in 2024 as a result of the Inflation Reduction Act. The first change rolled out in 2024 was the removal of the requirement for a patient co-pay in the "catastrophic" phase. The second change, which was effective Jan. 1, 2025, was a change in the coverage phases. Prior to 2025, there were four coverage phases with differing patient responsibility in each phase, and beneficiaries may have paid up to $8,000 out of pocket in the first three phases with the possibility of an additional percent of the cost of the drug in the catastrophic phase. Starting in 2025, there are only three phases, and the patient responsibility has been significantly reduced. The three coverage phases for a standard plan in 2025 are:

1) Deductible: This is paid 100 percent by patients up to a total of $590.

2) Initial coverage stage: For the standard benefit, patients pay 25 percent, and the plan pays 75 percent up to a total out-of-pocket cost of $2,000.

3) Catastrophic phase: Once patients have spent a total of $2,000, they enter the catastophic phase and don't have any additional out of pocket for the remainder of the calendar year.

Again, there are options. Patients may qualify for Extra Help, a Medicare program to help people with limited income and resources to pay Medicare prescription drug plan costs. When applying for Medicare, it is important for patients to find out if they might qualify for this program. If they don't qualify when first obtaining Medicare, patients should periodically recheck as their finances change to see if they qualify. There are also foundation assistance programs for some conditions that may help with the total out-of-pocket expense. In addition, some homecare providers may offer financial assistance programs. If patients are eligible, their financial responsibility can be reduced or waived. Also, patient advocacy groups may offer some assistance.

Medicare publishes a new fee schedule every quarter that may impact the brand of IG patients receive.

Guidance on selecting the right Medicare Part D coverage can be found at www.medicare.gov, or Medicare assistance can be obtained by calling (800) MEDICARE (633-2273).

The last option for patients who receive IVIG at home is to transition to a hospital outpatient setting where IVIG will be covered at 80 percent under Medicare Part B, with the supplemental insurance plan covering the remaining 20 percent. Coverage criteria in the hospital outpatient and physician office setting are based on National or Local Coverage Determinations (NCD or LCD) published by Medicare. The NCD/LCD defines which diagnoses are approved for treatment with IG.

If patients choose to enroll in a Medicare HMO (Medicare Part C or Medicare Advantage Plan), they may purchase pharmacy coverage, and the same rules apply as previously stated. It's important for patients to understand this before choosing a Medicare HMO so they can make the best choice and have the least interruption in therapy.

If patients also have Medicaid, known as being dual eligible, they typically have the most options. Medicare is the primary insurance, Medicaid is the secondary insurance, and they

will automatically be enrolled in Medicare Part D. Co-pays for dual-eligible patients are very low, usually in the $3 to $4 range. And, coverage may be 100 percent for infusions in the hospital or at home. However, if patients are infused in a physician office, they should check on their options.

Nursing and supply coverage for all diagnoses. In the physician office and hospital outpatient setting, nursing and supplies are covered under Medicare Part B. In the home, nursing for both IVIG and SCIG is covered under Medicare Part A if patients meet homebound criteria. If patients do not meet homebound criteria, nursing coverage has some limitations. Nursing may be covered at home under a Medicare Advantage Plan. Also in the home, supplies for IVIG are not covered, whereas they are covered for SCIG.

For many years, HR 1845, the Medicare IVIG Access Act has been in place. The Act provided for a demonstration project, known as the Medicare IVIG Demonstration Project, to examine the benefits of providing coverage and payment for items and services necessary to administer IVIG in the home for patients with primary immunodeficiency disease (PI). The three-year project was scheduled to enroll up to 4,000 Medicare beneficiaries for whom it will allow some payment for nursing services and supplies. The project applies only to situations in which the beneficiary requires IVIG for the treatment of one of the 24 qualifying PI diagnosis codes. Patients receiving SCIG are not eligible for the project unless they wish to switch to IVIG. The demonstration project was extended through 2023 and became a permanent benefit in 2024. More information on this benefit can be found at med.noridianmedicare.com/web/ivig.

One positive outcome of the 21st Century Cures Act for IG patients is the addition of payment for nursing and supplies that became effective in 2021. This coverage is limited to patients receiving SCIG, and payment is made only on dates the nurse is in the home.

Sequestration. In August 2011, Congress passed the Budget Control Act (BCA) of 2011. One focus of this act was an attempt to resolve the debt ceiling crisis. The act provided for a Joint Select Committee on Deficit Reduction (the super committee) to pass legislation that would decrease the deficit by $1.2 trillion over 10 years. However, the super committee did not pass this legislation, which automatically triggered another component of the BCA that directed automatic across-the-board cuts (sequestration) to be split evenly between defense and domestic spending. As a result, Medicare Part B began paying two percent less than quarterly published rates. For a short time during the COVID-19 pandemic, there was a moratorium on the sequester, and payment rates returned to the full quarterly published rate. The moratorium on the sequester ended in 2022 with a return to the full two percent reduction in payments effective April 1 and a return to the full two percent reduction in payments effective July 1, 2022.

An additional component of the Inflation Reduction Act was the establishment of the Medicare Drug Price Negotiation Program. That program allows Medicare to negotiate prices for certain Part D drugs with manufacturers. It will be implemented in 2027. It is important to note IG products are excluded from this program.

Know the Options

Understanding coverage and the options involved with different sites of care and routes of administration is crucial as patients transition to Medicare. Especially when Medicare becomes their primary insurance, patients should be prepared to make changes in their care to optimize coverage. It truly seems that Medicare coverage can be more complex than IG therapy! But by discussing the coverage and options with someone knowledgeable about Medicare guidelines and IG therapy, patients can make the best choices for uninterrupted care when they consider these details well in advance of becoming eligible for Medicare.

Reference

1. Centers for Medicare and Medicaid Services. HIT Monitoring Report, February 2025. Accessed at www.cms.gov/files/document/hitmonitoringreportfeb272025sxf508.pdf.

Editor's note: This is an update of an article that appeared in the April-May 2022 issue of IG Living.

LESLIE J. VAUGHAN, RPh, CSP, IgCP, is the chief operations officer and **MICHELLE GREER**, RN, IgCN, is the executive vice president of sales at Nufactor, a specialty infusion company.

Profile: Kimberly Peyton

By Trudie Mitschang

WHEN KIMBERLY Peyton began experiencing persistent fatigue, joint pain and constant infections, she never imagined it would lead to a rare immune deficiency diagnosis. After years of misdiagnoses and frustration, she finally learned she had common variable immunodeficiency (CVID) — news that changed every aspect of her life. Kimberly's journey from confusion to clarity has helped her turn her diagnosis into a personal mission of advocacy and hope.

Trudie: When did your chronic illness symptoms begin?

