CONDITION

Autoerythrocyte sensitivity

Learn about autoerythrocyte sensitivity, a rare condition linked with painful, unexplained bruising, including symptoms, evaluation, treatment, and when to seek urgent care.

WHAT IT IS
Rare disorder causing painful unexplained bruising

BODY SYSTEM
Skin and blood

MAIN SYMPTOMS
Painful bruises, burning or tingling, tenderness, swelling

WHAT CAUSES IT
Not fully understood

HOW IT IS DIAGNOSED
Clinical evaluation excluding other causes

MAIN TREATMENT
Supportive care and psychological treatment

CAN IT BE CURED?
No, no standard cure is established

IS IT AN EMERGENCY?
Sometimes, when bleeding will not stop

LONG-TERM OUTLOOK
Bruises usually fade but episodes may recur

Overview

Autoerythrocyte sensitivity is a rare condition in which painful bruises appear without a clear injury or after only minor pressure or trauma. It is often called Gardner-Diamond syndrome or psychogenic purpura in medical literature. "Purpura" means purple or red marks caused by bleeding under the skin.

The condition is not fully understood. Its historical name came from a theory that the immune system becomes sensitive to a person's own red blood cells. Research has not confirmed a consistent immune reaction, however, and there is no single laboratory test that proves the diagnosis. Emotional stress is often associated with episodes, but that does not mean the bruising is imagined or intentional. The pain and skin changes are real.

Autoerythrocyte sensitivity matters because several more common conditions can also cause

unexplained bruising. These include low platelet counts, blood-clotting disorders, liver disease, medication effects, nutritional problems, physical injury, and some inflammatory or blood diseases. A clinician must consider and, when appropriate, test for these possibilities before diagnosing autoerythrocyte sensitivity.

The condition is reported most often in women, but people of any sex can be affected. Because it is rare and its definition has changed over time, the exact number of people who have it is unknown.

Symptoms

A typical episode begins with pain, burning, tingling, itching, or tenderness in one area of skin. Swelling or redness may follow. Over several hours, the area can develop into a blue, purple, or reddish bruise.

The bruises may be larger and more painful than ordinary bruises. They often occur on the arms or legs, although the trunk and other areas can be involved. Individual marks usually change color and fade as other bruises do. New episodes may occur at irregular intervals.

Possible features include:

Less commonly, people described in medical reports have had bleeding from the nose, gums, digestive tract, urinary tract, or reproductive tract. These symptoms should not automatically be attributed to autoerythrocyte sensitivity. They need a separate medical assessment because they can have other causes.

Ordinary bruising is common and does not usually indicate this condition. A medical evaluation is more important when bruising is frequent, painful, unusually large, increasing, or accompanied by other bleeding.

Seek emergency care for bleeding that will not stop, vomiting blood, coughing up blood, black or bloody stool, severe shortness of breath, fainting, confusion, or a sudden severe headache. Bruising after a significant head, chest, or abdominal injury also needs prompt assessment. These are not routine features to monitor at home.

- Pain or burning before a bruise becomes visible
- Bruises that appear without a remembered injury
- Marked tenderness or swelling around affected skin
- Episodes that follow minor trauma, surgery, illness, or emotional stress
- Fatigue, headache, muscle aches, or general discomfort during a flare

- Symptoms that improve and then return

Causes and risk factors

The cause of autoerythrocyte sensitivity remains uncertain. Early researchers proposed that people with the condition reacted to phosphatidylserine, a substance found in red blood cell membranes. Later studies did not find a reliable or consistent reaction, so the term "autoerythrocyte sensitivity" describes a historical theory rather than a proven cause.

Many reported episodes have occurred during periods of emotional strain, anxiety, depression, trauma, or major life change. The nervous system, stress hormones, blood vessels, pain processing, and immune system may interact in ways that contribute to symptoms. These possible connections are still being studied.

Calling the disorder "psychogenic purpura" can be misleading or stigmatizing. Psychological factors can affect physical symptoms, but they do not make those symptoms fake. A respectful evaluation should address both physical and emotional health without assuming that a person caused the bruises.

Reported associations and possible triggers include:

These factors do not establish the diagnosis. Medications and supplements are more common explanations for easy bruising. Examples include anticoagulants like warfarin or apixaban , which reduce blood clotting; antiplatelet medicines, which make platelets less sticky; corticosteroids like prednisone or hydrocortisone ; and some nonsteroidal anti-inflammatory drugs like ibuprofen or naproxen . Certain herbal or dietary products can also affect bleeding. People should not stop a prescribed medicine without speaking with the prescriber.

- Emotional stress or major life events
- Anxiety, depression, or trauma-related symptoms
- Minor physical pressure or injury
- Surgery or medical illness
- A previous pattern of unexplained painful bruising

Diagnosis

There are no widely accepted diagnostic criteria or definitive blood tests for autoerythrocyte sensitivity. It is considered a diagnosis of exclusion, meaning that clinicians first look for other reasonable causes of bruising or bleeding.

The evaluation usually begins with a detailed history. A clinician may ask when the bruises started, whether pain comes before the skin changes, how long marks last, and whether there is bleeding elsewhere. Questions may also cover recent injuries, menstrual bleeding, dental or surgical bleeding, illnesses, diet, alcohol use, pregnancy, family history, and all medicines and supplements.

