CONDITION

Superficial thrombophlebitis

Superficial thrombophlebitis is inflammation and clotting in a vein close to the skin.

WHAT IT IS
Inflamed superficial vein containing a blood clot

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Tenderness, redness, warmth, firm cord-like vein

WHAT CAUSES IT
Slowed blood flow, vein injury, increased clotting tendency

HOW IT IS DIAGNOSED
Examination and duplex ultrasound

MAIN TREATMENT
Symptom relief or anticoagulant medicine

CAN IT BE CURED?
Yes - most episodes settle over weeks

IS IT AN EMERGENCY?
Sometimes - breathlessness or chest pain needs emergency care

LONG-TERM OUTLOOK
Usually full recovery, with possible recurrence

Overview

Superficial thrombophlebitis is inflammation of a superficial vein, meaning a vein close to the skin. A blood clot forms inside the vein, causing pain and tenderness. The medical term superficial venous thrombosis , or SVT, is now often used because clotting is an important part of the condition.

It most often affects the legs, especially where there are varicose veins. Varicose veins are enlarged, twisted veins caused by weakened vein walls or valves. Superficial thrombophlebitis can also develop in an arm after an intravenous line, injection, or other irritation to a vein.

The affected vein may feel like a sore, hard cord under the skin. The skin above it can become red or darker than usual, warm, and swollen.

Superficial thrombophlebitis is different from deep vein thrombosis, or DVT. A DVT is a clot in a

deeper vein, usually in the leg or pelvis. However, the two conditions can occur together, and a superficial clot can sometimes extend into the deep veins. This is why an assessment and, in many cases, an ultrasound are important.

Symptoms

Symptoms usually follow the path of a vein rather than affecting the entire limb. They may develop over several hours or days.

Common symptoms include:

The area may be painful when touched or while walking. In people with darker skin, redness may be less noticeable. Warmth, tenderness, swelling, and a change from your usual skin colour may be easier to recognize.

Symptoms in an arm often appear around the site of a cannula, intravenous line, injection, or blood draw. The vein may feel hard for some distance from that site.

A fever, pus, rapidly spreading redness, or feeling generally unwell is not typical of an uncomplicated superficial clot. These features may suggest an infection and need prompt medical assessment.

Swelling of the whole leg or arm, rather than a small area around a vein, can be a sign of a deeper clot or another condition.

- Pain or tenderness along a vein
- Redness or darker skin over the vein
- Warmth and local swelling
- A hard, knotted, or cord-like vein under the skin
- Mild swelling around the affected area

Causes and risk factors

A superficial clot can form when blood flow slows, the vein wall is injured, or the blood becomes more likely to clot. Sometimes more than one factor is involved.

Varicose veins are the most common setting for superficial thrombophlebitis in the legs. Blood moves less efficiently through these veins, which can encourage clot formation and inflammation.

Other factors that can increase the chance of superficial thrombophlebitis include:

A clot that appears without varicose veins or another clear trigger may need further assessment. Repeated clots, clots in unusual locations, or inflammation that moves from one vein to another can sometimes be linked to an underlying clotting or inflammatory condition. This does not mean that a serious cause is always present.

- A previous superficial clot, DVT, or pulmonary embolism
- Recent surgery, injury, or reduced mobility
- Pregnancy and the weeks after giving birth
- Estrogen-containing contraception or hormone therapy
- Cancer or cancer treatment
- Obesity
- Smoking
- An intravenous catheter or medicine that irritates a vein
- An inherited or acquired condition that makes blood clot more easily

Diagnosis

A healthcare professional will ask when the symptoms began, whether they are spreading, and whether you have had previous blood clots. They may also ask about recent surgery, travel, reduced movement, pregnancy, medicines, cancer, and intravenous lines.

The affected limb is examined for tenderness, warmth, swelling, skin changes, and a firm vein. The rest of the limb may be checked for signs of a deeper clot.

A duplex ultrasound is commonly used for suspected superficial thrombophlebitis in a leg. This painless scan uses sound waves to show blood flow and whether a vein can be compressed normally. It can confirm the clot's location and length, show how close it is to a deep vein, and look for a DVT.

Symptoms alone cannot always show how far a clot extends. Ultrasound is particularly important when the clot is above the knee, near the groin or back of the knee, extensive, or associated with significant limb swelling or other clotting risks.

A D-dimer blood test measures a substance released as clots break down. It cannot reliably confirm or exclude superficial thrombophlebitis by itself. Other tests may be considered if clots recur or there is no clear cause.

Treatment and management

Treatment is based on the clot's location and length, its distance from the deep veins, your symptoms, and your risk of clot extension or bleeding.

A small clot away from the deep veins may be managed with measures that reduce discomfort. These can include keeping active as tolerated, elevating the limb while resting, and applying a warm compress. Anti-inflammatory pain medicines may help some people, but they are not suitable for everyone. They can increase bleeding risk when combined with anticoagulants like warfarin or apixaban , so medicine choices should be checked with a healthcare professional.

Compression stockings may reduce swelling or discomfort for some people with a leg clot. They need to fit correctly and may not be appropriate when blood flow through the leg's arteries is poor. Evidence for their benefit in superficial thrombophlebitis is limited.

An anticoagulant is a medicine that reduces the blood's ability to form or enlarge clots. It may be recommended when a superficial clot is long, above the knee, close to where a superficial vein joins a deep vein, or associated with other clotting risks. The medicine and length of treatment are chosen according to the scan findings, clotting risk, bleeding risk, kidney function, pregnancy status, and other health factors.