Kimberly: My journey really began in 2019. I was dealing with persistent symptoms — joint pain, swelling, chronic fatigue — and I was repeatedly diagnosed with various autoimmune conditions. But despite the different treatments, I just wasn't getting better. There was always something missing, something no one could quite put their finger on. It was incredibly frustrating because I love traveling, going to concerts, attending big events — just living life to the fullest. But I found myself constantly sick or worn down. It was exhausting physically and emotionally. I didn't feel like myself anymore, and that was really hard.

Trudie: When were you officially diagnosed with CVID?

Kimberly: I was diagnosed in July 2022 by an immunologist in Cincinnati, Ohio. Things started making more sense after that. In September of that year, I began weekly subcutaneous immune globulin therapy (SCIG) at a dose of 10 grams per week. Thankfully, I didn't have any issues with the infusions, and they've gone well ever since.

Trudie: Let's go back a bit. What was your life like before the diagnosis?

Kimberly: Before the diagnosis, life felt fairly normal, although I had started experiencing unexplained weight gain in my 20s. That brought a high BMI, but oddly enough, I didn't have obesity-related health problems — no high blood pressure, no diabetes, nothing like that. Still, my doctors often chalked everything up to weight. I kept trying to lose it, thinking that was the answer, but my health kept declining. I now realize CVID was silently at work behind the scenes all along.

Trudie: What has your treatment plan looked like over time? Has it changed?

Kimberly: Yes, quite a bit. I started with 10 grams weekly of SCIG. Then I started catching COVID repeatedly. My immunologist thought that maybe increasing the dose could help, especially if I could get more antibodies from donors who had COVID. So, in October 2024, they increased my dose to 14 grams. Unfortunately, I still caught COVID that same month. In January 2025, they increased it again to 16 grams weekly; that's what I'm on now.

While it hasn't stopped me from getting COVID, the symptoms are much milder now, and I recover more quickly. We're also exploring the possibility of receiving convalescent plasma through the University of Cincinnati. It's approved by the U.S. Food and Drug Administration, but implementation has been slow. There are still questions about dosage, insurance billing and infusion protocols. My doctor has been in constant contact with the manufacturer and is trying to find an infusion center willing to administer it once all the pieces fall into place.

Trudie: What changed after starting treatment?

Kimberly: Everything. After I started SCIG therapy, my IgG levels rose from the 400s to over 650 within the first month. More importantly, I started to feel better. It was like I was getting my life back after years of decline.

Trudie: How has all of this impacted your family life?

Kimberly: My family has been incredibly understanding. I think they were more shocked than anything when I got diagnosed, and that shock still hasn't fully worn off. The hardest part is canceling plans at the last minute. I might feel fine when we make the plans, but when the day arrives, I simply can't

do it. The fatigue, the flare-ups — it's unpredictable. They get that. Friends, on the other hand, sometimes struggle to understand. But I've learned to prioritize my health, even if it means disappointing people. The good news is I can travel with my infusions, so I don't always have to say no.

Trudie: You've also gotten involved in advocacy. Tell me about that.

Kimberly: Yes! I discovered the Immune Deficiency Foundation (IDF) shortly after I was diagnosed. No one had told me about it; it was something I found on my own. Initially, I joined the IDF's official Facebook group and then got involved with the foundation itself. Today, I'm a peer support volunteer. I currently support one peer directly, and hearing the hope come back into their voice is one of the most rewarding things I've ever experienced. I've also traveled to Washington, D.C., for IDF's Advocacy Day. That trip was incredible; it really opened my eyes to how much power patient voices can have. I hope to attend Ohio's PI Day at our state capital next. And, of course, I'd love to return to Washington again.

Trudie: As a designated "Plasma Hero" for IDF, what do you want more people to understand about plasma donation?

Kimberly: That it's not just for trauma or emergency situations. It takes hundreds of donors to produce a single dose of my medication. This isn't a one-time fix. I need these infusions weekly — for life. Without them, I would be incredibly vulnerable. Plasma donation quite literally keeps me alive.

Trudie: How do you respond when people you know donate plasma?

Kimberly: I'm right there in the comments, thanking them! I always make a point to let them know how deeply grateful I am. My own son started donating after seeing the impact it's had on me. That was such a proud moment.

Kimberly attended the IDF Advocacy Day in Washington, D.C., which she says "really opened my eyes to how much power patient voices can have."

Trudie: Do you have any advice for those who are newly diagnosed with CVID?

Kimberly: I wish I had some kind of secret wisdom, but really, my biggest advice is to become your own advocate. Work closely with your immunologist, and if you feel unheard or dismissed — especially if they blame everything on something like your weight — get a second opinion. Don't be afraid to ask questions. If I had accepted every answer I was given at face value, I might not be here today. Also, stay up to date on treatment options, practice good hygiene and seek medical care quickly when infections start. And again, advocate for yourself. This disease is lifelong, and you deserve to be taken seriously.

Trudie: What do you wish friends and family understood about invisible illness?

Kimberly: That it's chronic, lifelong and impacts more than just my immune system. CVID leads to autoimmune diseases, chronic fatigue and complications most people never see. The fatigue is honestly the hardest part; it's not just being tired, it's debilitating. Some people get really bothered when someone says, "But you don't look sick." For me, it doesn't sting, but I understand why it does for others. What does bother me is when someone who's sick still asks me to meet for lunch. I've gotten sick too many times from situations like that, and I finally had to draw a line.

Trudie: What has this experience taught you about yourself?

Kimberly: That I'm stronger and more resilient than I ever realized. Once I finally got the correct diagnosis, I felt an overwhelming sense of peace. It's hard to explain, but it was like I could finally breathe again. I went from being lost in a medical maze to being in the "management" phase. It's not a phase, really — it's forever — but I feel grounded now. My rheumatologist still says to me at almost every visit, "You have to do these infusions for the rest of your life?" And I always smile and say, "Yes," every single time. Then I reassure her, "We'll get you through this!" Humor helps.

Trudie: What's the one message you hope readers take away from your story?

Kimberly: That donating plasma saves lives — mine included. You may never expect to be on the receiving end, but life can change in an instant. And if that day ever comes, you'll be incredibly grateful someone out there took the time to donate. We're all more connected than we think.

TRUDIE MITSCHANG is a contributing writer for *IG Living* magazine.

The Power of Awe

By Megan Ryan

THE FIRST thing that comes to my mind when I think of the word awesome is a surfer dude on a Pacific Ocean beach yelling to his surfing buddy, "Hey dude, that's awesome!" Perhaps it's movies and popular culture that give me that strong connotation. This summer, I had the opportunity to visit Grand Teton National Park — far from a Pacific Ocean beach, but awesome in every sense of the word!

