

LIVING WITH PI*

Understanding PI and treatment with XEMBIFY



Please see Important Safety Information on pages 18 and 19 and refer to accompanying full Prescribing Information for XEMBIFY.

*PI, primary humoral immunodeficiency disease.

About PI	3
What are the symptoms of PI?	4
What causes PI?	5
Treatment options for PI	6
What is IG therapy?	7
XEMBIFY—A proven option for PI	8
How safe is XEMBIFY?	9
XEMBIFY—A subcutaneous IG replacement therapy that fits your lifestyle	10
Xembify Connexions offers dedicated support throughout treatment	14
Organizations to support you	16
Important Safety Information	18



About PI

What is PI?

PI stands for primary humoral immunodeficiency disease. There are more than 450 different kinds of PI.¹ With PI, part of your immune system, which is what protects you from infections and fights off diseases, is missing or doesn't function properly. As a result, your body can't protect you from germs as well as it should, so you are more likely to develop infections and be sick more often.

PI is usually inherited, which means it is carried through the genes from your parents. That means that PI is not contagious. If you have the disease, you might pass it along to your children, but you won't give it to anyone else.²

If you or someone you know has PI, you know how difficult it can be. But there is good news, too. There are FDA-approved treatment options* available, as well as lots of support. If you have PI, you are certainly not alone.

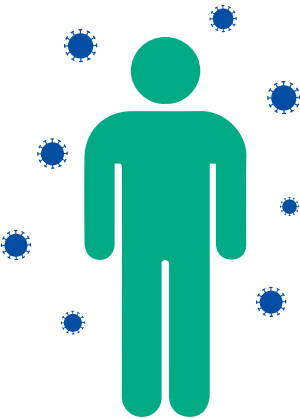
*FDA, Food and Drug Administration.

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What are the symptoms of PI?

The signs and symptoms of PI vary from person to person. If someone you know is experiencing any of the symptoms below, encourage them to talk to their doctor. Early detection of PI can help prevent long-term problems.

The most common symptoms^{1,3}



- Infections that occur more frequently and are more severe, longer lasting, and more difficult to cure when compared to people with healthy immune systems, such as sinus infections
- Getting sick with infections that a healthy immune system would normally be able to fight off, such as common colds
- Autoimmune problems, such as autoimmune lung or skin disease, which happen when the immune system attacks the body's own organs and tissues instead of attacking germs and disease-causing materials

What causes PI?

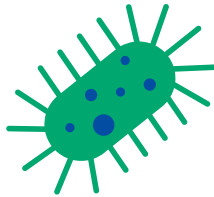
Overview of the immune system

The immune system is an incredible collection of cells, proteins, tissues, and organs that defends against a wide variety of germs every day.³

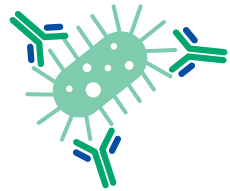
How does it work?



The body's immune system makes special proteins called **antibodies**



When the body detects a threat, like a **germ** that can make you sick, it responds by making these antibodies



Antibodies defend the body by attaching to the threat and signaling the body to destroy the germ

The immune system in people with PI⁴

Usually, the immune system does a great job protecting the body from threats. But in people who have PI, the immune system doesn't work properly. In some cases, the immune system may not work at all. As a result, germs are more likely to get through your body's defenses.

Treatment options for PI

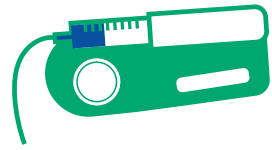
Treatment for PI is about helping your body fight infections to prevent severe illnesses and hospitalizations. It's also about protecting you from getting infections in the first place. There are treatments available, including³:



Over-the-counter drugs such as aspirin, decongestants, and/or expectorants to treat symptoms



Antibiotics to treat infections and to deal with a wide range of germs that have a greater impact on people with PI



Immune globulin (IG) replacement therapy that treats PI directly to help the immune system fight germs

 *In the following pages, we will take a closer look at IG therapy.*

What is IG therapy?

