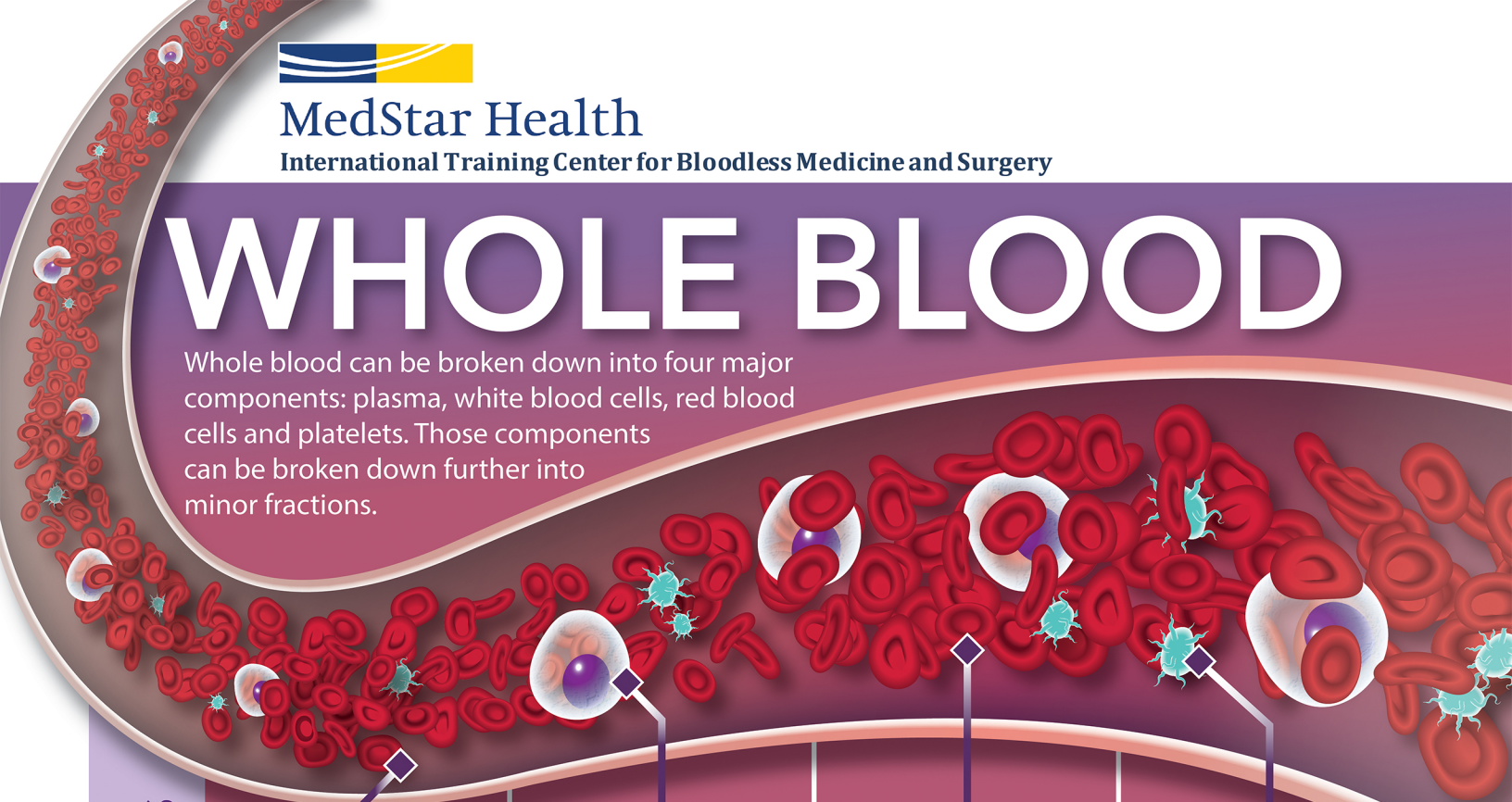




WHOLE BLOOD

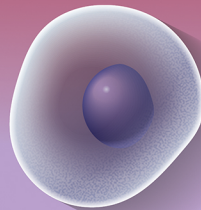
Whole blood can be broken down into four major components: plasma, white blood cells, red blood cells and platelets. Those components can be broken down further into minor fractions.



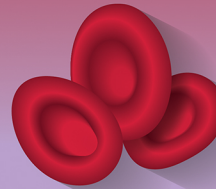
MAJOR COMPONENTS



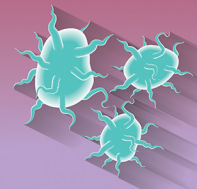
Plasma



White Blood Cells



Red Blood Cells



Platelets

MINOR FRACTIONS

- Albumin
- Clotting Factors
- Immunoglobulins

- Interferons
- Interleukins

- Hemoglobin
- Hemin

None Currently Available

PRODUCTS THAT CONTAIN PLASMA FRACTIONS

- Erythropoietin
- Streptokinase
- Colony Stimulating Factors
- Synthetic Interleukins
- Synthetic Interferons
- Cryoprecipitate
- Prothrombin Complex Concentrate (PCC)
- Tissue Adhesives/ Sealants
- Platelet Gel (made with own platelets)

PRODUCTS THAT CONTAIN RED BLOOD CELL FRACTIONS

- Hemoglobin-Based Oxygen Carriers (not widely available)
- Normosang
- Panhematin

*Talk with your doctor about the potential risks and possible side effects of minor fractions, as well as what your other options may be.



Plasma Fractions



Albumin

Albumin is a protein made in the liver that flows through the body in plasma, which is the colorless fluid part of blood. Albumin helps keep blood volume in a normal range. It can be separated from plasma and used as a treatment to increase volume before or after surgery if needed. Products that may contain albumin: erythropoietin, streptokinase, colony stimulating factors and interleukins.

Clotting Factors

Clotting factors are a group of proteins that flow in blood plasma. They can be separated from plasma and used to help stop bleeding in patients who bleed easily. Products that contain clotting factors: cryoprecipitate (contains fibrinogen, von Willebrand factor, factor VIII, factor XIII), prothrombin complex concentrate (PCC).

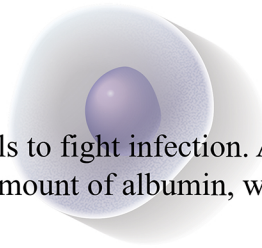
Immunoglobulins (or Immune Globulins)

Immunoglobulins are a special group of proteins found in blood plasma. Also called antibodies, they are separated from pooled plasma and used in medicine that helps fight viruses and bacteria. Example: RhoGam.

White Blood Cell Fractions

Interferons

Interferons are proteins made by white blood cells to fight infection. As medicine, interferons are often synthetic (man-made) and may contain a small amount of albumin, which is a plasma fraction.



Interleukins

Interleukins are proteins made by white blood cells to help cells communicate with each other. As medicine, interleukins are often synthetic (man-made) and may contain a small amount of albumin, which is a plasma fraction.

Red Blood Cell Fractions

Hemoglobin

Hemoglobin is a protein in red blood cells that carries oxygen. Hemoglobin can be separated from red blood cells to make Hemoglobin-Based Oxygen Carriers (HBOCs), which are blood substitutes. HBOCs are not currently widely available.



Hemin

Hemin is a salt that blocks the production of substances called porphyrins. Hemin can be separated from red blood cells and used to treat a condition called Porphyria..

Platelet Fractions

None Currently Available