The root of awesome is awe. Awe is that overwhelming feeling of something grand that fills you with wonder and inspires you just to sit or stand and take the feeling in — physically, mentally, spiritually and emotionally. In the Tetons, I experienced awe every direction I turned, and it had a powerful impact on my body, mind and soul. From watching the sunrise peek over the horizon and through the trees to cast a morning blaze of light in the sky, to turning a corner on a trail and looking up to find a few deer grazing near Jenny Lake — there was awe all around me. The grandness of nature in the setting of mountains, lakes, streams and waterfalls compelled me to pause and fully experience the beauty found in those moments.

While on vacation, there's a novelty to visiting a new destination or returning to a favorite place and looking out on scenic vistas or snow-capped mountains you've only seen online or in a book. The moment you realize your heart is beating in that postcard scene, it's awesome! But back to reality — that's not what I see every day. Back home, I find I am continuously reflecting on those experiences and looking for awe in my everyday moments.

As the seasons change, I'm going to take more notice and be in awe of nature at work — watching, listening and even smelling the change of seasons.

I don't live near a majestic mountain range with daily wildlife sightings of moose, bison, deer, fox and elk; rather, I live in the middle of the fourth largest city in the United States that is as flat as a tortilla, and city wildlife is limited to birds, squirrels, an occasional opossum or raccoon or the rare sighting of the state small mammal — the armadillo. But that does not mean I cannot find awe. At home, I just must appreciate it in different ways — a bit of reframing.

I'm an avid early morning walker, and watching the sunrise is a source of awe that I'm relishing more. I'm listening to the chirping of birds in the trees or the rustling tree leaves in the wind. I'm watching the squirrel's fluffy tail dancing on the perch of a bird feeder a bit more closely these days, and I am intrigued by his balancing act. I'm paying more attention to the rain lilies that pop up after a drenching rainstorm.

Another area I'm looking to explore for awe is the intricate details often overlooked. Consider the microscopic world: the beauty in the wings of a butterfly or dragonfly; the vibrant, complex ecosystem thriving within a few drops of pond water; or the unique patterns that form tree bark. Even observing a single leaf, tracing its delicate veins, can reveal hidden wonders. These close-up encounters with nature's artistry remind me that awe isn't just about grand vistas, but also about the profound beauty and complexity woven into every fiber of the natural world, waiting to be discovered with a keen eye.

And as the seasons change, I'm going to take more notice and be in awe of nature at work — watching, listening and even smelling the change of seasons. I find that when I'm experiencing awe, my heartbeat slows a bit, my breathing calms and my thoughts even. All that has to be good for my immune system!

Stay on the lookout for moments of awe — even in your own backyard!

MEGAN RYAN is a native Texan, lover of flowers, plants and gardening and always planning for an upcoming travel adventure. For more than 22 years, Megan has lived with common variable immune deficiency. She's taken her weekly treatments on the road to more than 20 countries and four continents so far.

IgNS Immunoglobulin National Society

Advancing Ig Therapy Practice

NOW AVAILABLE!

Patient Guide to Immunoglobulin Therapy

WHAT'S INSIDE

Understanding Clinical Standards:

- Ig therapy explained
- Understanding the care your Ig clinician provides
- What to expect before, during, and after Ig treatment
- Strategies for a better Ig experience
- How to be an active part of your care team

Scan the QR Code and **Order Your Free Copy Today!**

octagam® 10%

Immune Globulin
Intravenous (Human) 10%
Liquid Preparation

For the treatment of dermatomyositis (DM) in adults

INDICATIONS AND USAGE

OCTAGAM 10% is indicated for the treatment of chronic immune thrombocytopenic purpura (cITP) in adults and dermatomyositis (DM) in adults. For patients with cITP, it is used to rapidly increase the platelet count in the blood to help control or prevent bleeding. For patients with DM, it helps improve muscle function and skin rash.

OCTAGAM 10% is a liquid medication that contains Immunoglobulin G (IgG). OCTAGAM 10% is made from human plasma donated by healthy people. OCTAGAM 10% is given through the vein (intravenously) in a hospital, infusion center, or at home.

IMPORTANT SAFETY INFORMATION

- Do not use OCTAGAM 10% if you have had a severe allergic reaction to IgG or other blood products or have deficiencies of immunoglobulin A (IgA) with antibodies to IgA.
- OCTAGAM 10% can cause the following:
  - Blood clots in your heart, brain, lungs or other areas of your body
  - Kidney problems, or kidney failure
- Tell your healthcare provider (HCP) if you have an allergy to corn. OCTAGAM 10% contains a type of sugar that is made from corn.
- OCTAGAM 10% can cause the following serious side effects. Contact your HCP if you experience the following:
  - Swelling in your mouth or throat, hives/itching, breathing problems, wheezing, fainting, tightness in your chest, or dizziness. This could be a serious allergic reaction.
  - Decreased urination, swelling in your legs, sudden weight gain, or breathing problems, which could mean kidney failure
  - Pain and/or swelling of an arm or leg with warmth in the affected area, discoloration of an arm or leg, unexplained shortness of breath, chest pain or discomfort that worsens with deep breathing, unexplained rapid pulse, or numbness or weakness on one side of the body; these could be signs of a blood clot.
  - Yellow skin or eyes, dark-colored urine, fatigue, or increased heart rate, which could be signs of a blood problem.
  - Headache, stiff neck, drowsiness, fever, sensitivity to light, painful eye movements, or nausea and vomiting, which could mean an inflammation of the membranes covering your brain or spinal cord
  - Trouble breathing, chest pain, blue lips, arms or legs, and fever, which could be related to a lung problem. This typically occurs 1 to 6 hours following infusion.

OCTAGAM 10% helped patients achieve greater improvement in DM symptoms compared to placebo

In a clinical trial, 95 adults with dermatomyositis (DM) were split into two groups. Group 1 was given OCTAGAM 10% and Group 2 was given placebo. Patients in both treatment groups could continue taking their other medications while they were part of the trial. The clinical trial looked at how patients improved in DM muscle and skin symptoms. Researchers measured 3 levels of symptom improvement after 16 weeks: minimal, moderate, and major.*

*Symptoms were measured on a 100-point scale as measured by the Total Improvement Score (TIS), with 0 being worsening or no improvement and 100 being the most improvement. An improvement of at least 20 points was considered minimal; at least 40 points was considered moderate; and at least 60 points was considered major.

79%

At least minimal improvement
vs 44% placebo
(primary endpoint)

68%

At least moderate improvement
vs 23% placebo
(secondary endpoint)

32%

Major improvement
vs 8% placebo
(secondary endpoint)

Patients treated with OCTAGAM 10% saw
symptom improvement in 35 days†

†Based on measuring median time to (at least) minimal improvement.

