CONDITION

Bleeding disorders

Bleeding disorders are conditions that make blood clot too slowly or improperly.

WHAT IT IS
Conditions that impair normal blood clotting

BODY SYSTEM
Blood and circulation

MAIN SYMPTOMS
Easy bruising, prolonged bleeding, nosebleeds, heavy periods

WHAT CAUSES IT
Inherited changes, illness, medicines, or vitamin deficiency

HOW IT IS DIAGNOSED
Bleeding history, blood counts, clotting and factor tests

MAIN TREATMENT
Clotting replacement, medicines, and bleeding prevention

CAN IT BE CURED?
Sometimes - acquired causes may be reversible

IS IT AN EMERGENCY?
Sometimes - uncontrolled bleeding or possible internal bleeding

LONG-TERM OUTLOOK
Usually manageable with specialist care and treatment

Overview

Bleeding disorders are a group of conditions that interfere with blood clotting. Clotting is the body's way of sealing an injured blood vessel. It relies on blood cells called platelets and proteins called clotting factors.

If platelets or clotting factors are missing, reduced, or not working properly, bleeding may last longer than expected. Bleeding can happen after an injury, dental work, surgery, or childbirth. Some people also bleed without an obvious cause.

Bleeding disorders range from mild to severe. A mild condition may only become clear after surgery or a major injury. A severe condition can cause frequent bleeding into joints, muscles, or internal organs.

Common inherited bleeding disorders include:

Other bleeding disorders develop later because of an illness, a nutritional deficiency, or a medicine. Finding the specific cause matters because treatment differs between conditions.

- Von Willebrand disease , caused by too little or poorly functioning von Willebrand factor
- Hemophilia A , involving clotting factor VIII
- Hemophilia B , involving clotting factor IX
- Inherited platelet disorders , in which platelets are too few or do not work normally

Symptoms

Symptoms depend on which part of the clotting process is affected and how severe the condition is.

Possible symptoms include:

Bleeding into a joint may cause warmth, pain, swelling, stiffness, or reduced movement. It most often affects the knees, ankles, or elbows. Repeated joint bleeding can cause lasting damage.

Babies with a severe inherited disorder may bleed after circumcision, injections, or heel-prick testing. Unexplained bruising may appear as they begin crawling or walking. However, bruising is common in active children and does not by itself establish a bleeding disorder.

Heavy menstrual bleeding may mean bleeding for longer than seven days, needing to change menstrual products very often, passing large blood clots, or developing iron-deficiency anemia. Anemia means there are not enough healthy red blood cells to carry oxygen. It can cause tiredness, weakness, breathlessness, headaches, or pale skin.

- Bruising easily or developing unusually large bruises
- Frequent or prolonged nosebleeds
- Bleeding from the gums
- Bleeding that is difficult to stop after a cut
- Prolonged bleeding after dental work, surgery, or childbirth
- Heavy or long menstrual periods
- Blood in urine or stool
- Bleeding into muscles or joints

Causes and risk factors

Some bleeding disorders are inherited. This means a gene change is passed through a family, although a person may be the first known family member diagnosed.

Hemophilia A and B usually involve changes in genes on the X chromosome. They are more commonly severe in males, but females who carry the gene change can also have low clotting-factor levels and significant bleeding.

Von Willebrand disease can affect people of any sex. Several forms exist, ranging from mild reductions in von Willebrand factor to rare, severe deficiencies.

A bleeding disorder can also be acquired later in life. Possible causes include:

Anticoagulants like warfarin or apixaban reduce the action of clotting proteins, while antiplatelet medicines make platelets less sticky. These effects may be intended to prevent harmful blood clots, but they can increase bleeding. Some pain medicines, including aspirin and certain anti-inflammatory medicines, can also affect platelets.

Taking one of these medicines does not necessarily mean you have a bleeding disorder. Do not stop a prescribed medicine without medical advice, because doing so could increase the risk of a heart attack, stroke, or another harmful clot.

