TEST

Skin turgor

A skin turgor test checks how quickly pinched skin returns to place.

WHAT IT MEASURES
Speed pinched skin returns to its usual position

SAMPLE
None; bedside skin examination

FASTING NEEDED?
No

HOW LONG IT TAKES
Less than one minute

RESULTS IN
Immediately; no laboratory processing

USED FOR
Assessing possible dehydration alongside other findings

MAIN LIMITATION
Age-related skin changes can resemble dehydration

Overview

Skin turgor describes the skin's elasticity: how easily it changes shape and how quickly it returns to its usual position. During the test, a healthcare professional gently pinches and releases a small fold of skin.

Skin that returns promptly is said to have normal turgor. Skin that stays raised or returns slowly may be described as having reduced turgor or "tenting."

Reduced skin turgor can occur when the body has lost fluid. However, it does not prove that you are dehydrated. Age, long-term sun exposure, skin conditions, body composition, and the part of the body tested can all change the result.

This is a bedside physical examination, not a laboratory test. It is usually interpreted with your symptoms, recent fluid losses, heart rate, blood pressure, mouth moisture, urine output, and sometimes blood or urine tests.

Why the test is ordered

Skin turgor may be checked when there is concern about dehydration or reduced circulating fluid volume. This can happen after vomiting, diarrhoea, fever, heavy sweating, burns, or difficulty drinking enough.

The test may also be part of an examination for someone who appears unwell, dizzy, weak, confused, or unusually sleepy. In babies and young children, it may be used during an assessment for gastroenteritis, which is an infection causing diarrhoea or vomiting.

A skin turgor check cannot identify the cause of fluid loss. It also cannot show whether a problem comes from water loss, bleeding, medicine use, kidney disease, or another condition.

Who should have the test

You may have this test if your symptoms or recent history suggest that you could have lost too much fluid. It can be performed in a clinic, hospital, care home, ambulance, or home visit.

It is suitable for adults and children, but its usefulness differs between groups. Older skin naturally becomes thinner and less elastic, making the test less reliable in older adults. In babies and children, clinicians assess skin turgor together with behaviour, drinking, urine output, breathing, eye appearance, and other signs.

Routine testing is not usually needed when you feel well and have no concern about fluid intake or loss.

How to prepare

No fasting or special preparation is required. You can usually eat, drink, and take your regular medicines as normal.

Tell the person examining you about recent vomiting, diarrhoea, fever, sweating, exercise, burns, reduced drinking, or changes in urination. Also mention diuretics like furosemide or hydrochlorothiazide , sometimes called water tablets, because they increase urine production.

Recent intravenous fluids, significant weight loss, pregnancy, swelling, or a skin condition may affect interpretation. Clothing may need to be moved so an appropriate area of skin can be examined.

What happens during the test

A healthcare professional selects an area of skin and gently holds a small fold between two

fingers. The skin is lifted briefly and then released. They watch how quickly it flattens.

The test site varies with age and clinical setting. The abdomen or forearm may be used in children and younger adults. The back of the hand can be misleading in older adults because normal ageing reduces elasticity there, so another site may be chosen.

The examination takes only a few seconds. More than one area may be checked if the first result is difficult to interpret.

Other parts of the assessment may include:

- Checking your pulse, blood pressure, breathing, and temperature
- Looking at your mouth, lips, eyes, and overall alertness
- Asking about thirst, fluid intake, vomiting, diarrhoea, and urination
- Measuring recent weight change
- Ordering blood or urine tests when needed

Understanding your results

There is no universal numerical reference range for skin turgor. The finding is usually recorded in words, such as normal, mildly reduced, reduced, or tenting.

If the skin returns promptly, the result is generally reassuring, but it cannot completely rule out dehydration. Mild or early dehydration may not cause an obvious change.

If the skin returns slowly or remains raised, fluid loss may be one explanation. The finding is more meaningful when it appears with other signs, such as a dry mouth, reduced urination, a fast pulse, low blood pressure, sunken eyes, or unusual tiredness.

