CONDITION

Purpura

Purpura means red or purple skin spots caused by bleeding under the skin.

WHAT IT IS
Bleeding beneath the skin causing non-fading red or purple spots

BODY SYSTEM
Skin, blood and blood vessels

MAIN SYMPTOMS
Purple spots, pinpoint dots, bruise-like patches, possible bleeding

WHAT CAUSES IT
Platelet, clotting, blood-vessel, infection, or medicine-related problems

HOW IT IS DIAGNOSED
Skin examination; blood tests and sometimes biopsy identify the cause

MAIN TREATMENT
Treating the cause; observation or medicines when needed

CAN IT BE CURED?
Sometimes - clears when the cause resolves

IS IT AN EMERGENCY?
Sometimes - rapid spread with fever or severe bleeding

LONG-TERM OUTLOOK
Often clears, but ongoing causes may lead to recurrence

Overview

Purpura is the name for red, purple, or brownish spots caused by blood leaking from small blood vessels into the skin or nearby tissue. The color does not disappear when you press on it. This is called a non-blanching rash.

Purpura is a condition or physical sign, not one specific disease. It can follow minor pressure or skin injury. It can also be linked to low platelets, inflammation of blood vessels, an infection, a medicine, or a problem with blood clotting.

Platelets are small cell fragments that help stop bleeding. Clotting factors are proteins that help form a stable blood clot. Problems with either can allow bleeding beneath the skin.

Very small, pinpoint spots are often called petechiae . Larger spots are called purpura, while broad bruise-like patches may be called ecchymoses . These terms describe size and

appearance; they do not identify the cause.

Many causes are mild or temporary. However, newly appearing or rapidly spreading purpura can sometimes signal a serious infection or bleeding problem, especially when you also feel unwell.

Symptoms

Purpura may appear as scattered dots, clusters, or irregular patches. On lighter skin, the marks may look red or purple. On darker skin, they may appear deep purple, brown, or darker than the surrounding skin.

The spots usually do not fade when pressed because the blood is outside the blood vessels. A clear glass pressed firmly against the area may make this easier to see. This "glass test" cannot determine the cause or safely rule out serious illness.

Other features depend on why the purpura developed:

Flat purpura may occur with low platelets or fragile skin. Palpable purpura , meaning spots you can feel as raised bumps, can occur when small blood vessels are inflamed. This is called vasculitis, but appearance alone cannot confirm it.

- Easy bruising or bruises without a clear injury
- Bleeding from the nose or gums
- Heavier menstrual bleeding
- Blood in urine or stool
- Raised, tender, burning, or itchy spots
- Joint pain, stomach pain, fever, or tiredness

Causes and risk factors

Minor trauma, pressure, strong coughing, vomiting, or straining can break tiny blood vessels. These spots often occur around the face, eyes, or an area affected by tight clothing or pressure.

Older or sun-damaged skin becomes thinner and more fragile. This can cause recurrent dark patches, often on the hands and forearms, after very small injuries. Long-term corticosteroid use can also thin the skin.

A low platelet count, called thrombocytopenia , is another important cause. Platelets may be

destroyed by the immune system, reduced by illness or bone marrow problems, or affected by medicines. Immune thrombocytopenia, or ITP, is one example.

Some medicines can increase bleeding or bruising. These include anticoagulants like warfarin or apixaban , which reduce blood clotting, and antiplatelet medicines, which make platelets less sticky. Certain antibiotics like amoxicillin or doxycycline , cancer treatments, and other medicines may lower platelet levels. Do not stop a prescribed medicine without medical advice.

Blood-vessel inflammation can allow blood to leak into the skin. IgA vasculitis is one form that can also affect the joints, bowel, and kidneys. Other immune conditions, infections, and medicines can cause small-vessel vasculitis.

Less commonly, purpura may be related to liver disease, an inherited bleeding disorder, vitamin deficiency, a serious infection, or a condition affecting blood-cell production.

Diagnosis

A clinician first examines the spots and asks when they appeared, whether they are spreading, and whether you have other bleeding or symptoms. They may ask about recent illnesses, injuries, travel, medicines, supplements, alcohol use, and personal or family history of bleeding.

Blood tests often include a complete blood count , which measures platelets and other blood cells. A blood smear allows blood cells to be examined under a microscope.

Clotting tests may include prothrombin time and activated partial thromboplastin time. These measure different parts of the clotting process. Liver and kidney tests may be added when relevant.

Urine testing can look for blood or protein if vasculitis or kidney involvement is possible. Depending on your symptoms, testing may also look for infection, inflammation, or an immune condition.

A skin biopsy may be needed when blood-vessel inflammation is suspected. During a biopsy, a small sample of affected skin is removed under local anaesthetic and examined in a laboratory.

Not everyone needs every test. A small patch after clear minor trauma may need only an examination. Widespread or unexplained purpura usually needs further assessment to find the cause.

Treatment and management

Treatment is based on the underlying cause, the amount of bleeding, test results, and your

general health. Purpura itself is not usually treated with a cream because the blood lies beneath the skin.

Marks caused by minor trauma or fragile skin often need no specific treatment. They gradually change color and fade as the body clears the trapped blood.

If a medicine may be contributing, a clinician can review its benefits, risks, and possible alternatives. Suddenly stopping an anticoagulant, antiplatelet medicine, or corticosteroid like prednisone or hydrocortisone can be harmful, so changes should be medically supervised.