Most common drug-related side effects

In a clinical study, more than 5% of patients had the following side effects:

Headache: 42%; **Fever:** 19%; **Nausea:** 16%; **Vomiting:** 8%; **Chills:** 7%; **Musculoskeletal pain:** 7%; **Blood pressure increased:** 6%

Eligible patients may pay as little as $0 with the OCTAGAM 10% Co-Pay Program‡

May reduce out-of-pocket costs by up to $12,500 per calendar year.

‡Terms and conditions apply. See full Terms and Conditions at **Octagam10CoPay.com**

Pfizer IGuide™ is committed to providing access solutions for patients prescribed OCTAGAM 10%.

Call 1-844-448-4337, Monday through Friday, 8 AM to 8 PM ET, or visit www.PfizerIGuide.com

Common side effects include headache, fever, nausea, vomiting, increased blood pressure, chills, musculoskeletal pain, dyspnea, infusion site reactions, and increased heart rate.

If you use a blood glucose monitor, check with your HCP to ensure that your monitor and test strips are acceptable to use while you are receiving OCTAGAM 10%.

These are not all of the possible side effects with OCTAGAM 10%. Tell your HCPs about any side effects that you have that cause concern or don't go away.

Talk to your doctor or visit OctagamInfo.com to learn more

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the U.S. Food and Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

Please see Brief Summary of full Prescribing Information on following page and full Prescribing Information, including complete BOXED WARNING, at OctagamInfo.com

Pfizer | octapharma

Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H.
Distributed by Pfizer Labs, Division of Pfizer Inc.

 PP-OTG-USA-0396 February 2025

octagam®10%

Immune GlobuLin
Intravenous (Human) 10%
Liquid Preparation

CONSUMER BRIEF SUMMARY

This brief summary highlights the most important information about OCTAGAM 10%. Please read it carefully before receiving OCTAGAM 10% and each time you have an infusion, as there may be new information. This brief summary does not take the place of talking with your healthcare provider (HCP) about your medical condition or your treatment. If you have any questions after reading this, ask your HCP. For more information, go to OctagamInfo.com/Octagam-10.

What is OCTAGAM 10%?

OCTAGAM 10% is a liquid medication that contains Immunoglobulin G (IgG). OCTAGAM 10% is used to treat chronic immune thrombocytopenic purpura (cITP) in adults and dermatomyositis (DM) in adults.

OCTAGAM 10% is made from human plasma donated by healthy people. For patients with cITP, it is used to rapidly increase the platelet count in the blood to help control or prevent bleeding. For patients with DM, it helps improve muscle function and skin rash.

OCTAGAM 10% is given through the vein (intravenously) in a hospital, infusion center, or at home by a trained HCP.

WARNING: THROMBOSIS, RENAL DYSFUNCTION, AND ACUTE RENAL FAILURE

- **Thrombosis may occur with immune globulin intravenous (IgIV) products, including OCTAGAM 10% liquid. Risk factors may include: advanced age, prolonged immobilization, hypercoagulable conditions, history of venous or arterial thrombosis, use of estrogens, indwelling central vascular catheters, hyperviscosity, and cardiovascular risk factors. Thrombosis may occur in the absence of known risk factors.**
- **Renal dysfunction, acute renal failure, osmotic nephrosis, and death may occur in predisposed patients who receive IgIV products, including OCTAGAM 10% liquid. Patients predisposed to renal dysfunction include those with a degree of pre-existing renal insufficiency, diabetes mellitus, age greater than 65, volume depletion, sepsis, paraproteinemia, or patients receiving known nephrotoxic drugs. Renal dysfunction and acute renal failure occur more commonly in patients receiving IgIV products containing sucrose. OCTAGAM 10% liquid does not contain sucrose.**
- **For patients at risk of thrombosis, renal dysfunction, or acute renal failure, administer OCTAGAM 10% liquid at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.**

Who should NOT use OCTAGAM 10%?

Tell your HCP if you:

- Have had a severe allergic reaction to IgG or other blood products
- Have deficiencies of immunoglobulin A (IgA) with antibodies to IgA

What should I know before receiving OCTAGAM 10%?

OCTAGAM 10% can cause the following:

- Blood clots in your heart, brain, lungs or other areas of your body
- Kidney problems, or kidney failure
- Tell your HCP if you have an allergy to corn. OCTAGAM 10% contains a type of sugar that is made from corn.
- If you use a blood glucose monitor, check with your HCP to ensure that your monitor and test strips are acceptable to use while you are receiving OCTAGAM 10%

OCTAGAM 10% can cause the following serious side effects. Contact your HCP if you experience the following:

- Swelling in your mouth or throat, hives/itching, breathing problems, wheezing, fainting, tightness in your chest, or dizziness. This could be a serious allergic reaction.
- Decreased urination, swelling in your legs, sudden weight gain, or breathing problems, which could mean kidney failure.
- Pain and/or swelling of an arm or leg with warmth in the affected area, discoloration of an arm or leg, unexplained shortness of breath, chest pain or discomfort that worsens with deep breathing, unexplained rapid pulse, or numbness or weakness on one side of the body; these could be signs of a blood clot.
- Yellow skin or eyes, dark-colored urine, fatigue, or increased heart rate, which could be signs of a blood problem.
- Headache, stiff neck, drowsiness, fever, sensitivity to light, painful eye movements, or nausea and vomiting, which could mean an inflammation of the membranes covering your brain or spinal cord.
- Trouble breathing, chest pain, blue lips, arms or legs, and fever, which could be related to a lung problem. This typically occurs 1 to 6 hours following infusion.

What are the possible or reasonably likely side effects of OCTAGAM 10%?

Common side effects include headache, fever, nausea, vomiting, increased blood pressure, chills, musculoskeletal pain, dyspnea, infusion site reactions, and increased heart rate.

These are not all the possible side effects with OCTAGAM 10%. Tell your HCP about any side effects that you have that cause concern or do not go away. If you encounter any problems or experience side effects during or after the infusion, contact your HCP. When doing so, keep your therapy tracker with you to be able to give all necessary information.

Patients should always ask their doctors for medical advice about adverse events.

You may report an adverse event related to Pfizer products by calling 1-800-438-1985 (US only). If you prefer, you may contact the US Food and Drug Administration (FDA) directly. The FDA has established a reporting service known as MedWatch where healthcare professionals and consumers can report problems they suspect may be associated with the drugs and medical devices they prescribe, dispense, or use. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

This brief summary is based on the OCTAGAM 10% Prescribing Information (March 2022).

OCTAGAM® is a registered trademark of Octapharma AG.

Pfizer | octapharma® | **Manufactured by Octapharma Pharmazeutika Produktionsges m.b.H.**
Distributed by Pfizer Labs, Division of Pfizer Inc.

