

MANAGING YOUR DISSEMINATED INTRAVASCULAR

COAGULATION

What Is Disseminated Intravascular Coagulation (DIC)?

Coagulation (clotting) involves proteins, platelets, and cells lining the walls of blood vessels (endothelial cells). Platelets are blood components that help blood clot. Stimulation of the proteins involved in blood coagulation, such as by injury or illness, causes the protein prothrombin to be changed into another protein, an enzyme named thrombin. Thrombin is the key to clotting. Diseases can change the normal balance between blood clotting and thinning (anticoagulation).

DIC is a serious disorder in which proteins that help clotting are activated throughout the body. Small blood clots form in tiny blood vessels and can cut off the blood supply to organs. These organs stop working and in time, clotting proteins are used up, so bleeding can occur from even small injuries. Damage to red blood cells and low platelet counts may occur. DIC can lead to thrombosis (too much clotting) or, more likely, hemorrhage (bleeding). DIC isn't actually an illness but is instead a complication or effect of other illnesses.

What Causes DIC?

Causes include many different disorders, such as severe infections (e.g., sepsis), malignancies, trauma, liver failure, and some obstetric problems.

What Are the Symptoms of DIC?

Bleeding occurs at different places in the body, such as the digestive tract, lungs, and urinary tract. Other symptoms are low blood pressure, coughing, breathing problems, fever, bruising, and confusion. Oozing from places where blood is drawn may occur. Severe DIC causes very low

blood pressure (shock). DIC-related bleeding after surgery or childbirth may be uncontrollable. DIC that starts slowly, as in some people with cancer, causes clotting more than bleeding.

How Is DIC Diagnosed?

The health care provider makes a diagnosis from symptoms and laboratory blood tests. Broken, very small, and damaged red blood cells, and fewer platelets can be found on a blood smear.

Coagulation tests include prothrombin time (PT), partial thromboplastin time (PTT), and thrombin time. Levels of coagulation proteins are checked.

How Is DIC Treated?

The underlying condition must be treated. People with DIC are quite ill and are usually admitted to the hospital. DIC that starts suddenly is life-threatening. Blood products such as packed red blood cells, platelets, and clotting factors are replaced. Plasma transfusions may provide clotting factors. Heparin (an anticoagulant drug that inhibits the coagulation factors) or other anticoagulants may be useful in some cases. Hematologists (specialists in blood diseases), transfusion specialists, or critical care doctors may be involved in your care.

DOs and DON'Ts in Managing DIC

- ✓ **DO** follow any special diet if your underlying condition requires it.
- ✓ **DO** exercise if you can, once your general condition improves.
- ✓ **DO** call your health care provider if you start bleeding from the nose or gums, see bloody urine, or find black-and-blue spots on your skin.
- ✓ **DO** go to the hospital emergency department or call 911 if your bleeding won't stop.

⊗ **DON'T** take medicines such as aspirin or nonsteroidal antiinflammatory drugs

(NSAIDs) without your doctor's ok. They can increase the bleeding tendency.

⊗ **DON'T** exercise until your condition improves.

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FOR MORE INFORMATION

Contact the following source:

- National Heart, Lung, and Blood Institute Information Center: Tel: (301) 592-8573;
Website: <http://www.nhlbi.nih.gov>

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