

## What is a Bleeding Disorder?

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Bleeding disorders is a general term for a wide range of medical problems that lead to poor blood clotting and continuous bleeding. Doctors also call them terms such as coagulopathy, abnormal bleeding and clotting disorders.

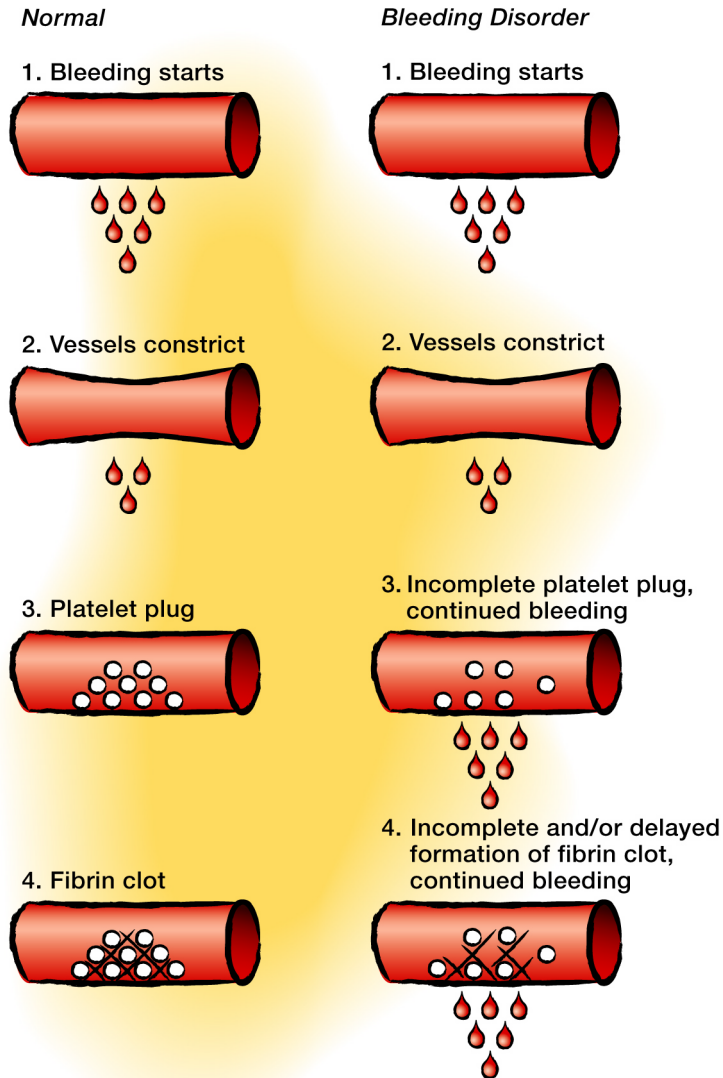
When someone has a bleeding disorder they have a tendency to bleed longer. The disorders can result from defects in the blood vessels or from abnormalities in the blood itself. The abnormalities may be in blood clotting factors or in platelets.

Blood clotting, or coagulation, is the process that controls bleeding. It changes blood from a liquid to a solid. It is a complex process involving as many as 20 different plasma proteins, or blood clotting factors. Normally, a complex chemical process takes place using these clotting factors to form a substance called fibrin that stops bleeding. When certain coagulation factors are deficient or missing, the process does not happen normally.

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**This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.**

# how clotting works



*Adapted and used with permission from **The National Hemophilia Foundation***

Within seconds of an injury, tiny cells in the blood, called platelets, bunch together around the wound. Blood proteins, platelets, calcium and other tissue factors react together and form what's called a clot, which acts like a net over the wound. Over the next several days to weeks, the clot strengthens, and then dissolves when the wound is healed.

In people with bleeding disorders, clotting factors are missing or do not work as they should. This causes them to bleed for a longer time than those whose blood factor levels are normal. It is not true that persons with bleeding disorders bleed to death from minor injuries or their blood flows faster. Bleeding problems can range from mild to severe.

**What is a Bleeding Disorder?**

## **Symptoms include:**

- Excessive bleeding
- Excessive bruising
- Easy bleeding
- Nose bleeds
- Abnormal menstrual bleeding

## **Bleeding disorder risks include:**

- Scarring of the joints or joint disease
- Vision loss from bleeding into the eye
- Chronic anemia (low red blood cell count) from blood loss
- Neurologic or psychiatric problems
- Death, which may happen with large amounts of blood loss or bleeding in critical areas, such as the brain.

## **Causes**

Some bleeding disorders are present at birth and are caused by rare inherited disorders. Others may be caused by certain illnesses (such as vitamin K deficiency, severe liver disease), or treatments (such as use of anticoagulant drugs or prolonged use of antibiotics). The causes of bleeding disorders, may include:

- Hemophilia
- von Willebrand disease, which is an inherited blood disorder, that affects between 1% and 2% of the population
- Immune system-related diseases, such as allergic reactions to medicines, or reactions to an infection
- Cancer, such as leukemia, which is a blood cancer
- Liver disease
- Bone marrow problems
- Disseminated intravascular coagulation, which is a condition often associated with child bearing, cancer, or infection, is when the body's clotting system does not work properly

**What is a Bleeding Disorder?**

- Pregnancy-associated eclampsia, also known as severe toxicity of pregnancy
- Antibodies, a type of immune system protein, that destroy blood clotting factors
- Medicines, such as aspirin, heparin, warfarin, and drugs used to break up blood clots

Bleeding disorders that are present at birth (congenital) are very rare, with the exception of hemophilia and von Willebrand disease.