Holding Space for the Hard Parts

By Michelle Searle

I WAS planning to write this month's column about joy — something light, hopeful and fun. But as the weeks passed, I wasn't feeling very joyful regarding my health. Over the past few months, my health has been a challenge. I've had an overwhelming number of doctor appointments and test results that did not come back as normal as I had expected. I've been getting migraines with almost every infusion, making me delay them at times, especially when I have something important afterward that I don't want to miss. Recently, I learned I have an iron deficiency. I've had to wear a heart monitor for two weeks to track symptoms, and I've also been dealing with other random symptoms, going from doctor to doctor, trying to gain some answers.

For almost a year, I was feeling dizzy and lightheaded on and off. Sometimes, it would be for just an hour, while other times, it would be for most of the day for a week straight. That kind of uncertainty — not knowing what is wrong and why it's happening — is extremely hard and frustrating. It's scary not to know what's wrong with your body, and it chips away at your sense of control. I went to my primary care doctor, neurologist and an ENT. Somehow, it seemed like each appointment led to two or three other appointments between making appointments for blood work, additional testing, being referred to another doctor, etc. When I finally learned the dizziness and lightheadedness were connected to migraines, I cried because it felt so good to finally have an answer, and I felt relieved it wasn't something more serious. Once the excitement wore off, I felt a bit sad because it meant my migraines were getting worse. And that means yet another health issue to manage. And that's where I am right now: managing. Not thriving. Not growing. Just managing.

Sometimes, it feels like there's this unspoken expectation that we're supposed to find meaning in our struggles. That we should turn our pain into something inspiring or at least bear it with grace. And don't get me wrong, I do it often. I often write about the joyful moments. I lean into gratitude. I look for silver linings. And when those things come naturally, I embrace them. Thankfully, they come naturally to me pretty often because I'm a positive person. But when they don't, I'm learning not to force them. I'm working on letting go of that pressure, because dealing with chronic illness itself is enough pressure. I don't need to add any more pressure on myself.

Right now, I don't have a silver lining to share. I don't have a message wrapped up in a bow. And that's important to say because maybe you don't either. You may also be in a chapter that feels messy, exhausting and unfair. Maybe you've been to one too many appointments lately, have received news you didn't want or you're just tired of how much space your illness takes up in your life. If that's where you are, I want you to know you're not alone. Sometimes, chronic illness doesn't offer a neat takeaway. Sometimes, it doesn't teach you something or make you stronger. Sometimes, it is just a weight you carry, a disruption you didn't ask for, a constant background noise you can't turn down. That doesn't mean you're doing anything wrong. It doesn't mean you've failed at coping. It just means you're human, and whatever you're going through is hard.

Strength doesn't always look like bouncing back or pushing through with a smile. Sometimes, strength is being honest about how hard things are. Sometimes, it's asking for help, resting when you need to or admitting you don't have the energy to put on a brave face.

Writing this doesn't feel especially inspiring, but it feels brave and honest. It's not easy to admit I've been struggling because I don't want people to worry, pity me or give advice when they don't know what it's like. But maybe being honest is enough. Maybe we don't always need to turn pain into purpose. Maybe it's OK for some chapters to simply be what they are — hard, heavy and unresolved.

This isn't the column I set out to write, but maybe it's the one I needed to write. And maybe, if you're struggling too, it's the one you need to read. If you're in a season where things feel harder or more complicated than usual, please know you're not alone. It's OK if this part doesn't make sense yet. It's OK if you're not finding the silver lining. I'm not, either, but I'm still here. And you are too. And for now, that's enough. IG

MICHELLE SEARLE is a teacher from South Florida who was diagnosed with common variable immunodeficiency at 11 years old. She is currently living in New York where you will most likely find her eating pizza or trying to make friends with the local cats.

The Importance of Teaching Your Kids to Say "No"

By Jessica Leigh Johnson

WHEN IT comes to raising kids with chronic illnesses like primary immunodeficiency, we tend to focus a lot on the physical aspects of child-rearing, such as keeping our kids healthy, making sure they avoid germs, taking them to the doctor, making sure they receive regular treatments, etc. But raising kids to adulthood isn't just about the physical. One day, when we stand in the doorway waving goodbye to our children as they set off on their own as adults, we'd better hope we did a lot more than just keep them alive for 18 years. We would like to think that we've raised mature, responsible adults with goals and a sense of purpose, individuals who are capable of making good decisions and contributing to the world around them. One of the most important things we can do to help our children thrive throughout their entire lives is to instill in them a clear sense of responsibility, and along with that comes learning how to say "no."

Teaching children to say "no" is essential for their emotional development, their sense of self and their ability to handle social situations. By understanding the significance of teaching children how to assertively say "no," we can better prepare them to navigate life's challenges and interactions with others. Saying "no" empowers them to set boundaries, make choices that align with their feelings and beliefs and potentially avoid harmful situations.[1]

Benefits of Knowing When and How to Say "No"

When children say "no," they are establishing emotional and physical boundaries. Whether someone has done something to them that they don't like, such as pulling a toy from their grip or telling them to go to bed when they aren't ready, they learn to assert their will at a very young age. While it might come across as sheer defiance in toddlers and young children, saying "no" actually helps children understand and communicate their feelings, especially when they are uncomfortable or disagree with something.

The practice of saying "no" has often been associated with drugs, sex and other risky behaviors teenagers might choose to engage in. There are obviously so many more applications than this, but we can't forget these things, either. If kids learn from a young age how to set limits and state clearly what they are and are not willing to do, they'll be able to say "no" in situations where they could potentially come to harm. Teaching children to say "no" is crucial for instilling a sense of body autonomy. It allows children to claim ownership of their bodies and personal space, helping them to distinguish between appropriate and inappropriate or unwanted physical contact. When parents teach their kids that their bodies are their own, and they have the right to set boundaries to ensure their comfort and safety, they are taking an essential step toward safeguarding their children against abuse or manipulation.[1]

Saying "no" helps children develop decision-making skills, empowering them to make choices for themselves, leading to a sense of independence and self-reliance. Also, the practice of enforcing their own boundaries teaches children to respect the boundaries of others, and opens communication and negotiation, helping children learn how to verbalize their needs and find solutions that are mutually acceptable.[1]

Tips for Teaching Your Kids to Say "No"

Since children learn how to use the word "no" at a young age, why do parents need to teach them something they already understand?

It seems that sometime during childhood, kids pick up the idea that saying no to others is inherently wrong: Either it hurts people's feelings or it's rude. Kids are told by their parents that, for example, if Aunt Rose wants to plant a wet kiss on their cheek, she has the right to because she's their elder, whether or not it grosses the kids out or makes them uncomfortable. What we as parents

should be teaching our children is that it's not wrong to say no to things they're not comfortable with, and it's OK to state their preferences and make their desires clear.

