CONDITION

Weir-mitchell disease

A pain condition that causes episodes of burning, warmth, and redness, usually in the feet or hands.

WHAT IT IS
Pain condition causing episodic red, hot, burning skin

BODY SYSTEM
Nervous system and small skin blood vessels

MAIN SYMPTOMS
Burning pain, redness, warmth, swelling

WHAT CAUSES IT
Inherited changes, unknown causes, or another medical condition

HOW IT IS DIAGNOSED
Symptom pattern and examination; tests exclude related conditions

MAIN TREATMENT
Trigger control, safe cooling, medicines, and treating underlying causes

CAN IT BE CURED?
Sometimes - secondary forms may improve when causes are treated

IS IT AN EMERGENCY?
Sometimes - skin injury, infection, or dangerous cooling complications

LONG-TERM OUTLOOK
Often long-term, with flares ranging from mild to disabling

Overview

Weir-Mitchell disease is a historical name for the condition now usually called erythromelalgia . It causes episodes in which an affected area becomes hot, red, and painfully burning. The feet are affected most often, but symptoms can involve the hands, legs, arms, face, or ears.

Episodes are often triggered by heat, exercise, standing, tight footwear, or letting a limb hang down. Gentle cooling or raising the affected limb may bring relief.

The condition involves abnormal signalling in pain-sensing nerves and changes in blood flow through small vessels near the skin. However, the exact process is not fully understood in every person.

Erythromelalgia can occur by itself. This is sometimes called primary erythromelalgia. It can

also develop in connection with another medical condition or medicine, which is called secondary erythromelalgia.

Symptoms can resemble infections, circulation problems, nerve disorders, or inflammatory conditions. A medical assessment is important, especially when redness and pain are new, affect only one limb, or do not settle.

Symptoms

The main symptoms usually occur together:

Symptoms most often affect both feet or both hands, although one side may be worse. Some people have symptoms on only one side, particularly early in the condition.

A flare may last from minutes to hours or longer. Some people have occasional episodes, while others experience symptoms daily or almost continuously. The skin may look normal between flares.

Common triggers include warm weather, heated rooms, hot baths, exercise, standing, walking, tight shoes, thick socks, and alcohol. Stress, tiredness, or spicy food may contribute for some people. Triggers are not the same for everyone.

Cooling the area often feels helpful. Some people also feel better after raising their feet or hands. Repeated exposure to extreme cold, however, can damage the skin and make the condition harder to manage.

Sleep may be disrupted because warmth from bedding can provoke symptoms. Pain in the feet can also limit walking, work, exercise, or wearing ordinary shoes.

- Burning or severe hot pain
- Red or darker-looking skin
- Noticeable warmth
- Swelling, tingling, or increased skin sensitivity

Causes and risk factors

Primary erythromelalgia develops without another condition clearly causing it. In some families, it results from a change in the SCN9A gene. This gene helps control sodium channels, which allow pain-sensing nerves to send electrical signals. A gene change can make those nerves unusually easy to activate.

Inherited forms often begin in childhood or adolescence, but age of onset is not enough to identify the cause. Many people with primary erythromelalgia do not have an identified gene change or family history.

Secondary erythromelalgia is associated with another health problem. Important examples include blood disorders that produce too many blood cells or platelets, such as essential thrombocythaemia or polycythaemia vera. Symptoms may occasionally appear before the blood disorder is diagnosed.

Other reported associations include autoimmune conditions, peripheral neuropathy, diabetes, and some infections. Certain medicines can also produce similar symptoms or make existing symptoms worse. An association does not always prove that the condition caused erythromelalgia.

Risk factors therefore depend on the form involved. Having a close relative with an inherited form may increase risk. For secondary forms, the relevant risk comes from the underlying condition rather than from lifestyle choices.

Diagnosis

There is no single test that confirms every case of erythromelalgia. Diagnosis is usually based on the characteristic pattern of burning pain, warmth, and redness, including what triggers and relieves it.

The affected skin may look normal during an appointment. Photographs taken during a flare can help show the colour change and swelling. A record of triggers, duration, affected areas, and cooling methods can also be useful.

Your clinician may check pulses, skin temperature, sensation, swelling, and signs of infection or blood-vessel disease. Tests are selected according to your symptoms and medical history. They may include:

Genetic testing is not needed for everyone, and a negative result does not rule out erythromelalgia. Skin biopsy and nerve studies may identify another problem, but they do not usually confirm erythromelalgia by themselves.

Conditions that may need to be ruled out include cellulitis, blood clots, poor arterial circulation, complex regional pain syndrome, Raynaud phenomenon, gout, and small-fibre neuropathy.

- A complete blood count to look for high platelet or red blood cell levels
- Blood tests for inflammation, autoimmune conditions, diabetes, or other possible causes
- Nerve tests when peripheral nerve damage is suspected

- Genetic testing when symptoms suggest an inherited form

Treatment and management

Treatment aims to reduce flares, control pain, protect the skin, and address any underlying cause. Finding a helpful approach can take time because no single treatment works for everyone.

Avoiding known triggers may reduce symptoms. Helpful measures can include keeping rooms comfortably cool, choosing loose and breathable footwear, taking breaks from prolonged standing, and raising an affected limb during a flare.

