SYMPTOM

Single palmar crease

A single palmar crease is one line crossing the palm where two separate creases usually appear.

WHAT IT FEELS LIKE
Usually feels no different from any other palm

WHERE IT IS FELT
Across the palm of one or both hands

MOST COMMON CAUSES
Normal variation, family traits, early hand development

WHEN IT IS URGENT
A suddenly cold, blue, weak, or severely painful hand

USUALLY LASTS
Lifelong when present from birth

SEE A DOCTOR IF
It occurs with developmental, growth, or other physical differences

Overview

A single palmar crease is one line that runs across the palm. Usually, there are two separate major creases in this area. The crease may be present on one hand or both hands.

The medical term is single transverse palmar crease . An older term containing the word "simian" may appear in past medical records, but it is outdated and should be avoided.

This crease forms before birth. By itself, it is often a normal physical feature and does not affect how the hand works. It can run in families.

A single palmar crease can also occur alongside some genetic or developmental conditions. However, the crease alone cannot show whether you or your child has a medical condition. Doctors consider it only as one small part of a complete health and developmental assessment.

What it may feel or look like

A single palmar crease usually causes no pain, tenderness, or unusual sensation. It may be

noticed during a newborn examination, a routine appointment, or when comparing the two hands.

The line generally crosses most or all of the palm. Its depth and exact position can differ from one person to another. One hand may have a single crease while the other has the more usual pattern of two separate creases.

The fingers, thumb, grip, and wrist movement are usually normal. A single crease does not itself cause weakness or limit movement.

A line that appears different because the palm is swollen, injured, scarred, or affected by a skin condition is not necessarily a true single palmar crease. A true single transverse crease is generally present from birth, even if no one noticed it earlier.

Common causes

The most common explanation is normal variation. Human hands naturally differ in their lines, fingerprints, finger lengths, and other small features. Some healthy people have a single palmar crease without any related health concerns.

The pattern may also be familial, meaning that similar creases occur in other family members. It develops as the hand forms before birth and is not caused by anything you did after birth.

Less commonly, a single palmar crease is one of several physical findings associated with a chromosomal, genetic, or prenatal developmental condition. Examples include Down syndrome, trisomy 13, and fetal alcohol spectrum disorders. These conditions have many other possible features, and most cannot be identified from the hand crease alone.

The importance of the crease therefore depends on the wider picture. Growth, muscle tone, facial features, organ development, learning, and developmental progress provide much more useful information than one palm line.

There is no urgent medical condition caused by an isolated single palmar crease.

When to seek medical care

If the crease has been present from birth and there are no other concerns, it can usually be mentioned at a routine health appointment. No special visit is generally needed for the crease alone.

Book a routine appointment if a baby or child also has:

These findings do not confirm a diagnosis. They simply give a clinician a reason to assess the

child more fully.

Seek same-day medical advice for new palm or hand swelling, redness, warmth, worsening pain, or loss of movement. These symptoms are unlikely to be caused by the crease, but they may need treatment for an injury, infection, or another hand problem.

Seek emergency care for a hand that suddenly becomes cold, pale, blue, very painful, numb, or weak, especially after an injury. Sudden arm weakness with facial drooping or difficulty speaking also needs emergency care. These are circulation or nervous-system warning signs, not features of a single palmar crease.

- Delayed movement, speech, learning, or social development
- Unusually low muscle tone or feeding difficulties
- Concerns about growth
- Several other physical differences
- A family history of a genetic or chromosomal condition

How the cause is found

A clinician can identify the crease by looking at the palm. They may compare both hands and check finger movement, grip, skin, and circulation.

If the crease is the only unusual finding and the person is otherwise healthy, testing is usually unnecessary. The clinician may ask whether it has been present since birth and whether relatives have a similar crease.

For a baby or child, the assessment may also include growth measurements, muscle tone, feeding, hearing, vision, and developmental progress. Pregnancy and birth history may be discussed when relevant.

If other findings suggest a possible genetic or chromosomal condition, the clinician may offer referral to a genetics specialist. Genetic testing is considered according to the complete medical picture, not because of the palm crease alone. The purpose, limits, and possible results should be explained before testing.

Treatment and self-care

An isolated single palmar crease does not need treatment. Exercises, massage, creams, or surgery will not change the underlying crease pattern, and there is usually no reason to try to

change it.

Normal hand care is enough. If the skin is dry or cracked, an unperfumed moisturizer may help the skin, although it will not remove the crease.

When the crease appears alongside another condition, care is directed toward that condition and the person's needs. This might include routine developmental monitoring or support with feeding, movement, speech, hearing, or learning. The crease itself still does not require treatment.

What to expect

A single palmar crease that formed before birth usually remains throughout life. It may look more or less noticeable as the hand grows or the skin changes.

Most isolated single palmar creases do not affect hand strength, sensation, or everyday activities. No activity restrictions are needed because of the crease.

If there are other developmental or physical concerns, what happens next depends on their cause rather than on the palm line. Early assessment can help identify useful support, but the crease alone does not predict a person's health, abilities, or future development.

Common questions

Does a single palmar crease mean Down syndrome?

No. A single palmar crease is more often simply a normal variation. It can occur in people with Down syndrome, but it cannot diagnose the condition. Doctors look for a broader pattern of findings and use genetic testing when appropriate.

Can it appear later in life?

A true single transverse palmar crease forms before birth. It may only be noticed later. A new-looking line or change in the palm may instead be related to skin changes, swelling, scarring, or hand position.

Does having it on both hands matter?

A crease on both hands may attract more attention during an examination, but it still does not establish a diagnosis. Other health, developmental, and physical findings are more important.

Will it affect hand function?

Usually not. The crease is a skin-fold pattern and does not normally interfere with the muscles,

tendons, nerves, or bones that control the hand.

Should other family members check their hands?

You may notice similar crease patterns in relatives, but family members do not need medical testing solely because of this feature. A family history may be useful information if other health or developmental concerns are present.

Sources

- U.S. National Library of Medicine. Single palmar crease . MedlinePlus Medical Encyclopedia.
- Human Phenotype Ontology. Single transverse palmar crease, HP:0000954 . The Jackson Laboratory.
- Stanford Medicine. Extremities: Newborn Nursery Photo Gallery . Stanford School of Medicine.
- Bull MJ, Trotter T, Santoro SL, Christensen C, Grout RW; Council on Genetics. Health Supervision for Children and Adolescents With Down Syndrome . Pediatrics . 2022;149(5):e2022057010.