Model the behavior yourself. Parents can help their children figure out when and how to use the word "no" both effectively and respectfully by modeling the behavior themselves, and by listening and reacting appropriately when their children use the word the first time and not waiting for them to repeat it over and over before finally giving in. For example, if a father and young child are engaged in a "tickle fight," and the child has had enough and says, "Please stop, Daddy," the father can either ignore his child and keep going, saying something like, "Ah, come on, we're just having fun," or he could respect his child's boundaries and wishes and stop immediately. The second response shows the child that his or her feelings and boundaries are important, and that the parent respects that. These teaching moments go a long way toward helping the children develop a sense of autonomy and ownership of their own bodies.

Practice. Parents can help provide opportunities for their children to practice saying "no" in various situations.[1] For older children and teens, who are more likely to become overcommitted and stressed if they don't learn to say "no," it might be a good idea for them to make a specific plan before they are confronted with a request, say for a job or a volunteer opportunity — or even a date with someone they're not romantically interested in. If they've prepared a generic response ahead of time, they're far more likely to stick with their original intentions when the situation presents itself later on. Saying something as simple as "That doesn't work for me this time" or "I'm sorry, but I can't make it" is usually sufficient. As long as the phrase is something they would feel comfortable saying, have children or teens choose a default way to say no, and then help them practice saying it before they need to use it in real life.[2]

Teaching children to say "no" is essential for their emotional development, their sense of self and their ability to handle social situations.

Say "no" without being rude. One of the challenges in teaching children how to say "no" is how to help them do it with confidence and assertiveness while at the same time not being rude. Assertiveness means communicating your needs or desires in a clear and honest way without disrespecting others or undermining them. Being assertive empowers children to express their boundaries, but it does so in a respectful and considerate manner.[1] It is vital to explain to kids that while it is OK to be assertive and say "no," it is not OK to be rude or disrespectful. By teaching kids the difference between assertiveness and rudeness, parents can help equip their children with the skills and emotional intelligence to gracefully navigate complex social situations.[2]

One thing to note when it comes to rudeness: "No" is a perfectly acceptable answer when it comes to body autonomy. If children say "no" politely and it is ignored, they should be encouraged to firmly restate with increasing assertiveness (and volume) of their boundaries, making it clear that their consent has not been given and their wishes must be respected. Parents should teach their children to seek help from a trusted adult or authority figure if the situation persists or escalates.[1]

Confidently Saying "No"

As children grow to become adults, they will benefit from knowing how to confidently say "no." Having a deeper understanding of their own autonomy will help them develop a greater respect for the personal boundaries of others. Assertive children are better equipped to communicate their needs, set boundaries and resolve conflicts peacefully, which contributes to their success in academic performance, social interactions and in future endeavors.[1] IG

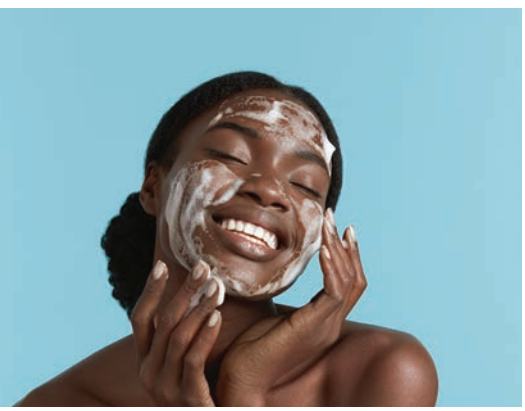
References

1. Connected Education. Empowering Kids to Say "No" with Confidence, Nov. 27, 2023. Accessed at raisingconnectedkids.com.au/empowering-kids-to-say-no-with-confidence/.
2. Carter, C. Teaching Teens to "Just Say No." Accessed at www.christinecarter.com/2017/10/teaching-teens-just-say-no.

JESSICA LEIGH JOHNSON is a stay-at-home mom and mother of four kids, three of whom have X-linked agammaglobulinemia. She is a member of American Christian Fiction Writers and has written one book about the loss of her son to a primary immunodeficiency.

Caring for Your Skin

By Rachel Maier, MS



MY GRANDMOTHER had gorgeous skin. Even in her old age, her skin was smooth and lovely, well-earned wrinkles and all. She was the sort of woman who appreciated and valued what she had, so it's no wonder she took good care of her skin. She also lived life with a practical, common-sense approach, and that attitude kept her loyal to Pond's cold cream for decades. She used it every night, and her skin was always soft, smooth and supple, and it even seemed to glow when she smiled. Skin care trends came and went, but Grandma's routine never changed. It worked, so why change it?

Yet no matter how much I loved my grandma's glowing skin, I didn't share her conviction about cold cream. As a teenager and young adult, I spent lots of time and money trying all sorts of lotions and potions in pursuit of "perfect skin." If it was new and trendy, I tried it. Some products worked better than others, but most of them yielded about the same results. Over time, the most important lesson I learned is this: I can try to scrub, tone, moisturize and mask my way to better skin, but topical treatment will only go so far because healthy skin actually starts from the inside out.

Healthy Skin from the Inside Out

We've all heard the old adage, "You are what you eat," and it turns out to be true. What you put *in* your body matters more than what you put *on* your body. Drinking excessive amounts of alcohol, smoking and eating a lot of sugar breaks down your skin's healthy cells. However, avoiding those destructive things and replacing them with compounds that are good for you can actually change the quality of your skin.

For example, if you want hydrated skin, hydrate your body (that is, drink plenty of water!); if you want a healthy glow, eat foods high in vitamin C and antioxidants that naturally give your skin a brightening boost; if you want supple, sultry skin, eat some fish rich in omega-3 fatty acids like salmon. If improved elasticity is what you're after, eat unsaturated fats that contain essential fatty acids such as avocados, nuts and olive oil. And, foods high in beta carotene, such as sweet potatoes and bell peppers, can even provide your body with carotenoids that act as a natural sunblock.[1] Who knew?

What About the Extras?

I know what you're wondering: What about all those extra products such as toners, exfoliators and serums? Are they worth your time and money? They might be, depending on your skin care goals. Toner soothes and hydrates; exfoliators slough off dead skin; and some serums can help address things such as uneven skin tone, acne or aging skin. Feel free to use them if they work for you.

But remember: The first step toward healthy skin is nourishing it from the inside out, not from the outside in. Avoid processed foods; eat real, nutritious food; stay well-hydrated; get plenty of sleep; limit alcohol; and don't smoke. The next step is a simple skin care routine: Wash your face; keep it hydrated and shield it from the sun. Reach for tried-and-true products that get the job done: a gentle cleanser, daily moisturizer and sunscreen.

