

# 10 FACTS ABOUT PLASMA PROTEIN THERAPIES

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## WHAT IS PLASMA?

PLASMA IS THE STRAW-COLORED LIQUID PORTION OF BLOOD comprised of water, salts, and proteins. 55 percent of the total blood volume is plasma. Due to its unique biological composition, it cannot be prepared synthetically.

**55%** OF TOTAL BLOOD VOLUME IS PLASMA

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## WHAT ARE PLASMA PROTEIN THERAPIES?

PLASMA PROTEIN THERAPIES ARE MEDICINES MADE FROM DONATED PLASMA. These therapies are used to treat a number of rare, chronic, conditions including primary immunodeficiencies, chronic inflammatory demyelinating polyneuropathy, hereditary angioedema, alpha-1 antitrypsin deficiency, and bleeding disorders such as hemophilia.



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## PROTEINS IN PLASMA

Plasma contains numerous proteins which are essential for proper functioning of the body. Some plasma proteins include:

- **ALPHA-1 PROTEINASE INHIBITOR** (protects the lungs)
- **C1 ESTERASE INHIBITOR** (helps regulate inflammation)
- **CLOTTING FACTORS** (control bleeding)
- **IMMUNOGLOBULINS/"ANTIBODIES"** (control the immune system and prevent illness)

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## HOW IS PLASMA COLLECTED?

IN MORE THAN 650 SPECIALIZED DONATION CENTERS LOCATED IN THE U.S. AND EUROPE, individuals may donate plasma through a process called plasmapheresis. Plasmapheresis is a sterile, self-contained, automated process which separates plasma from other cellular components, which are then returned to the donor.

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## PLASMA PROTEIN THERAPIES & THE CONDITIONS THEY TREAT

If a person has insufficient levels of any one plasma protein, his or her body cannot carry out vital functions, causing a variety of chronic and life-threatening medical conditions.

PLASMA PROTEIN THERAPY	CONDITIONS TREATED
<b>ALPHA-1 PROTEINASE INHIBITOR</b>	<b>ALPHA-1 ANTITRYPSIN DEFICIENCY</b> Patients have chronic emphysema and liver damage.
<b>C1 ESTERASE INHIBITOR (C1-INH)</b>	<b>HEREDITARY ANGIOEDEMA</b> Patients experience severe swelling; can be fatal if airway is obstructed.
<b>COAGULATION FACTORS</b>	<b>BLEEDING DISORDERS (E.G., HEMOPHILIA)</b> Patients cannot regulate bleeding; can be fatal if bleeding occurs in brain or vital organs.
<b>IMMUNOGLOBULINS (ANTIBODIES)</b>	<b>PRIMARY IMMUNODEFICIENCY DISEASES</b> Patients are chronically ill from severe, persistent, recurrent infections  <b>CHRONIC INFLAMMATORY DEMYELINATING POLYNEUROPATHY</b> Patients experience progressive weakness, loss of limb function, and disability

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## DONATIONS NEEDED TO TREAT ONE PATIENT FOR ONE YEAR\*

130: 

PRIMARY IMMUNODEFICIENCY DISEASE

900: 

ALPHA-1 ANTITRYPSIN DEFICIENCY

1200: 

HEMOPHILIA A

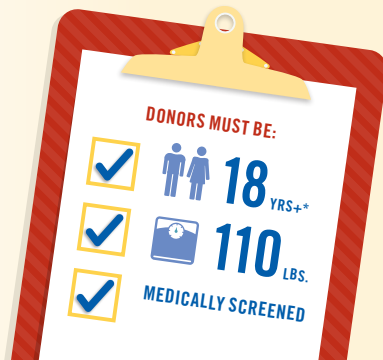
\*Based on 150 lb. adult treated for one year.

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## HOW DO YOU BECOME A QUALIFIED DONOR?

In order to receive Qualified Donor status, a prospective donor must undergo two satisfactory health screenings and negative test results within six months. **UNTIL YOU MEET THIS REQUIREMENT, YOUR PLASMA WILL NOT BE USED TO MANUFACTURE THERAPIES.** This policy is important to help ensure the quality and safety of the therapies that patients need to treat life-threatening diseases.

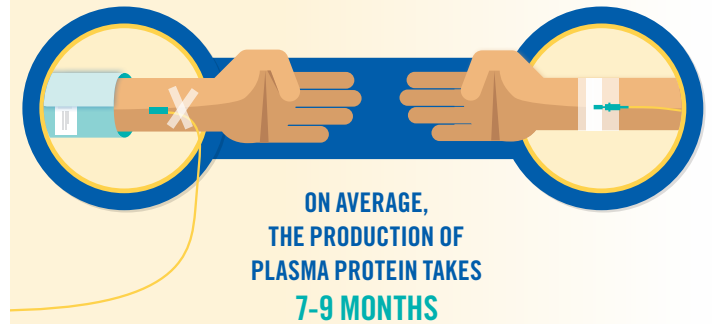
\*Age may vary by state or country



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## HOW LONG DOES PLASMA PROTEIN PRODUCTION TAKE?


The process to manufacture plasma protein therapies is lengthy because several complex steps must be taken to ensure products are safe and effective.



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## HOW IS PLASMA USED IN EVERYDAY MEDICINE?

In addition to helping those with rare, chronic diseases, plasma protein therapies are also used in everyday medicine, emergencies, and surgical medicine to treat the following:

-  ANIMAL BITES
-  BURNS
-  CARDIOPULMONARY ISSUES
-  HEPATITIS
-  LIVER CONDITIONS
-  MAJOR SURGERY
-  ORGAN TRANSPLANTS
-  PEDIATRIC HIV
-  RH INCOMPATIBILITY
-  SHOCK
-  TRAUMA

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## PPTA & PLASMA

The Plasma Protein Therapeutics Association is the global trade association that represents the private sector manufacturers of plasma protein therapies, as well as plasma donation centers. The mission of the PPTA is to promote the availability of and access to safe and effective plasma protein therapies for all patients in the world.