A physical examination looks at the pattern and age of the bruises, signs of inflammation, and evidence of an underlying medical condition. Photographs taken as a lesion develops may help document its course. The clinician may also ask privately about safety at home, accidental injuries, self-injury, or harm by another person. These questions are a routine part of evaluating unexplained injuries and should be asked without blame.

Initial laboratory testing may include:

Normal screening tests do not rule out every bleeding disorder. Depending on the symptoms, a clinician may order tests for von Willebrand disease, platelet function, inflammation, autoimmune illness, or other conditions. Referral to a hematologist, a doctor specializing in blood disorders, or a dermatologist may be appropriate.

Some older reports describe injecting a small amount of a person's washed red blood cells into the skin and watching for a reaction. This test is not standardized and can produce inconsistent results. It also does not reliably separate autoerythrocyte sensitivity from other causes. It is therefore not a stand-alone way to make the diagnosis.

Skin biopsy is not usually diagnostic. If performed to investigate another possibility, it may show bleeding and inflammation that are not specific to this condition.

- A complete blood count to measure red cells, white cells, and platelets
- A blood smear to examine blood cells under a microscope
- Prothrombin time and international normalized ratio, often written as PT/INR
- Activated partial thromboplastin time, or aPTT
- Liver and kidney tests when the history or examination suggests they are needed

Treatment and management

There is no single treatment that has been shown to work for everyone with autoerythrocyte sensitivity. Management is based on the person's symptoms, possible triggers, emotional health, and the results of the medical evaluation.

A helpful plan begins with a clear explanation of the diagnosis and validation that the bruising and pain are real. Regular care with one clinician or coordinated team can reduce repeated

testing while still allowing new or changing symptoms to be assessed.

Psychological treatment may be offered when stress, anxiety, depression, trauma, or coping difficulties are present. This is not an accusation that symptoms are invented. Psychotherapy may help a person recognize triggers, manage stress responses, improve sleep, and cope with pain or uncertainty. A mental health professional can also assess and treat a separate anxiety, mood, or trauma-related condition when appropriate.

Supportive measures may include protecting tender areas from pressure, using clinician-approved pain relief, maintaining regular sleep and meals, and keeping a record of episodes. A symptom diary can note the date, location, pain, possible injury, stressors, medicines, other bleeding, and how long the bruise lasts. Photographs with consistent lighting can also help.

Pain medicines should be discussed with a clinician. Aspirin and some nonsteroidal anti-inflammatory drugs can worsen bleeding in certain people. Whether they are appropriate depends on the person's medical history and other medicines.

Various medicines have been tried in individual cases, including treatments aimed at anxiety, depression, inflammation, or blood vessel function. Evidence is limited, and no medicine has been established as a standard cure. Corticosteroids, immune-suppressing drugs, and repeated blood products can cause harm and should not be used simply because bruising remains unexplained.

Complications

Most skin bruises fade without causing lasting tissue damage. However, repeated episodes can interfere with work, sleep, exercise, relationships, and daily activities. Pain may become persistent or difficult to manage.

A long search for a diagnosis can also lead to distress, repeated emergency visits, unnecessary procedures, or exposure to treatments that do not help. Some people feel dismissed when testing is normal or when stress is discussed. A patient-centered approach should avoid both extremes: overlooking physical disease and assuming that every symptom has a dangerous medical cause.

A new bleeding disorder, medication effect, or unrelated illness can still develop after autoerythrocyte sensitivity has been diagnosed. New symptoms should not automatically be assigned to the existing condition.

Follow up

Routine follow-up is useful for reviewing the pattern of bruising, checking for new bleeding, discussing emotional well-being, and limiting unnecessary tests. The timing depends on symptom frequency and whether the evaluation is complete.

Contact a clinician promptly if bruises become much more frequent, appear with fever or significant illness, or are accompanied by nosebleeds, gum bleeding, blood in urine, unusually heavy menstrual bleeding, or prolonged bleeding from small cuts. New weakness, marked fatigue, weight loss, or a change after starting a medicine also deserves assessment.

Emergency care is appropriate for uncontrolled bleeding, fainting, confusion, breathing difficulty, blood in vomit or stool, a sudden severe headache, or significant trauma. People taking anticoagulant or antiplatelet medicine should follow the urgent-care instructions provided by their prescriber.

Sources

- DermNet New Zealand. "Gardner-Diamond syndrome." DermNet, clinical reference on painful bruising and psychogenic purpura.
- Ivanov OL, Lvov AN, Michenko AV, Künzel J, Mayser P, Gieler U. "Autoerythrocyte sensitization syndrome (Gardner-Diamond syndrome): review of the literature." Journal of the European Academy of Dermatology and Venereology . 2009;23(5):499-504.
- Jafferany M, Bhattacharya G. "Psychogenic Purpura (Gardner-Diamond Syndrome)." Primary Care Companion for CNS Disorders . 2015;17(1):10.4088/PCC.14br01697.
- Neutze D, Roque J. "Clinical Evaluation of Bleeding and Bruising in Primary Care." American Family Physician . 2016;93(4):279-286.