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## **Patient information: Gangrene (The Basics)**

Written by the doctors and editors at UpToDate

**What is gangrene?** — Gangrene is a condition in which body tissue dies from not getting enough blood. It can cause changes in skin color, numbness or pain, swelling, and other symptoms. Gangrene is a serious condition. It can be life threatening.

There are several different types of gangrene:

- Dry gangrene – In this type, the tissue dries up and falls off. It is most common on the ends of the fingers and toes.
- Wet gangrene – In this type, the tissue swells up and gets blisters.
- Gas gangrene – This type happens when bacteria infect tissue and cause gas bubbles inside it.

**What are the symptoms of gangrene?** — Symptoms depend on the type of gangrene.

Symptoms of dry gangrene can include:

- Hard, dry skin and tissue
- Changes in skin color – Skin might look pale or very dark
- Skin that feels cooler than normal

It can be easy to tell the tissue with dry gangrene from healthy tissue. The area with dry gangrene looks very different from the healthy tissue.

Symptoms of wet gangrene can include:

- Tissue that looks wet
- Swelling
- Blisters
- Skin that looks dark
- Bad smell

Symptoms of gas gangrene can include:

- Severe pain
- A numb or heavy feeling in the area
- Confusion
- Feeling sick, like with the flu
- Fever
- Changes in skin color – Skin can turn brown, red, or purple.
- Blisters – These can look clear or turn red, purple, or blue.
- Tissue that makes a crackling sound when you press on it

**Should I see a doctor or nurse?** — See your doctor or nurse right away if you have a hard, numb area on a finger or toe. If you have diabetes, tell your doctor or nurse if you notice any skin changes on your feet or have a foot wound that does not heal. You might need treatment to prevent gangrene.

If you had surgery or an injury, see your doctor or nurse if your pain gets worse in that area, the skin changes color, or you start to feel sick. These could be signs of an infection that could cause gangrene.

**Will I need tests?** — Maybe. It depends on the type of gangrene and your situation. The doctor or nurse might be able to tell if you have dry or wet gangrene from doing an exam and learning about your symptoms.

You might also have the following tests:

- Imaging tests, such as a CT scan or MRI – These tests create pictures of the inside of the body. They can show gas in the tissue. This can be a sign of gas gangrene.
- Blood tests– These tests can look for signs of infection. The results can also tell doctors if gangrene or a different condition is causing symptoms.
- Tests to measure blood flow – These tests can show doctors where problems are happening in blood vessels and how serious the problems are.

**How is gangrene treated?** — Treatments include:

- Cutting away dead or dying tissue – This can sometimes keep gangrene from spreading. A doctor or nurse might need to do this every day for a while.
- A kind of surgery called “amputation” – In this surgery, a doctor removes toes, feet, or other body parts that have gangrene.
- Antibiotics given into a vein through a thin tube (called an “IV”)

**Can gangrene be prevented?** — If you have diabetes, you can reduce your chances of getting gangrene by keeping your blood sugar close to normal and taking good care of your feet. Having high blood sugar for a long time can cause nerve damage in your feet. You might not notice a foot injury, and then the injury can get infected. This can cause gangrene.

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