CONDITION

Red birthmarks

Red birthmarks are visible blood vessel changes that form red, pink, or purple areas on or under the skin.

WHAT IT IS
Blood vessel changes affecting the skin or deeper tissues

BODY SYSTEM
Skin and blood vessels

MAIN SYMPTOMS
Flat red patch, raised lump, swelling, occasional bleeding

WHAT CAUSES IT
Usually altered blood vessel development

HOW IT IS DIAGNOSED
Skin examination; ultrasound or MRI for deeper lesions

MAIN TREATMENT
Monitoring, medicines, laser therapy, or surgery

CAN IT BE CURED?
Sometimes - treatment can remove or lighten some types

IS IT AN EMERGENCY?
Sometimes - breathing trouble, heavy bleeding, or neurological symptoms

LONG-TERM OUTLOOK
Usually harmless, though some need long-term specialist care

Overview

Red birthmarks are areas of extra, widened, or unusually formed blood vessels. They may look pink, red, purple, or blue. Some are flat, while others form a raised lump or swelling.

"Red birthmark" is a general description rather than one diagnosis. Doctors divide these marks into two main groups:

A salmon patch is a common, pale pink capillary mark. It is often found between the eyebrows, on the eyelids, or at the back of the neck. Facial salmon patches usually fade during early childhood, although marks on the neck may remain.

A port-wine stain is a deeper red or purple capillary malformation. It is present at birth, grows in proportion with the child, and usually does not disappear without treatment.

An infantile haemangioma may be absent or barely visible at birth. It often appears during the first few weeks of life, grows for a time, and then slowly shrinks over several years. A congenital haemangioma is different: it is already fully formed when the baby is born.

Most red birthmarks are harmless. Their type, position, depth, and growth pattern matter. A mark near an eye, nose, mouth, airway, or lower spine may need early assessment even if it is not causing symptoms.

- Vascular tumours , in which blood vessel cells grow. Infantile haemangiomas are the most common example.
- Vascular malformations , in which blood vessels formed differently before birth. Capillary malformations, including port-wine stains, belong to this group.

Symptoms

The appearance of a red birthmark can change with temperature, crying, activity, or age.

Common features include:

Infantile haemangiomas often grow most quickly during the first few months of life. Superficial ones can look bright red and bumpy. Deeper haemangiomas may look blue or skin-coloured and feel soft.

Capillary malformations are usually flat at birth. Port-wine stains may become darker, thicker, or more textured over many years. Small firm bumps can sometimes develop within the mark in adulthood.

Most red birthmarks do not hurt. Pain, warmth, repeated bleeding, an open sore, or sudden swelling is not typical of a simple stable mark and should be assessed.

- A smooth pink or red patch
- A sharply outlined red or purple area
- A raised, bright red lump
- A soft swelling beneath normal-looking or bluish skin
- Temporary colour changes when the area is pressed
- Gradual thickening, darkening, or surface changes

Causes and risk factors

Red birthmarks result from changes in how blood vessels develop or grow. They are not

caused by something a parent did during pregnancy, and they are not caused by food, stress, or minor injury.

In many vascular malformations, the change begins in a small group of cells during early development. This is called a somatic genetic change . It is present only in the affected tissue rather than throughout the body, so most red birthmarks are not inherited.

The exact cause of infantile haemangiomas is not fully understood. They are seen more often in babies born prematurely or at a low birth weight, girls, and babies from multiple pregnancies. Having one of these factors does not mean a baby will develop a haemangioma.

Most capillary malformations occur by chance. Rarely, a red birthmark is one feature of a condition that also affects the eyes, brain, bones, or other tissues. The pattern and location of the mark help determine whether further checks are appropriate.

Diagnosis

Many red birthmarks can be identified from their appearance, location, and history. A healthcare professional may ask whether the mark was present at birth, when it began growing, and whether it has changed in colour, thickness, or size.

Photographs taken at regular intervals can help show whether a mark is growing quickly or beginning to fade.

An ultrasound may be used when a lesion is deep, when its blood flow needs to be examined, or when the diagnosis is unclear. Ultrasound uses sound waves and does not expose the child to radiation.

MRI provides detailed pictures of deeper tissues. It may be considered for a large or unusual lesion, or when a birthmark may involve structures beneath the skin. Marks in certain facial or spinal patterns may lead to eye, neurological, or other specialist assessments.

A skin biopsy, in which a small tissue sample is removed, is rarely needed. It may be used if the appearance or behaviour does not fit a typical vascular birthmark.

Treatment and management

Many red birthmarks need no treatment. Monitoring may be suitable for a small mark that is not growing rapidly, breaking down, or affecting an important body function.

Early assessment matters for infantile haemangiomas that could interfere with sight, breathing, feeding, or hearing. Treatment may also be considered for haemangiomas at high

risk of ulceration or permanent scarring.

A beta-blocker medicine called propranolol is commonly used for problematic infantile haemangiomas. It can slow growth and help the lesion shrink. Because it can affect heart rate, blood pressure, breathing, and blood sugar, treatment is planned and monitored by an experienced healthcare team.