IG stands for immune globulin. It is comprised of proteins taken from human plasma and contains purified antibodies. Plasma is the liquid part of the blood that contains antibodies needed to keep the body healthy.

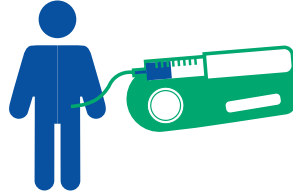
IG replacement therapy helps the immune system protect people with PI from germs and other threats. It can be given in 1 of 2 ways.

Two ways that IG therapy is given



Intravenous or IVIG

Infused through a vein, typically in the arm



Subcutaneous or SCIG

Infused just below the skin

If given by intravenous infusion, IG is given every 3 to 4 weeks; if given by subcutaneous infusion, it can be given daily to weekly, as desired. Also, while intravenous infusion is administered by a healthcare professional in a clinic or home, subcutaneous infusion can be self-administered conveniently at home.

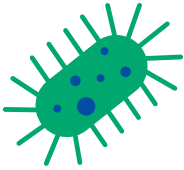
XEMBIFY is for subcutaneous use only.

XEMBIFY—A proven option for PI

Why XEMBIFY?

XEMBIFY is a subcutaneous IG replacement therapy used to treat PI in patients 2 years of age and older. It is formulated with no sugar and very low amounts of sodium.^{5,6} Therefore, it may even be suitable for people with diabetes and heart disease.⁷

In a clinical study, people taking XEMBIFY saw improvement in their symptoms of PI and the impact PI had on their lives:



0 serious bacterial
infections^{8*†‡}



Fewer than 3 days of
missed work/school
due to infections^{8†}



0 hospitalizations due to
infections^{8†‡}

*One patient reported sepsis due to an animal bite, an event deemed unrelated to the treatment (Sleasman 2019).

†Per patient-year.

‡Rate per patient-year 0.049.

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

How safe is XEMBIFY?

The most common side effects in a clinical study with PI patients who received XEMBIFY were⁸:

- Infusion-site reactions such as redness, pain, swelling, bruising, nodule or scab formation, itching, and firmness
- Cough and diarrhea

There was a low rate of headache. Only one patient in the study reported this side effect.

Tell your healthcare provider if you have or ever had:

- A serious reaction to other medicines that contain immune globulin
- An immunoglobulin A (IgA) deficiency
- A history of heart or blood vessel disease
- A higher risk of blood clots
- Inability to move over the course of a few hours

Tell your healthcare provider about any side effects that concern you.

**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.**



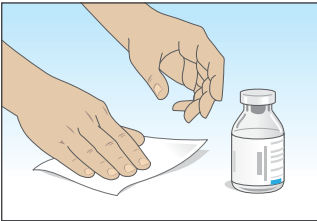
Let's take a look at steps for infusing XEMBIFY.

XEMBIFY—A subcutaneous IG replacement therapy that fits your lifestyle

XEMBIFY is given subcutaneously. After being trained by a healthcare professional, XEMBIFY may be self-administered at home. See below for detailed instructions on infusing XEMBIFY. Be sure to follow your healthcare provider's instructions on how much and how often you should infuse.

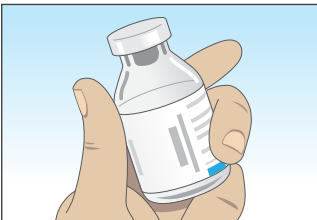
Before the infusion

Before you start your infusion, allow the vial of XEMBIFY to reach room temperature. This may take 60 minutes or longer. DO NOT apply heat to the vial(s) or place in the microwave; instead, let the vial(s) warm to room temperature naturally.



1. Use an alcohol wipe to disinfect surface to be used for your infusion. Allow the vial(s) of XEMBIFY to reach room temperature. Set up all of the supplies you will need. Wash and dry your hands thoroughly.

