

DIC · Disseminated Intravascular Coagulation

A plain-English guide for you and your family

WHAT IS HAPPENING

Your blood normally clots only where you need it—like a cut on your finger. A clot forms, seals the leak, then your body breaks it down when the job is done. Special brake proteins (protein C and antithrombin) keep clotting from spreading beyond that one spot. In DIC, something big—like a severe infection (sepsis), major injury, cancer, a pregnancy emergency (placental tear, amniotic fluid leak, severe preeclampsia), sudden severe pancreatitis, a bad blood transfusion reaction, or even a snake bite—flips the clotting switch on everywhere at once. The brake proteins cannot keep up. Tiny clots form in small blood vessels throughout your organs: kidneys, lungs, brain, liver. This traps and uses up all your clotting supplies—platelets and fibrinogen—faster than your liver can make new ones. Blood tests show low platelets, low fibrinogen, slow clotting times, and high D-dimer (a marker that clots are breaking down). The result is backwards: you bleed from needle sticks and ooze from your gums while clots silently clog vessels inside. Organs starve for oxygen because those tiny clots block blood flow. None of this is random. The body is trying to seal leaks and keep blood pressure up, but the system is broken. DIC is not the disease—it is your body's response gone wrong. The real job is to find and fix the trigger (treat the infection, stop the bleeding, remove the cancer) or the clotting spiral continues and organs fail.

What you might feel

- Bleeding from many places at once (gums, nose, IV sites, under the skin, in urine or stool)
- Purple or red bruises and spots on the skin (petechiae and purple bleeding blotches (purpura))
- Blood clots forming in small blood vessels (causing fingers, toes, or organs to stop working right)
- Confusion, trouble thinking clearly, or passing out
- Trouble breathing or fast breathing
- Very little or no urine coming out

- Belly pain or signs of organ damage (liver, intestines)
- Blood oozing slowly and continuously from wounds or surgical cuts that won't stop

Call the doctor right away if...

- Bleeding that won't stop from multiple sites at the same time
- Sudden confusion, seizure, or loss of consciousness
- Trouble breathing or very low oxygen levels
- No urine output or very dark urine
- Severe belly pain or signs of shock (fast heart rate, low blood pressure, cold and sweaty skin)

What the care team will do

- Stop any active bleeding by applying direct pressure to bleeding sites and avoid any needle sticks, injections, or procedures unless absolutely life-saving.
- Monitor for signs of shock every 15 minutes: check blood pressure, heart rate, skin temperature and color, capillary refill, and level of consciousness.
- Measure and record all blood loss from every site including IV sites, gums, nose, urine, stool, and drains; save any blood-soaked dressings or pads for the provider to see.
- Watch closely for new bleeding in dangerous places: check pupils and neurological status every hour for brain bleeding, listen to lung sounds for chest bleeding, and palpate the abdomen for swelling or pain from belly bleeding.
- Measure urine output every hour and report if less than 30 milliliters per hour or if urine is dark, bloody, or stops completely.
- Protect the patient from any new injury: keep bed rails padded, use electric razors only, use soft toothbrushes or mouth swabs, and do not take rectal temperatures or insert rectal tubes.
- Administer blood products exactly as ordered: fresh frozen plasma for clotting factors, platelet transfusions, cryoprecipitate for fibrinogen (a specific clotting protein), and packed red blood cells for severe anemia from blood loss.
- Monitor oxygen levels continuously with pulse oximetry and watch for trouble breathing, fast breathing, or blue lips and fingers.

Medicines you may be given — and why

Platelet transfusion

Gives the body fresh platelets (tiny cell pieces that plug holes in blood vessels) when your own platelets have been used up. In DIC, clots form everywhere at once and burn through all your platelets, so bleeding starts. Fresh platelets let wounds close again.

Fresh frozen plasma (FFP)

Replaces clotting factors (proteins the liver makes that work in a chain reaction to form clots). In DIC these factors are consumed by constant clotting, so bleeding can't stop. FFP refills all the factors at once so the clotting steps can work again.

Cryoprecipitate

Delivers concentrated fibrinogen (a sticky protein that forms the mesh of a clot) plus Factor VIII and von Willebrand factor. In DIC, fibrinogen is consumed faster than the liver can make it, so clots fall apart. Cryoprecipitate quickly raises fibrinogen so clots can hold together.

Unfractionated heparin (low dose)

Blocks a clotting protein called thrombin so new clots stop forming. Used ONLY in certain DIC cases (mainly some cancers) where clotting is the main problem and bleeding is mild or absent. It tries to interrupt the clotting storm without making bleeding worse.

Tranexamic acid (TXA)

Stops the body from breaking down clots too quickly by blocking plasmin (an enzyme that dissolves fibrin). In some bleeding conditions TXA is helpful, but in DIC it is usually NOT recommended because it can trap clots in tiny vessels and worsen organ damage.

Recombinant activated protein C and antithrombin concentrates

These are lab-made versions of proteins your body uses to slow clotting. The idea was to refill these natural brakes in DIC. However, large studies showed they do not improve survival and may increase bleeding, so they are NOT recommended for routine use in DIC.

Where this information comes from

- International Society on Thrombosis and Haemostasis (ISTH) DIC guideline
- British Committee for Standards in Haematology (BCSH) 2009 DIC guideline
- American Society of Hematology (ASH)
- New England Journal of Medicine (NEJM) clinical review

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