Antibiotics like amoxicillin or doxycycline do not treat an ordinary blood clot. They are used only when there is evidence of a bacterial infection.

If an intravenous catheter has caused thrombophlebitis, it may need to be removed or replaced by the healthcare team. Surgery is rarely needed during an acute episode. Treatment for underlying varicose veins may be discussed after the inflammation has settled, particularly if clots keep returning.

Complications

The main concern is extension of the clot into a deep vein, causing a DVT. Part of a deep clot can break away and travel to the lungs. This is called a pulmonary embolism , or PE.

The risk is greater when a superficial clot is extensive, close to a connection with the deep veins, or accompanied by factors such as previous clots, cancer, pregnancy, recent surgery, or reduced mobility. Ultrasound helps identify these situations.

Other possible complications include ongoing tenderness, skin discolouration, and a firm vein that can take weeks or months to soften. Superficial thrombophlebitis can return, especially when varicose veins remain.

Infection within a clotted vein, called septic thrombophlebitis, is uncommon. It is more likely

after an infected intravenous catheter or another source of bacteria in the bloodstream.

Prevention

Superficial thrombophlebitis cannot always be prevented. Varicose veins, inherited clotting tendencies, necessary medical treatment, and unexpected illness may create risks that are not fully controllable.

During long periods of sitting, regular movement can help keep blood flowing. Follow the travel and mobility advice given to you if you have recently had surgery, are pregnant, or have previously had a blood clot. Do not start aspirin or an anticoagulant for prevention unless it has been recommended for your situation.

Stopping smoking can lower overall blood vessel and clotting risks. Maintaining movement during recovery from illness or surgery may also help when it is safe to do so.

Healthcare teams reduce catheter-related risk by using careful insertion and cleaning methods and by removing intravenous lines when they are no longer needed. Tell the team if a catheter site becomes painful, red, swollen, or starts leaking.

If repeated episodes are linked to varicose veins, treating those veins may lower the chance of another episode. The available options and their likely benefits should be assessed after the acute clot has settled.

Living with it and what to expect

Pain and redness often begin to improve over days to a few weeks once treatment starts. The hard vein may remain noticeable for longer because the body needs time to break down and reorganize the clot. A small area of darker skin or a firm cord can persist for several months.

Gentle walking is usually encouraged unless you have been told otherwise. Normal activity can be increased according to comfort. Prolonged bed rest is generally not helpful and may slow blood flow.

If you are prescribed an anticoagulant, take it for the agreed period and follow instructions about missed doses, procedures, and other medicines. Report unusual or persistent bleeding. Do not stop an anticoagulant early without medical advice, even if the pain has settled.

Follow-up may be needed to check that symptoms are improving. Another ultrasound may be arranged if the clot is close to the deep veins, symptoms spread, or the initial scan was uncertain.

Many people recover without lasting limits on work, exercise, or daily life. Recurrence is possible, particularly with varicose veins or an ongoing tendency to clot. Future episodes of new vein pain or swelling still need assessment rather than being assumed to be the same condition.

When to get medical help

Arrange prompt medical assessment for a new painful, warm, hard, or discoloured vein. Symptoms cannot reliably distinguish a superficial clot from a DVT, skin infection, or another cause.

Seek urgent same-day care if:

Call emergency services for sudden shortness of breath, chest pain, coughing up blood, fainting, or severe weakness. These can be symptoms of a pulmonary embolism or another urgent condition.

Routine follow-up is appropriate when symptoms are steadily improving but the vein remains firm, mildly tender, or discoloured. Mention persistent symptoms, repeated episodes, or medicine side effects at that review.

- Pain, redness, or hardness is spreading toward the groin or knee
- Most or all of the leg or arm becomes swollen
- Symptoms rapidly worsen despite treatment
- You develop fever, pus, spreading redness, or feel significantly unwell
- New symptoms occur while you are taking an anticoagulant
- You have major bleeding, blood in vomit or urine, or black stools

Common questions

Is superficial thrombophlebitis the same as DVT?

No. Superficial thrombophlebitis affects a vein close to the skin, while DVT affects a deeper vein. A superficial clot can sometimes extend into the deep system, and both can occur together. An ultrasound can show which veins are involved.

How long does superficial thrombophlebitis last?

Pain, warmth, and redness often improve over days to a few weeks. The hardened vein may take several weeks or months to soften. The course can be longer if the clot is extensive, if

complications develop, or if an underlying vein problem remains.

Can I walk with superficial thrombophlebitis?

Gentle walking is usually safe and helps maintain blood flow, unless a healthcare professional has advised you differently. Adjust activity to your comfort. Seek reassessment if walking is becoming more painful or swelling is increasing.

Can the clot travel to my lungs?

A clot confined to a small superficial vein is less likely to cause a pulmonary embolism than a DVT. However, a superficial clot can grow into a deep vein, where the risk is more serious. Sudden breathlessness, chest pain, coughing blood, or fainting requires emergency care.

Do I need antibiotics?

Not for an uncomplicated superficial blood clot. Antibiotics treat bacterial infection, not clotting or inflammation alone. Fever, pus, spreading redness, or illness around an intravenous line may indicate infection and should be assessed promptly.

Can superficial thrombophlebitis come back?

Yes. Recurrence is more likely when varicose veins or another clotting risk remains. If episodes repeat, occur without an obvious trigger, or appear in different veins, further assessment may be recommended.

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