

[HEALTH\(/HEALTH/\)](#)

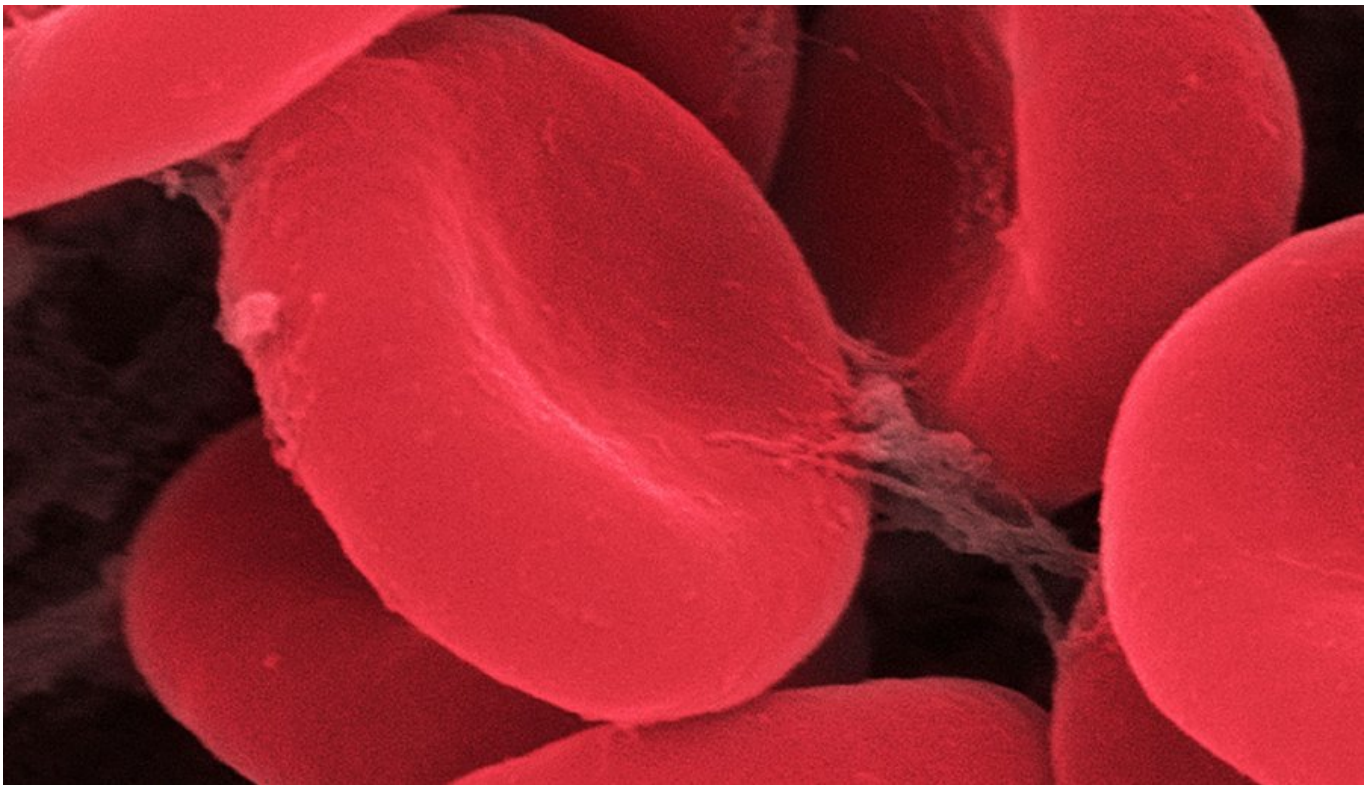
## Conditions & Treatments



# Blood Clots: What They Are and When They're Dangerous

Understanding what causes blood clots, what increases your risk — and why they're not all alike

by Barbara Brody, [AARP \(http://www.aarp.org\)](http://www.aarp.org), April 14, 2021 | Comments: 10



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[En español \(/espanol/salud/enfermedades-y-tratamientos/info-2021/que-son-coagulos-de-sangre.html?intcmp=AE-HLTH-TOSPA-TOGL-ES\)](#) | Blood, by definition, is a liquid, but if you nick your finger while chopping vegetables, you want that liquid to solidify pretty quickly. That's where

coagulation — aka blood clotting — comes in: When everything is working properly, platelets rush to a wound and create a plug; then a threadlike protein called fibrin forms a mesh to stabilize it. As you heal, the clot slowly dissolves, and normal blood flow eventually resumes in the injured area.

Sometimes, however, blood clots form where they're not supposed to. Developing an inappropriate clot can be a mere nuisance, or it can put your life in danger. The threat level largely depends on where the clot occurs, says Maissaa Janbain, M.D., associate director of the Louisiana Center for Bleeding and Clotting Disorders at the Tulane University School of Medicine.