A beta-blocker like metoprolol or propranolol applied to the skin, such as timolol, may be considered for selected small, thin haemangiomas. It is not appropriate for every lesion, and some of the medicine can still be absorbed into the body.

Laser treatment is often used to lighten capillary malformations such as port-wine stains. A pulsed-dye laser targets blood vessels while limiting damage to nearby skin. Several sessions may be needed, and the mark may not disappear completely. Colour can return or deepen over time.

Surgery is occasionally used for a lesion that does not respond to other treatment, leaves loose tissue after shrinking, or causes a functional problem. Other vascular malformations may need treatments such as sclerotherapy, in which medicine is injected to close abnormal vessels. These decisions are usually made by a specialist vascular anomalies team.

Cover creams and camouflage products can reduce the visible colour of a persistent mark. Emotional support can also be an important part of care, particularly if a birthmark attracts comments or affects confidence.

Complications

Most red birthmarks do not cause medical complications.

Some haemangiomas can develop an ulcer, meaning the surface breaks down into a sore. Ulcers can be painful, become infected, bleed, and leave a scar. They are more likely in areas exposed to moisture or friction, such as the lips, neck folds, or nappy area.

A lesion near the eye may affect vision by blocking the visual field or changing the shape of the eye. Lesions involving the nose, lips, mouth, or airway may interfere with breathing or feeding. Large lesions can occasionally place extra strain on the circulation.

Port-wine stains on parts of the forehead or upper eyelid can sometimes be linked with changes affecting the eye or brain. This does not mean that every facial port-wine stain causes these problems. Its exact distribution helps determine whether eye or neurological assessment is needed.

Long-standing port-wine stains may become thicker and develop small areas that bleed after

minor injury. Visible marks can also affect self-esteem or lead to unwanted attention.

Prevention

Red birthmarks generally cannot be prevented. Most form because of blood vessel changes that happen before birth or during early infancy.

Nothing a parent eats, drinks, thinks, or does in an uncomplicated pregnancy has been shown to cause an ordinary vascular birthmark.

Although the mark itself cannot usually be prevented, early assessment can reduce the chance of complications from higher-risk haemangiomas. Protecting fragile skin from friction and following wound-care advice can also help reduce irritation or infection if an ulcer develops.

Living with it and what to expect

The course depends mainly on the type of birthmark.

Salmon patches on the face often become less noticeable during the first few years of life. A patch at the back of the neck may persist but is commonly covered by hair.

Infantile haemangiomas usually have a period of growth followed by slow shrinking, called involution . Fading can continue for several years. Some disappear with little visible change, while others leave loose skin, altered colour, small surface blood vessels, or fatty tissue.

Congenital haemangiomas follow a different course. Some shrink rapidly after birth, some shrink partly, and others remain. They should not be assumed to behave like infantile haemangiomas.

Capillary malformations grow in proportion with the body and usually remain for life. Port-wine stains may darken or thicken over the years. Laser treatment can lighten them, but maintenance treatment may sometimes be considered if colour returns.

Routine follow-up may involve photographs, measurements, skin checks, or specialist review. Many people with red birthmarks have no activity restrictions and lead otherwise typical lives.

When to get medical help

Arrange a routine medical appointment if a red mark is newly noticed, its type is uncertain, or it is changing. Early review is especially useful for a rapidly growing haemangioma in a young baby.

Prompt assessment is appropriate if the mark:

Seek emergency help for trouble breathing, severe or persistent bleeding that does not stop with firm pressure, a seizure, sudden weakness, loss of consciousness, or a major change in alertness.

Routine colour changes or gradual growth in proportion with the body are not usually emergencies. They can be discussed at a planned appointment.

- Is close to an eye, nose, mouth, ear, airway, or lower spine
- Grows quickly or becomes much thicker
- Develops pain, warmth, crusting, discharge, or an open sore
- Bleeds repeatedly
- Affects feeding, vision, hearing, movement, or passing urine or stool
- Is a large segment-shaped mark on the face or scalp

Common questions

Will my baby's red birthmark go away?

It depends on the type. Many salmon patches fade. Infantile haemangiomas usually shrink slowly after their growth phase, although they can leave skin changes. Port-wine stains and most other vascular malformations do not go away by themselves.

Is a red birthmark cancer?

Most red birthmarks are benign, meaning they are not cancer. A mark that behaves unusually, changes suddenly, or does not fit a typical pattern may need further examination to confirm what it is.

Why did the haemangioma appear after birth?

Infantile haemangiomas often become visible during the first few weeks of life rather than on the day of birth. This growth pattern is characteristic of this type of vascular tumour.

Can a port-wine stain be removed completely?

Laser treatment can often lighten a port-wine stain, but complete and permanent removal cannot be guaranteed. Results differ according to the mark's location, depth, colour, and response to treatment.

Does touching a red birthmark make it grow?

No. Normal touching does not cause vascular birthmarks to grow. Growth is related to the type

of blood vessel change. Fragile or ulcerated areas can bleed if rubbed or injured, so they may need protection.

Can red birthmarks run in families?

Most do not. They usually result from changes limited to the affected tissue. Rare inherited conditions can include vascular marks, but these are not the usual cause of an isolated red birthmark.

Sources

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