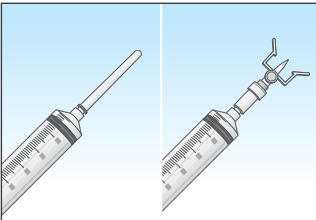
Infusing XEMBIFY



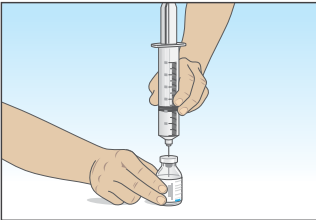
2. Check the vial of XEMBIFY. Confirm the name and expiration date. If the product is past the expiration date, if the liquid is cloudy or has particles, or if the vial shows any sign of tampering, do not use that vial. Contact your specialty pharmacy for guidance in that case.



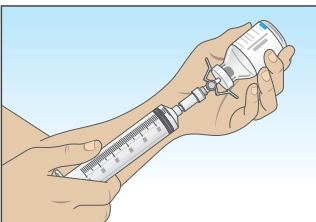
3. Remove the tamper-resistant seal and protective cap from the vial of XEMBIFY. Clean the rubber stopper with an alcohol wipe and allow to air dry.



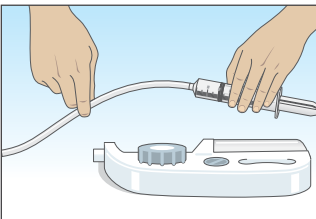
4. Draw XEMBIFY into the syringe using either a needle or a transfer device. If you are using a needle, refer to Step 5. If using a transfer device, refer to Step 6.



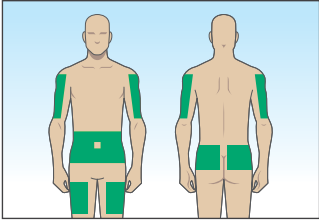
5. Attach the needle to the syringe tip and remove the cap. Pull the syringe plunger back to the level of XEMBIFY you want to withdraw. Place the vial on a flat surface, insert the needle and inject air. Turn the vial and syringe upside down. Make sure the needle is placed below the fluid level and withdraw XEMBIFY.



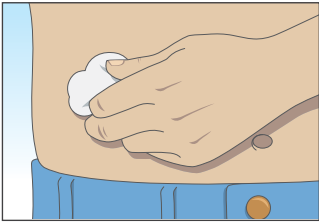
6. Uncap the transfer device and attach it to the syringe. Place the vial on a flat surface and insert the device into the top of the vial. Turn the vial and syringe upside down and withdraw the desired amount of XEMBIFY. Then, remove the syringe and transfer device.



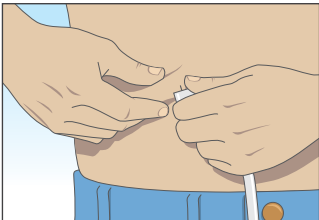
7. Follow the pump manufacturer's instructions to attach the infusion tubing and needle set to the syringe. Be sure to prime the administration tubing by filling it with XEMBIFY. Make sure the needle remains dry while priming.



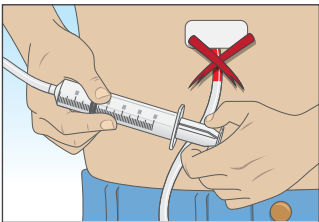
- 8.** XEMBIFY is infused in the abdomen, thigh, upper arm, sides, back, or hip. Select one or more infusion sites as directed by your healthcare provider. Be sure to choose sites that are different from your last infusion.



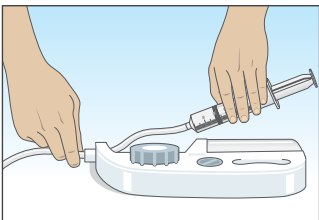
- 9.** Prepare the infusion site(s) by cleaning with an alcohol wipe. The sites should be clean, dry, at least 2 inches apart, and 2 inches away from the belly button. Do not use more than 6 infusion sites at the same time.



- 10.** Grasp the skin between 2 fingers and insert the needle into the subcutaneous tissue, which is the innermost layer of your skin. Secure needle with adhesive dressing. Repeat for other sites as needed.



- 11.** After securing the needle, make sure a blood vessel has not been entered. If you see blood when pulling back on the plunger, remove and discard the needle and tubing. Repeat steps 8-10 using a new needle, administration tubing, and a new infusion site.