Low platelet counts do not always require immediate treatment. When treatment is needed, options may include medicines that reduce immune destruction of platelets, treatments that raise platelet levels, or therapy for the illness causing the low count. Severe active bleeding may require hospital care and blood products.

Treatment for vasculitis depends on its cause and whether organs such as the kidneys, lungs, or bowel are affected. Mild skin-limited disease may settle with monitoring and treatment of a trigger. More significant inflammation may require medicines that calm the immune system.

A bacterial infection causing purpura needs urgent antibiotic treatment. Other infections receive treatment according to the organism and severity.

Complications

The possible complications come from the underlying cause rather than the skin color itself.

A very low platelet count or severe clotting problem can lead to internal bleeding. Warning signs include blood in vomit, urine, or stool; unusually heavy vaginal bleeding; or a sudden severe headache with neurological symptoms.

Vasculitis may affect tissue beyond the skin. Depending on the type, this can cause abdominal pain, bowel bleeding, joint symptoms, or kidney inflammation. Kidney involvement may not cause obvious symptoms at first, which is why urine and blood-pressure follow-up can matter.

Repeated blood loss may cause anaemia, meaning too few healthy red blood cells. This can lead to tiredness, weakness, shortness of breath, or dizziness.

Skin spots usually heal without scarring. Deeper inflammation, tissue injury, or repeated scratching can sometimes leave color changes or scars.

Prevention

Purpura cannot always be prevented. Immune, inherited, and bone marrow causes are not the

result of something you did, and routine lifestyle changes cannot reliably prevent them.

If you have fragile or sun-damaged skin, protecting your arms from bumps and using sun protection may reduce new patches. It cannot reverse existing skin thinning.

If a medicine affects your platelets or clotting, take it exactly as directed and attend any recommended monitoring. Tell healthcare professionals about anticoagulants, antiplatelet medicines, supplements, and previous bleeding before procedures.

When you have a known bleeding or platelet disorder, your care team may recommend ways to reduce injury risk. The appropriate precautions depend on how low your platelet count is and why it is low.

Vaccination can prevent some infections that may cause serious illness with purpura, but it does not prevent every infection or every cause of purpura.

Living with it and what to expect

Purpura caused by a minor injury usually behaves like a bruise. The color may shift from red or purple to brown, green, or yellow before fading over days to weeks.

Purpura from fragile, sun-damaged skin may return after small knocks. Although the appearance can be upsetting, the patches themselves are usually not painful or dangerous. Protecting the skin may reduce new marks, but recurrence is common.

The course of platelet disorders is less predictable. Some temporary platelet reductions improve after an infection or trigger resolves. Immune thrombocytopenia may settle, return, or become long term. Follow-up commonly includes blood counts and a review of bleeding symptoms.

Skin vasculitis may occur as a single episode or in repeated flares. Follow-up depends on the type and whether internal organs are involved. IgA vasculitis, for example, may require urine and blood-pressure checks because kidney changes can appear after the skin rash.

Take photographs if spots change before an appointment. Note when they started, where they appeared, and whether there was illness, a new medicine, unusual bleeding, or an injury. This record can help with assessment.

When to get medical help

Call emergency services or seek emergency care if purpura appears with:

A serious infection can worsen quickly. Do not wait for every possible symptom to appear, and

do not rely on a glass test if you or a child is becoming unwell.

Arrange prompt, same-day medical assessment for new widespread or unexplained purpura, spots that are increasing, bleeding from the gums or nose, blood in urine, or unusually heavy menstrual bleeding. Fever, abdominal pain, joint pain, or feeling generally unwell also warrants prompt review.

Routine follow-up is appropriate for stable, previously assessed purpura or recurrent easy bruising without active bleeding. Mention any change in pattern, new medicine, or increasing frequency at that review.

- Fever and rapidly spreading non-blanching spots, especially with severe illness
- Confusion, extreme drowsiness, neck stiffness, breathing difficulty, or collapse
- A sudden severe headache, weakness, speech trouble, or loss of coordination
- Vomiting blood, coughing blood, black stools, or uncontrolled bleeding
- A significant head injury when you have a bleeding disorder or take anticoagulants

Common questions

Is purpura the same as a bruise?

Both involve blood leaking beneath the skin. "Purpura" often describes multiple non-blanching spots, while "bruise" usually describes a larger patch after an injury. The terms can overlap.

Does purpura go away?

It often fades as the body absorbs the leaked blood. How long it lasts and whether it returns are determined by the cause. Persistent or recurring unexplained spots need assessment.

Is purpura contagious?

Purpura itself is not contagious. Some infections that can cause a purpuric rash can spread between people, but many causes are not infectious.

Does purpura always mean my platelets are low?

No. Low platelets are one possible cause. Purpura can also result from fragile skin, blood-vessel inflammation, clotting problems, infection, medicines, or physical pressure.

Can stress cause purpura?

Emotional stress is not a usual direct cause. Strong coughing, vomiting, or straining can create pressure that breaks tiny blood vessels, sometimes producing pinpoint spots around the face or eyes.

Why does the rash not disappear when I press it?

Pressure temporarily pushes blood out of normal skin vessels, making many red rashes fade. Purpura does not fade because the blood has leaked outside those vessels into surrounding tissue.

Sources

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