This bedside test has no laboratory range. Interpretation can vary with age, sex-related skin differences, pregnancy status, medicines, the examination site, and the wider clinical context. If blood or urine tests are also performed, their ranges vary by laboratory.

What affects the results

Several factors can change skin turgor without meaning that you are dehydrated:

Recent exercise may lead to sweating and temporary fluid loss. Unlike some blood tests, coffee and the time of day do not directly distort the test, although anything affecting your fluid balance may influence the overall assessment.

- Age: Older skin contains less collagen and elastin, the materials that help it spring back.
- Sun damage: Long-term sun exposure can reduce skin elasticity.
- Test site: Skin on the hand may return more slowly than skin elsewhere, particularly in older adults.
- Technique: The size of the skin fold, how long it is held, and how closely the return is watched can affect the judgment.
- Recent weight loss: Loose skin may tent even when fluid levels are adequate.
- Swelling: Oedema, meaning fluid collected in tissues, can make the result difficult to interpret.
- Skin and connective-tissue conditions: Scarring or disorders affecting skin structure may alter elasticity.
- Pregnancy: Changes in skin tension and body fluid distribution may affect the examination.
- Medicines: Diuretics can contribute to fluid loss, while medicines or illnesses that cause swelling may mask it.
- Recent treatment: Drinking a large amount or receiving intravenous fluid may improve the finding before the underlying cause is resolved.

Accuracy and limitations

Skin turgor is a quick clue, not a precise measurement of body water. Research has not established one dependable accuracy figure that applies across children, younger adults, and older adults.

The test can miss dehydration, especially when fluid loss is mild or recent. In other words, the skin may return normally even though the person needs further assessment.

It can also suggest dehydration when fluid levels are adequate. This is more likely with older age, sun-damaged skin, major weight loss, or a condition that changes skin elasticity.

Results can differ between examiners because return speed is judged by eye. Using a different body site can also change the finding.

When a more dependable assessment is needed, skin turgor is combined with symptoms, vital signs, urine output, weight change, and other examination findings. Blood tests may assess electrolytes, such as sodium, and kidney function. No single blood result confirms every type of dehydration, so the complete clinical picture remains important.

Risks and complications

The test is non-invasive and has no significant medical risks. The brief pinch may cause minor discomfort, and very fragile skin may rarely bruise or become irritated.

What happens next

A normal finding may need no follow-up if you feel well and there are no other concerns. If you have ongoing vomiting, diarrhoea, fever, reduced drinking, or reduced urination, contact a healthcare professional for routine or same-day advice even if the skin test seems normal.

Further assessment may include repeated vital signs, fluid intake and urine measurements, weight checks, or blood and urine tests. Treatment is based on the cause and severity of fluid loss, not on skin turgor alone.

Seek urgent medical assessment if you cannot keep fluids down, are becoming increasingly weak or drowsy, have very little urine, or have persistent dizziness when standing.

Seek emergency help for fainting, severe confusion, difficulty waking, severe breathing difficulty, signs of shock such as cold mottled skin with marked weakness, or rapidly worsening symptoms. A baby or child who is very sleepy, unable to drink, or passing little or no urine also needs urgent assessment.

Common questions

Can I drink coffee before a skin turgor test?

Yes. There is no fasting rule. Coffee does not directly interfere with the examination, although large amounts of caffeine may increase urination in some people.

Does the time of day matter?

Usually not. Recent fluid intake, fluid loss, and your current condition matter more than the clock time.

Can I exercise beforehand?

You can, but recent strenuous exercise and sweating may temporarily reduce body fluid. Tell the healthcare professional how much you exercised and whether you replaced the lost fluid.

Can I test skin turgor myself?

You can observe how your skin returns after a gentle pinch, but self-testing is not a reliable

way to confirm or exclude dehydration. Age, skin site, and technique can easily mislead you.

Does slow skin return always mean dehydration?

No. Ageing, sun damage, loose skin after weight loss, swelling, and connective-tissue conditions can produce a similar result.

Can normal skin turgor rule out dehydration?

No. Mild or early dehydration may not change skin turgor. Symptoms, urine output, vital signs, and sometimes laboratory tests provide additional information.

Sources

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