Simple, Effective Skin Care

After decades of looking for my own go-to 21st century must-have skin care secret (like my grandma's 1950s cold cream), I finally found it, and it's a combination of common sense and sticking with products that work. Feed my body well first, and then stick to a consistent skin care routine (cleanse, moisturize, protect). Find a few products you love, and stick with them. Don't worry about trying the latest beauty trend or skin care secret unless you really want to. Simple, affordable and consistent skin care works great, too. IG

Reference

1. Jones, T. The 11 Best Foods for Healthy Skin. Healthline, updated Oct. 14, 2024. Accessed at www.healthline.com/nutrition/12-foods-for-healthy-skin.

RACHEL MAIER, MS, is the associate editor of *IG Living* magazine.

Cetaphil Daily Facial Moisturizer

This nourishing lightweight facial moisturizer protects against UVA and UVB rays while providing immediate oil-free hydration that lasts for 24 hours and strengthens the skin barrier, leaving skin with a matte, satin finish. It is formulated with broad spectrum SPF 35 and has a unique blend of antioxidants that protect against surface-free radical damage. It nourishes the skin with edelweiss flower and vitamins E, B3 and B5, and absorbs quickly without leaving a greasy residue so that skin is left feeling hydrated and balanced with a matte finish. Dermatologist-tested and clinically proven to be gentle on sensitive skin. *$14.19; www.target.com/p/cetaphil-daily-facial-moisturizer-with-sunscreen-spf-35-3oz/-/A-80159994*

Cetaphil Gentle Foaming Cleanser

This gentle, self-foaming facial cleanser gently removes dirt, oil and makeup without drying to maintain skin's natural moisture balance. It is formulated with hydrating glycerin and vitamins B5 and E to soften as it cleans. Its self-foaming pump produces a rich, airy lather that rinses away easily and gently cleanses without leaving skin feeling dry or tight. Dermatologist-tested and clinically proven to be gentle on sensitive skin. *$8.99; www.target.com/p/cetaphil-oil-free-gentle-foaming-facial-cleanser-with-glycerin-8-floz/-/A-52584199*

Shopping Guide for Skin Care

Skincare Decoded: Revised and Expanded: The Practical Guide to Beautiful Skin

In this practical, hands-on guide, two skin care experts break down and clarify three essential areas: the fundamentals (master the basics of cleansing, moisturizing and protecting your skin); treatment (find out which extra products you should actually be using, if any); and routines (learn how to build the perfect routine for your skin type and quirks). This book also explains the biology behind how skin care ingredients work for your skin, shares industry insider hacks and answers your FAQs. *$27.90; www.amazon.com/Skincare-Decoded-Expanded-Practical-Beautiful/dp/B0DB5X83LQ*

Garnier Micellar Cleansing Water All-in-1 Waterproof

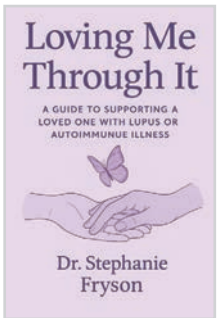
This all-in-one cleanser is a multipurpose must have! I'm devoted to it the way my grandma was devoted to her cold cream. Micellar water is a clear, water-like liquid that contains one or several surfactants (molecules that have both a water-attracting head and an oil-attracting tail) that capture and lifts away dirt, oil and makeup without harsh rubbing, leaving skin perfectly clean and refreshed without a greasy residue or over-drying. *$8.99; www.target.com/p/garnier-skinactive-micellar-cleansing-water-for-waterproof-makeup/-/A-53428415*

CALA Spa Headband and Wristband Set

CALA Spa Headband and Wristband Set is the ultimate accessory when pampering, cleansing, masking or simply applying your make-up. This super-soft headband will keep your luscious locks swept away from your face and free from product. *$12; www.calaproduct.com/spa-headband-wristband-set-pink*

Clean Skin Club Clean2 Pads 2.0

These dermatologist-approved dual-sided face pads are larger, thicker and outperform conventional face pads in every category. The textured side is ideal for makeup removal and gentle exfoliation, while the smooth side is ideal for removing makeup from sensitive areas or applying toners. *$7.95; www.amazon.com/Guaranteed-Textured-Organic-Disposable-Remover/dp/B0B3NHT4J8*



Loving Me Through It: A Guide to Supporting a Loved One with Lupus or Autoimmune Illness

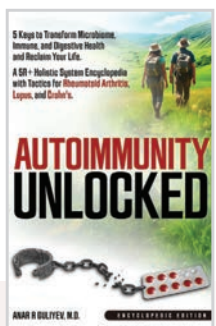
Author: Stephanie Fryson, PhD
Publisher: Independently published

Loving Me Through It is a compassionate guidebook for parents, partners and caregivers supporting someone diagnosed with lupus or another autoimmune illness. Written by a healer, educator and lupus warrior, this book offers clear, heartfelt instructions on how to show up with empathy, respect and consistency. Included is what to say (and what not to say); how to support on flare days and doctor visits; herbal and holistic support tips; practical guidance on boundaries and burnout; and encouraging affirmations for both the supporter and the loved one.

Autoimmunity Unlocked: 5 Keys to Transform Microbiome, Immune, and Digestive Health and Reclaim Your Life

Author: Anar R Guliyev, MD
Publisher: Invent&Discover

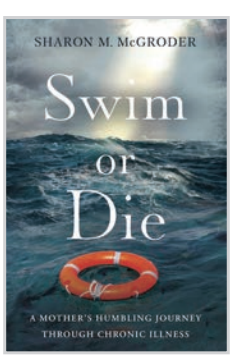
Autoimmunity Unlocked is a complete guide to the 5R+ System — a revolutionary approach to addressing chronic immune diseases by focusing on and treating the human microbiome and body as an interconnected ecosystem. The book is an encyclopedia of healthy living centered on the immune system, microbiome and digestive health. Designed for readers of all backgrounds — regardless of medical expertise — this book simplifies complex functional medicine concepts into practical and actionable steps to holistic health.



New and Useful Reading

Swim or Die: A Mother's Humbling Journey Through Chronic Illness

Author: Sharon McGroder
Publisher: River Grove Books

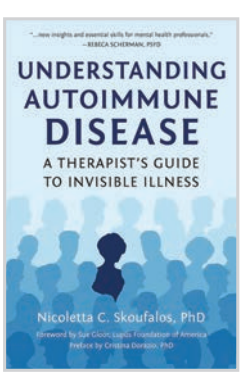


When Sharon McGroder's 16-year-old son, Evan, was diagnosed with Lyme disease, his worsening symptoms resurrected childhood feelings of ineptitude watching her parents struggle with chronic diseases, which lead her to push Evan beyond his capabilities. While recounting her family's journey with chronic disease, Sharon draws from her expertise as a family researcher to explore the themes of childhood trauma, fear, depression, family relationships and parenting.

