

platelet function disorders

what are platelets?

Your blood is made up of multiple types of cells. Platelets are the smallest blood cells. Platelets are shaped like discs (plates). The platelets come together to form clots. Clots stop bleeding.

Platelets have multiple functions:

- Adhesion: Platelets attach (adhere) to the lining of an injured blood vessel to begin the clotting process.
- Aggregation: Platelets begin to clump (aggregate) to form a platelet plug at the injured site of the blood vessel.
- Activation and secretion: Granules inside of the tiny platelets function to store and release proteins that help with forming the clump (aggregation) at the injured site of the blood vessel.

what are platelet disorders?

Platelet disorders are disorders where the platelets do not function properly to stop bleeding. There are a few different types of platelet disorders.

1. Platelet Storage Pool Disorders: The platelet granules aren't able to activate and secrete the proteins that help with aggregation. These are most common type. They can be hereditary (passed down from parents), or acquired.
2. Bernard-Soulier Syndrome: These patients are missing a glycoprotein that helps platelets adhere correctly. Very rare.
3. Glanzmann's Thrombasthenia: There is an abnormality in the process of blood clotting that causes platelets not to clump together properly.

what causes platelet function disorders?

- Inherited platelet function disorders can be caused by a genetic change. They can occur in either males or females.
- Taking medicines such as ibuprofen or aspirin
- Having liver or kidney disease

what are the symptoms of platelet function disorders?

- Frequent and long-lasting nosebleeds
- Gum bleeding
- Long-lasting bleeding after surgery or dental procedures
- Easy bruising
- Heavy menstrual periods
- Postpartum bleeding

how do we diagnose platelet function disorders?

- Collect a thorough family bleeding history
- Collect a thorough patient bleeding history
- Series of blood tests that look at platelet count as well as all three functions of the platelets.

how do we treat platelet function disorders?

Regular treatment is usually not necessary for platelet function disorders, unless you are having surgery or are injured.

If you are having surgery, infusions to help strengthen your blood's ability to clot may be given before, during and after surgery. Platelet transfusions may also be used for those with more severe platelet disorders.

what should patients with platelet function disorders avoid?

- Nonsteroidal anti-inflammatory drugs (NSAIDs): these include ibuprofen (Motrin and Advil), aspirin, and naproxen sodium (Aleve)
- High risk activities/sports that can lead to trauma and severe bleeding such as football, ice hockey, boxing, lacrosse and wrestling.

what can I do to decrease the symptoms of a platelet function disorder?

- Good oral hygiene cuts down on bleeding from your mouth and gums. See a dentist regularly and brush and floss.
- Avoid medications and supplements that increase bleeding
- Wear helmets and other protective equipment when biking, on a scooter or skateboard.
- Engage in regular, safe physical activity to keep muscles and joints healthy.
- Wear a seatbelt when in a motor vehicle.

Call our office at 937-641-3111 ahead of time if you are scheduled for dental or surgical procedures. We can coordinate care and infusions with the provider.