- 12.** Follow the pump manufacturer's instructions to load the syringe and start the infusion. The infusion is complete when the syringe is empty. Use XEMBIFY within 2 hours of drawing up in a syringe to avoid the potential formation of particles caused by siliconized syringes.

After the infusion

- Wash your hands again
- Follow manufacturer's instructions to turn off the pump
- Undo and discard any dressing or tape
- Gently remove inserted needle(s)
- Discard used needles and tubing in a sharps container
- Store your supplies in a safe place
- Follow manufacturer's instructions to care for the infusion pump

Record the infusion

Record each infusion in your XEMBIFY Infusion Log Book by removing the peel-off label with the product lot number(s) and expiration date(s) from the XEMBIFY vial(s) and sticking this into your Infusion Log Book.

Be sure to record each infusion of XEMBIFY and remember to share your Log Book with the healthcare professional.

Xembify Connexions offers dedicated support throughout treatment



We understand that as a patient or caregiver you may have questions and concerns about the cost of therapy.

At Xembify Connexions, we're committed to helping you start and stay on therapy.

Dedicated savings and financial support

Copay support

- XEMBIFY offers copay assistance for eligible patients*
- With copay support, you may be eligible to pay as little as \$0 out of pocket
- Get help managing
 - » Deductibles
 - » Copayment
 - » Coinsurance

Patient assistance program

- You may be qualified to receive XEMBIFY at no cost, in the event that you lose insurance coverage

*Subject to terms and conditions. For more information, visit XEMBIFY.com.

A single, dedicated point of contact

We understand that having a strong support team behind you can help throughout your journey with PI and XEMBIFY treatment.

Coverage and resources partner

- Helps identify the best available benefits coverage for XEMBIFY
- Provides educational information and resources to address your healthcare needs

Ongoing support

- Answers questions about XEMBIFY, how it works, what to expect, and much more
- Provides information and support to help you manage your condition and make informed decisions about your treatment

**Call the Xembify Connexions team at 1-844-MYXEMBIFY
(1-844-699-3624) for support and financial needs
Monday through Friday 8 AM to 8 PM ET.**

Organizations to support you

Connecting you to resources and community

There are many organizations dedicated to helping people manage PI and learn more about the condition.

- **THE IMMUNE DEFICIENCY FOUNDATION (IDF)**
www.primaryimmune.org
- **THE JEFFREY MODELL FOUNDATION (JMF)**
www.info4pi.org
- **THE INTERNATIONAL PATIENT ORGANISATION FOR PRIMARY IMMUNODEFICIENCIES (IPOPI)**
www.ipopi.org
- **THE NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES (NIAID)**
www.niaid.nih.gov

To identify additional organizations available to support you, please contact 1-844-MYXEMBIFY (1-844-699-3624).

These websites are provided as a resource only and do not constitute an endorsement by Grifols of any particular content. Grifols does not review or control the content of non-Grifols websites.



Important Safety Information

What is XEMBIFY[®]?

XEMBIFY[®] (immune globulin subcutaneous human-klhw) is a 20% immune globulin used in the treatment of primary humoral immunodeficiency disease (PIDD) in patients 2 years of age and older. XEMBIFY is for subcutaneous administration only.

IMPORTANT SAFETY INFORMATION

WARNING: THROMBOSIS

- **Thrombosis (formation of blood clots within blood vessels) may occur with immune globulin products, including XEMBIFY. Before you take XEMBIFY, talk to your doctor if you:**
 - Are older
 - Are sedentary (need to lie down or sit down) for long periods of time
 - 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 don't have any risk factors**
- **If you are at risk of thrombosis, your doctor may prescribe XEMBIFY at the minimum dose and infusion rate. Make sure you drink plenty of fluid before taking XEMBIFY. Make sure your doctor is checking you regularly for signs and symptoms of thrombosis and is checking your blood viscosity if you are at risk of hyperviscosity**

Who should not use XEMBIFY?

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

What are possible serious side effects of XEMBIFY?