Understanding Autoimmune Disease: A Therapist's Guide to Invisible Illness

Author: Nicoletta Skoufalos
Publisher: Hatherleigh Press

Only by understanding the impact autoimmune diseases have on an individual's life — from pre-diagnosis, to diagnosis, to post-diagnosis — can a mental health professional provide the type of help, support and guidance these individuals desperately need. This book helps those with autoimmune diseases feel both safe and seen, and enables both doctor and patient to work from common ground toward a better quality of life.



Want to Learn About Topics Important to Chronic Illness Patients Living with Autoimmune and Immunodeficiency Disorders?

LISTEN TO THE IG LIVING ADVOCATE AUDIO PODCAST!

Sample Episode Topics:

- The Increased Demand for Immune Globulin Products and Its Effects on Patient Access
- Planning for Retirement with Chronic Illness
- Changes in Medicare That Affect Patients Treated with Immune Globulin
- IG Infusions in the Home Setting
- The Road to Diagnosis

The ONLY Podcast for Autoimmune and Immunodeficient Patients:
www.igliving.com/life-with-ig/ig-living-advocate-podcast.html

Subscribe to IG Living Magazine to Receive Notifications About Upcoming Podcast Episodes

* Produced by IG Living magazine, written for patients treated with immune globulin therapy and their caregivers.

Abbie Cornett, MBA
IG Living Patient Advocate

Ataxia Telangiectasia (A-T)

Websites

- A-T Children's Project: www.atcp.org

Chronic Inflammatory Demyelinating-Polyneuropathy (CIDP)

Websites

- GBS/CIDP Foundation International: www.gbs-cidp.org

Evans Syndrome

Online Peer Support

- Rare Connect Evans Syndrome Community Group: www.rareconnect.org/en/community/evans-syndrome/faqs

Guillain-Barré Syndrome (GBS)

Websites

- GBS/CIDP Foundation International: www.gbs-cidp.org
- The Foundation for Peripheral Neuropathy: www.foundationforpn.com

Online Peer Support

- GBS Support Group: www.gaincharity.org.uk
- GBS/CIDP Foundation International Community Forums: forum.gbs-cidp.org

Immune Thrombocytopenia (ITP)

Websites

- ITP Support Association – UK: www.itpsupport.org.uk
- Platelet Disorder Support Association: www.pdsa.org

Kawasaki Disease

Websites

- American Heart Association: www.heart.org/en/health-topics/kawasaki-disease
- American Academy of Family Physicians: www.aafp.org/afp/2006/1001/p1141.html
- Kawasaki Disease Foundation: www.kdfoundation.org
- KidsHealth: www.kidshealth.org/parent/medical/heart/kawasaki.html

Mitochondrial Disease

Websites

- United Mitochondrial Disease Foundation: www.umdf.org
- MitoAction: www.mitoaction.org

Multifocal Motor Neuropathy (MMN)

Websites

- The Foundation for Peripheral Neuropathy: www.foundationforpn.com

Multiple Sclerosis (MS)

Websites

- Multiple Sclerosis Association of America: www.mymsaa.org
- Multiple Sclerosis Foundation: www.msfocus.org
- National Multiple Sclerosis Society: www.nationalmssociety.org

Online Peer Support

- Friends with MS: www.FriendsWithMS.com
- MSWorld's Chat and Message Board: www.msworld.org
- Overcoming Multiple Sclerosis: www.overcomingms.org/community

Myasthenia Gravis (MG)

Websites and Chat Rooms

- Myasthenia Gravis Foundation of America (MGFA): www.myasthenia.org
- Myasthenia Gravis Association: mgakc.org

Online Peer Support

- Genetic Alliance: www.geneticalliance.org

Myositis

Websites

- The Myositis Association: www.myositis.org
- International Myositis Assessment and Clinical Studies Group: www.niehs.nih.gov/research/resources/imacs/index.cfm

Online Peer Support

- Juvenile Myositis Family Support Network: www.curejm.org/fsn/index.php
- The Cure JM Foundation: www.curejm.org
- Myositis Association Support Group: www.myositis.org/patient-support/support-groups
- Myositis Support Group – UK: www.myositis.org.uk

Pediatric Autoimmune Neuropsychiatric Disorder Associated with Streptococcus (PANDAS)

Websites

- PANS/PANDAS UK: www.panspandasuk.org
- PANDAS Network: www.pandasnetwork.org
- PANDAS Physician Network Family Resources: www.pandasppn.org/parent-information
- National Institute of Mental Health: www.nimh.nih.gov/health/publications/pandas/index.shtml

Pemphigus and Pemphigoid

Websites

- The International Pemphigus and Pemphigoid Foundation: www.pemphigus.org

Peripheral Neuropathy (PN)

Websites

- Neuropathy Action Foundation: www.neuropathyaction.org
- Western Neuropathy Association: www.pnhelp.org
- Neuropathy Alliance of Texas: www.neuropathyalliancetx.org
- The Foundation for Peripheral Neuropathy: www.foundationforpn.com

Primary Immune Deficiency Disease (PI)

Websites

- Immune Deficiency Foundation: www.primaryimmune.org
- Jeffrey Modell Foundation: www.info4pi.org
- The National Institute of Child Health and Human Development (NICHD): www.nichd.nih.gov/Pages/index.aspx
- American Academy of Allergy, Asthma & Immunology: www.aaaai.org
- International Patient Organisation for Primary Immunodeficiencies (IPOPI) — UK: www.ipopi.org
- Rainbow Allergy-Immunology: www.uhhospitals.org/rainbow/services/pediatric-allergy-and-immunology

Online Peer Support

- IDF Friends: www.idffriends.com
- Jeffrey Modell Foundation Facebook Page: www.facebook.com/JMFworld
- IDF Peer Support Program: www.primaryimmune.org/idf-peer-support-program

Scleroderma

Websites

- Scleroderma Foundation: www.scleroderma.org
- Scleroderma Research Foundation: www.srfcure.org
- Johns Hopkins Scleroderma Center: www.hopkinsscleroderma.org

Online Peer Support

- Scleroderma Support Forum: www.curezone.com/forums/f.asp?=404

Stiff Person Syndrome (SPS)

Websites

- American Autoimmune Related Diseases Association Inc.: www.aarda.org
- Genetic Alliance: www.geneticalliance.org
- Living with Stiff Person Syndrome (personal account): www.livingwithsps.com
- The Stiff Person Syndrome Research Foundation: stiffperson.org

GET CONNECTED ON IG LIVING.COM

Your complete resource for advocacy, education and support

IGLiving.com

Easy-to-navigate design

In-depth content on IG-treated diseases and treatment

Connect with our Patient Advocate, Abbie Cornett

Valuable resources and more

Follow us on social media:

IG Living Magazine

@iglivingmagazine

IG Living Magazine

@IGLivingMag

IG LIVING
44000 Winchester Road
Temecula, CA 92590-9760

PRSRT STD
US POSTAGE PAID
LEBANON JUNCION, KY
PERMIT NO. 714