Clots that form in the superficial veins just under the surface of the skin are rarely dangerous. If you have varicose veins, for instance, you probably have some superficial blood clots, and although they might be painful or tender, they're unlikely to seriously harm you. Other types of blood clots, however, have the potential to be extremely dangerous. You're far more likely to develop one of these troublesome clots if you carry a genetic mutation that makes your blood clot too easily. (If you have a family history of clotting problems, your doctor might order blood tests to check.)

Pregnant women are also at greater risk, as are women on hormonal medication (such as birth control pills, hormone therapy for menopause symptoms, or hormonal breast cancer treatment). Being inactive for extended periods because of, say, surgery or long-distance travel, also ups the risks of dangerous clots. Obesity, smoking and certain autoimmune disorders are notable risk factors as well.

People who develop dangerous clots, says Janbain, “often have an underlying problem, like a genetic mutation, as well as an acquired one, like being on hormonal birth control.”

## Clots that form in the larger veins in the legs

The most common kind of potentially dangerous blood clot is deep vein thrombosis (DVT), which is a blood clot that tends to form in the deep veins of the legs (though similar clots may form in the pelvis, the arms or elsewhere). DVT is perhaps best known for its association with travel, since being sedentary for many hours — especially when your legs are cramped in tight quarters and you're not drinking ample fluids — increases the risk that your blood will stagnate and form a clot, says Janbain.

DVT alone can cause problems like pain and swelling, but the real danger occurs if a DVT turns into a pulmonary embolism (</health/conditions-treatments/info-2020/pain-symptoms.html>) (PE), meaning it breaks off and travels to your lungs. The Centers for Disease Control and Prevention estimates that 900,000 Americans have a DVT or PE every year, and that 60,000 to 100,000 die as a result.

If you develop DVT, you might notice that an area of your leg feels warm, looks red and is tender to the touch. Consider this constellation of symptoms to be a sign that you need immediate medical attention, so go to the emergency room or call 911.

## Blood clots in the brain

A sudden, severe headache — the worst you've had in your entire life — might indicate that you have a blood clot in a vein in your brain. So, too, can weakness in your face or limbs, difficulty speaking or vision problems. One type is cerebral venous sinus thrombosis (CVST), which is what's currently being investigated as a possible rare adverse event linked to the adenovirus vector vaccines made by

AstraZeneca and [Johnson & Johnson for COVID-19 \(/health/conditions-treatments/info-2021/johnson-and-johnson-vaccine-paused.html\)](/health/conditions-treatments/info-2021/johnson-and-johnson-vaccine-paused.html). Only about 5 people out of a million have a CVST each year. It's often but not always fatal.

"This is very, very rare," says Janbain. This type of clot is most apt to strike in newborns as well as in pregnant women and in premenopausal women who have a combination of risk factors. "They're often on birth controls and have another issue, such as an inherited clotting disorder," she explains. "I haven't had any patients [with CVST] so far who don't have an underlying condition."

## Blood clots in major arteries

When hematologists talk about blood clots, they're focusing primarily on clots that form in veins due to hypercoagulation, meaning blood that clots too easily, says Janbain. Still, you should know that other types of clots play a key role in [strokes \(/health/brain-health/info-2020/stroke-survivor-stories.html\)](/health/brain-health/info-2020/stroke-survivor-stories.html) and [heart attacks \(/health/conditions-treatments/info-2019/heart-attack-survivor-stories.html\)](/health/conditions-treatments/info-2019/heart-attack-survivor-stories.html): When fatty deposits called plaque build up in arteries (which carry blood from the heart to the rest of the body), they can rupture, forming a clot that breaks off and obstructs blood flow. If such a clot blocks blood flow in an artery to the brain, it will cause an ischemic stroke. When the same thing happens in an artery that supplies blood to the heart, it causes a heart attack.

## Blood clots in the lungs

Some blood clots originate in the deep veins of the legs and travel to the lungs, but it's also possible for a clot to initially form in the vessels of the lungs. Either way, you'll likely have chest pain and trouble breathing and will require immediate medical help.

## Abdominal blood clots

Abdominal blood clots aren't very common, but they are serious. You might develop belly pain, nausea or vomiting. "You might feel a sharp pain after eating," adds Janbain. Again, this is a medical emergency, so get help right away," adds Janbain. Again, this is a medical emergency, so get help right away.

### More on Health

- [Johnson & Johnson vaccine paused because of blood clot risk \(/health/conditions-treatments/info-2021/johnson-and-johnson-vaccine-appointment.html\)](/health/conditions-treatments/info-2021/johnson-and-johnson-vaccine-appointment.html)
- [Monitoring your blood pressure at home \(/health/conditions-treatments/info-2019/home-blood-pressure-monitoring.html\)](/health/conditions-treatments/info-2019/home-blood-pressure-monitoring.html)
- [A blood test could help predict Alzheimer's \(/health/dementia/info-2019/alzheimers-test.html\)](/health/dementia/info-2019/alzheimers-test.html)

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