- **Hypersensitivity.** Severe allergic reactions may occur with immune globulin products, including XEMBIFY. If you have a severe allergic reaction, stop the infusion immediately and get medical attention. XEMBIFY contains IgA. If you have known antibodies to IgA, you may have a greater risk of developing potentially severe allergic reactions
- **Aseptic meningitis syndrome (AMS).** Aseptic meningitis is a non-infectious inflammation of the membranes that cover the brain. It causes a severe headache syndrome, which may occur with human immune globulin treatment, including XEMBIFY. If you are showing signs and symptoms of AMS, your doctor may conduct a thorough neurological evaluation including spinal tap (sampling fluid which surrounds the spinal cord) to rule out other causes of meningitis. Stopping human

immune globulin treatment has resulted in the end of signs and symptoms within several days. Treatment may include analgesics (pain medicines) and/or a special procedure known as a “blood patch” to stop headache

- **Kidney problems or failure.** Kidney problems or failure may occur with use of human immune globulin products, especially those containing sucrose (sugar). XEMBIFY does not contain sucrose. If you have kidney disease or diabetes 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
- **Hemolysis.** Your doctor should monitor you for symptoms of hemolysis (destruction of red blood cells causing anemia, or low red blood cell count). If your doctor suspects hemolysis, they should perform additional tests to confirm
- **Transfusion-related acute lung injury (TRALI).** TRALI is a rare but serious syndrome characterized by sudden acute respiratory distress following transfusion. If your doctor suspects TRALI, they will monitor you for any other lung issues. TRALI may be managed with oxygen therapy
- **Transmissible infectious agents.** Because XEMBIFY 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. No cases of transmission of viral diseases or CJD have been associated with the use of XEMBIFY
- **Interference with lab tests.** Because XEMBIFY contains a variety of antibodies, blood tests to determine antibody levels may be falsely elevated. Be sure to tell your doctor or lab technician that you are using XEMBIFY

What are other possible side effects of XEMBIFY?

- In clinical studies of XEMBIFY, some patients experienced local side effects (at the injection site) including pain, redness, puffiness, bruising, nodules, itching, firmness, scabbing and swelling at the site on the skin where the injection occurred. Some patients experienced non-injection-site side effects including cough and diarrhea.
- Use of XEMBIFY may interfere with the immune response to virus vaccines, such as vaccines for measles, mumps, rubella and varicella. Tell your doctor you are taking XEMBIFY before getting vaccinations

Please see accompanying full Prescribing Information for XEMBIFY.

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.



**To learn more about Xembify Connexions,
call 1-844-MYXEMBIFY (1-844-699-3624).**

References: **1.** What is PI? Immune Deficiency Foundation website. <https://primaryimmune.org/understanding-primary-immunodeficiency/what-is-pi>. Accessed November 17, 2023. **2.** Breaking down common terms in the immune deficiency space. Immune Deficiency Foundation website. <https://primaryimmune.org/resources/news-articles/breaking-down-common-terms-immune-deficiency-space>. Accessed November 17, 2023. **3.** Ballow M, Epland K, Heimall J, et al, eds. *Immune Deficiency Foundation Patient & Family Handbook for Primary Immunodeficiency Diseases*. 6th ed. Towson, MD: Immune Deficiency Foundation; 2019. **4.** Immune system and PI. Immune Deficiency Foundation website. <https://primaryimmune.org/understanding-primary-immunodeficiency/what-is-pi/immune-system-and-pi>. Accessed November 17, 2023. **5.** Data on file. **6.** Alonso W, Vandeberg P, Lang J, et al. Immune globulin subcutaneous, human 20% solution (Xembify®), a new high concentration immunoglobulin product for subcutaneous administration. *Biologicals*. 2020;64:34-40. **7.** Mozaffarian D. Dietary and policy priorities for cardiovascular disease, diabetes, and obesity: a comprehensive review. *Circulation*. 2016;133(2):187-225. **8.** Sleasman JW, Lumry WR, Hussain I, et al. Immune globulin subcutaneous, human - klhw 20% for primary humoral immunodeficiency: an open-label, Phase III study. *Immunotherapy*. 2019;11(16):1371-1386.

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