Cooling must be gentle. A fan, cool room, or cool gel pack wrapped in cloth may help. Do not place ice directly on the skin or keep hands or feet in very cold water. Prolonged cooling can cause frostbite-like injury, ulcers, infection, and tissue damage. It can also lead to a cycle in which the skin warms up again and the pain returns.

Medicines may be considered when practical measures are not enough. Options include treatments applied to the skin and medicines that change how nerves send pain signals. These may include local anaesthetics, certain antiseizure medicines, some antidepressants like sertraline or fluoxetine , or medicines that affect sodium channels.

Aspirin can be particularly effective when erythromelalgia is linked to some high-platelet blood disorders. It does not help every form and can cause harm in some people, so it should only be used when a clinician recommends it.

If a medicine may be contributing, the prescriber can review alternatives. Do not stop a prescribed medicine suddenly without medical advice.

Severe or persistent symptoms may require care from dermatology, neurology, pain medicine, blood-disorder specialists, or a combined team. Procedures that block nerves or alter pain signalling are reserved for carefully selected cases when other treatment has not helped.

Complications

The most important physical complications often result from uncontrolled symptoms or excessive cooling.

Repeated ice exposure or prolonged soaking can damage skin and small blood vessels. This may lead to blisters, open sores, infection, poor wound healing, or tissue loss. Reduced sensation can make cold injury harder to notice.

Pain may limit walking and daily activity. Over time, reduced movement can affect strength, fitness, work, and independence. Sleep disruption is common during frequent flares.

Long-term pain can also affect mood and concentration. Anxiety about triggering a flare may lead someone to avoid social activities, exercise, or leaving a cool environment. Support for sleep and emotional health can be an important part of treatment.

Secondary erythromelalgia may carry complications related to its underlying cause. For example, some blood disorders increase the risk of blood clots. That risk comes from the blood disorder and needs separate medical management.

Prevention

Primary erythromelalgia usually cannot be prevented. Inherited gene changes are not caused by diet, activity, or anything a person did.

There is also no proven general method for preventing all secondary cases. Managing an associated medical condition and reviewing medicines may reduce symptoms or prevent worsening in some people.

You can help prevent complications by avoiding direct ice, prolonged cold-water soaking, tight footwear, and unplanned changes to prescribed medicines. Protecting the skin and treating cuts or blisters early may reduce the chance of infection.

If an inherited form is confirmed, genetic counselling can explain how it may be passed through a family. Counselling provides information rather than predicting exactly who will develop symptoms or how severe they will be.

Living with it and what to expect

The course is different from person to person. Some people have mild, occasional flares that remain manageable for years. Others develop more frequent or persistent pain that interferes with sleep, movement, school, or work.

Inherited forms may begin early and continue long term. Symptoms do not always progress at a steady rate. They may become more or less active over months and years, and triggers can change.

Secondary erythromelalgia may improve when the underlying condition is successfully treated or a contributing medicine is changed. Improvement is not guaranteed, and nerve-related symptoms may continue even after the trigger has been addressed.

A practical flare plan can make daily life easier. This may include suitable footwear, access to a fan, planned rest periods, and skin checks after cooling. Keeping notes about symptoms can help identify patterns and show whether treatment is helping.

Regular follow-up is useful when symptoms are ongoing, treatment causes side effects, or an associated blood or nerve condition needs monitoring. New symptoms should not automatically be assumed to be part of erythromelalgia.

When to get medical help

Arrange a routine appointment if you have repeated episodes of burning, warmth, and redness, especially when they affect your sleep, walking, or usual activities. Assessment is also appropriate if symptoms are becoming more frequent or your current management is no longer helping.

Seek urgent medical advice if:

Call emergency services for chest pain, severe breathing difficulty, fainting, confusion, or signs of a stroke, such as facial drooping, arm weakness, or difficulty speaking. These are not typical erythromelalgia symptoms and need immediate assessment.

- A red, hot, swollen area is new, one-sided, or rapidly worsening
- The skin develops blisters, an open sore, discharge, or spreading redness
- You have a fever or feel unwell with worsening skin symptoms
- Cooling has caused numbness, pale or blue skin, or loss of sensation
- Pain is suddenly much more severe than usual

Common questions

Is Weir-Mitchell disease the same as erythromelalgia?

Yes. Weir-Mitchell disease is an older name. Erythromelalgia is the term more often used in current medical care. Despite the historical name, it is described here as a condition.

Is erythromelalgia an autoimmune condition?

Not usually. Some people with erythromelalgia also have an autoimmune condition, but many do not. In other cases, it is inherited, associated with a blood disorder, or has no identified cause.

Why does heat make my feet burn?

Heat can widen small blood vessels and increase activity in unusually sensitive pain nerves. Exercise and standing can have similar effects. This helps explain common triggers, but the exact balance between nerve and blood-vessel changes differs among people.

Can erythromelalgia go away?

Sometimes. Secondary symptoms may improve if an underlying condition is treated or a contributing medicine is changed. Primary forms are often long term, although the frequency and severity of flares can change.

Should I put my feet in ice water?

No. Extreme or prolonged cooling can injure the skin, nerves, and blood vessels. Use gentle cooling instead, such as a fan or a cool pack wrapped in cloth, and stop if the skin becomes numb, pale, or blue.

Is erythromelalgia dangerous?

The condition itself is not usually life-threatening. Severe pain can still be disabling, and unsafe cooling can cause serious skin injury. An associated blood disorder or another cause may also require treatment in its own right.

Sources

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