- Liver disease, because the liver makes many clotting factors
- Severe kidney disease, which can affect platelet function
- Vitamin K deficiency
- Bone marrow conditions that reduce platelet production
- Immune conditions that destroy platelets or clotting factors
- Some cancers or severe infections
- Complications of pregnancy or childbirth
- Medicines that reduce clotting

Diagnosis

Diagnosis begins with a detailed bleeding history. A healthcare professional may ask about nosebleeds, bruising, menstrual bleeding, previous operations, dental treatment, childbirth, medicines, and bleeding in relatives.

The pattern provides useful clues. Bleeding into joints and muscles can point toward a clotting-factor deficiency. Nosebleeds, gum bleeding, and heavy periods are often seen with platelet or von Willebrand factor problems. These patterns can overlap.

Initial blood tests may include:

Normal screening tests do not rule out every bleeding disorder. Von Willebrand disease and some platelet disorders can be present even when PT and aPTT results are normal.

Further testing may measure individual clotting factors, von Willebrand factor amount and activity, or platelet function. Some tests need to be repeated because results can change with stress, pregnancy, inflammation, hormones, or recent exercise. Genetic testing can support the diagnosis of certain inherited conditions and may help with family planning, but it is not required in every case.

A hematologist, a doctor who specializes in blood conditions, may oversee testing when symptoms or initial results suggest a bleeding disorder.

- A complete blood count to measure platelets and check for anemia
- Prothrombin time, or PT, which assesses part of the clotting process
- Activated partial thromboplastin time, or aPTT, which assesses another part
- Tests of liver and kidney function

Treatment and management

Treatment is based on the exact disorder, its severity, the type of bleeding, and the procedure or activity involved. Some people need treatment only before surgery or after an injury. Others use regular preventive treatment.

Clotting-factor concentrates replace a missing or reduced factor. They are central treatments for many people with hemophilia and some severe forms of von Willebrand disease. Certain products replace von Willebrand factor as well as factor VIII.

Desmopressin is a medicine that can temporarily raise the body's levels of von Willebrand factor and factor VIII in some people. It does not work for every type of bleeding disorder, so its use usually follows specific testing and planning.

Antifibrinolytic medicines, such as tranexamic acid, help stop clots from breaking down too quickly. They may be used for bleeding from the mouth or nose, heavy periods, and some dental procedures.

Other management options include:

People taking anticoagulants may need the medicine paused, adjusted, or reversed during significant bleeding. These decisions require medical assessment because reducing anticoagulation can allow harmful blood clots to form.

Before dental work, surgery, or childbirth, a written plan may be developed with the relevant team. It may include laboratory checks, preventive treatment, and instructions for monitoring

afterward.

- Medicines that mimic or support clotting-factor activity
- Hormonal treatment for heavy menstrual bleeding
- Iron replacement for iron deficiency
- Platelet transfusions for selected platelet disorders or serious bleeding
- Vitamin K when a confirmed deficiency is contributing
- Treatment of an underlying liver, immune, or bone marrow condition

Complications

Ongoing blood loss can cause iron deficiency and anemia. This is especially important for people with heavy periods, frequent nosebleeds, or hidden bleeding from the digestive tract.

Repeated bleeding into joints can damage cartilage and lead to long-term pain, stiffness, and reduced movement. Early treatment of joint bleeding and appropriate physical therapy can help protect joint function.

A large muscle bleed can press on nerves or blood vessels. Internal bleeding can also occur in the abdomen, digestive tract, urinary tract, or brain. Brain bleeding is uncommon but serious.

Blood-borne infections were historically transmitted through some plasma-derived treatments. Modern donor screening, viral testing, manufacturing methods, and non-plasma treatments have greatly reduced this risk in many countries.

Some people develop inhibitors, which are antibodies that block replacement clotting factor. This can make usual factor treatment less effective and requires specialist management.

Bleeding symptoms can also affect school, work, sport, sexual health, pregnancy planning, and emotional well-being. Support from a specialist bleeding-disorder service can help address these practical effects.

Prevention

Inherited bleeding disorders cannot currently be prevented. They are caused by gene changes rather than anything a person did during pregnancy or childhood.

Genetic counseling can explain inheritance, testing choices, and reproductive options. It does not tell you what decision to make.

Although the condition itself may not be preventable, some bleeding episodes and

complications can be reduced. This may involve following a treatment plan, attending monitoring appointments, protecting joint health, and planning ahead for procedures.

Tell dentists, surgeons, pharmacists, and other healthcare professionals about a diagnosed bleeding disorder. Carrying a medical alert card or identification can be useful in an emergency.

Avoid starting aspirin, anti-inflammatory pain medicines, supplements, or herbal remedies without checking whether they could affect bleeding. Do not avoid exercise altogether. Regular activity can strengthen muscles and support joints, but the safest activities depend on the condition and its severity.

Living with it and what to expect

The long-term course differs between disorders. A mild inherited condition may remain stable for life and need treatment only around procedures, injuries, or childbirth. A severe disorder may require regular preventive treatment and ongoing specialist care.

Inherited conditions do not usually disappear. However, modern treatments allow many people with hemophilia, von Willebrand disease, and other bleeding disorders to attend school, work, travel, exercise, and have families.

For some acquired disorders, bleeding improves when the underlying cause is treated or a contributing medicine is changed. Other acquired conditions need longer-term monitoring.

Regular follow-up may include reviewing bleeding episodes, checking blood counts and iron levels, assessing joints, and updating plans for dental care, surgery, pregnancy, or travel. Children need treatment plans reviewed as they grow and become more active.

Keep a record of unusual bleeding, treatment used, and how well it worked. If you have a confirmed factor deficiency, knowing the condition's name and severity can help emergency teams choose suitable care.

Periods of increased bleeding do not always mean the condition has permanently worsened. Illness, medicines, hormonal changes, pregnancy, and procedures can temporarily alter bleeding. New or changing symptoms still deserve assessment.

When to get medical help

Seek emergency care for:

Use your local emergency number if these symptoms are severe. If you have an emergency treatment plan, follow it while arranging help.

Contact a healthcare professional promptly for repeated nosebleeds, unexplained large bruises, blood in urine or stool, a painful swollen joint, or bleeding after a procedure. Heavy menstrual bleeding that causes dizziness, breathlessness, marked weakness, or very frequent product changes also needs prompt assessment.

Routine follow-up is appropriate for reviewing stable symptoms, treatment supplies, iron levels, planned procedures, contraception, pregnancy planning, or safe activities. Do not wait for a routine appointment if bleeding is active or symptoms suggest internal bleeding.

- Bleeding that is heavy, rapidly worsening, or will not stop
- A significant head injury, especially with a known bleeding disorder
- A sudden severe headache, confusion, fainting, weakness, seizure, or repeated vomiting
- Vomiting blood, coughing up blood, or passing black, tar-like stool
- Severe abdominal, back, neck, or groin pain with swelling or weakness
- Trouble breathing, chest pain, or signs of shock such as cold, clammy skin

Common questions

Do easy bruises mean I have a bleeding disorder?

Not necessarily. Bruising can follow unnoticed bumps, aging, medicines, or fragile skin. Bruises are more concerning when they are very large, frequent, unexplained, or accompanied by nosebleeds, heavy periods, prolonged bleeding, or a family history.

Can a bleeding disorder appear later in life?

Yes. Liver or kidney disease, immune problems, vitamin deficiency, cancer, pregnancy complications, and some medicines can cause acquired bleeding problems. A person can also have a mild inherited disorder that is not recognized until surgery, childbirth, or a major injury.

Can women and girls have hemophilia?

Yes. Hemophilia is more often severe in males because of how it is inherited, but females can have reduced factor levels and clinically important bleeding. Their symptoms should not be dismissed as simply being a carrier.

Can I exercise with a bleeding disorder?

Many people can and should stay active. Exercise supports muscles, bones, balance, and joint health. Lower-impact activities may be preferred for some severe disorders, while others have few restrictions. Planning should reflect your diagnosis, bleeding history, treatment access, and chosen activity.

Will I need treatment for the rest of my life?

Some inherited disorders need lifelong monitoring, but treatment frequency differs. You may need regular preventive therapy, treatment only for bleeding, or cover around procedures. Acquired bleeding may improve if its cause is reversible.

Is heavy menstrual bleeding a sign of a bleeding disorder?

It can be. Heavy periods are common and have several possible causes, but they may be the main symptom of von Willebrand disease or a platelet disorder. Assessment is particularly important if heavy periods began with the first menstrual cycles or occur with other bleeding symptoms.

Sources

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