

# Biopsy: How Cancer Is Confirmed

In most cases, a biopsy is the only way to tell for sure if you have cancer. During a biopsy, a doctor removes a small sample of tissue, and a pathologist examines it under a microscope. Samples can be taken with a needle, through an endoscope, or during surgery.

This page is for anyone who needs a biopsy, or has just had one. It explains how the sample is taken, how you are kept comfortable, what happens with the results, and when to get help.

## The simple version

In most cases, a biopsy is the only way to tell for sure whether you have cancer. During a biopsy, a doctor removes a small sample of abnormal tissue. A pathologist then looks at that tissue under a microscope and runs other tests on the cells.

Scans and lab tests can point toward cancer. They usually cannot confirm it. **A biopsy lets a specialist look directly at the cells.** That is why it is so often the deciding test.

## How the sample is taken

The sample may be taken in several ways:

- **With a needle.** The doctor uses a needle to draw out tissue or fluid. This is how bone marrow aspirations and spinal taps are done. Some breast, prostate, and liver biopsies use it too.
- **With endoscopy.** The doctor puts a thin, lighted tube called an endoscope into a natural body opening, such as the mouth or anus. Some or all of the abnormal tissue can be removed through it. A colonoscopy looks at the colon and rectum. A bronchoscopy looks at the windpipe, airways, and lungs.
- **With surgery.** A surgeon removes an area of abnormal cells during an operation. In an *excisional* biopsy, the surgeon takes out the whole area, often with a little normal tissue around it. In an *incisional* biopsy, the surgeon takes out only part of it.

## Comfort during a biopsy

You may be given a sedative or anesthesia, depending on the type of biopsy. A sedative helps you relax and stay very still, or sleep. Anesthesia keeps you from feeling pain. It comes in three forms:

- **local anesthesia** — loss of feeling in one small area of the body
- **regional anesthesia** — loss of feeling in a part of the body, such as an arm or leg

- **general anesthesia** — loss of feeling and a complete loss of awareness, like a very deep sleep

## What happens after the biopsy

The pathologist writes up the findings in a pathology report. That report holds the details of your diagnosis. It can also help show which treatment options might work for you. Sometimes the tissue is tested further for tumor markers or biomarkers. If the biopsy shows cancer, you may have more tests. Those find the stage and help your team plan treatment.

Results often arrive in stages. NCI says the pathologist typically sends the report to your doctor within 10 days. Molecular test results may come in separate reports, so they can take longer — see how long biopsy results take. It is worth asking whether the sample is expected to be enough for all the testing that is planned, and what would happen if it is not.

## When to get help sooner

Bleeding and infection are the main risks MedlinePlus lists. Ask your team what is normal for your type of biopsy before you go home.

- **Call 911 or go to an emergency department if** you have heavy bleeding from the biopsy site that does not stop with steady pressure, chest pain, trouble breathing, or you feel faint or pass out. Do not drive yourself.
- **Call your care team right away if** you have a temperature of 100.4°F (38°C) or higher, chills, or the biopsy site becomes red, swollen, warm, or leaks pus or fluid. If you are having chemotherapy, do not wait for a callback: a fever at that temperature during treatment is a medical emergency, so use your team's urgent number or go straight to an emergency department ([CDC](https://www.cdc.gov/cancer-preventing-infections/patients/fever.html) ([cdc.gov/cancer-preventing-infections/patients/fever.html](https://www.cdc.gov/cancer-preventing-infections/patients/fever.html))).
- **Call your care team within a day or two if** pain at the site is getting worse instead of better, or a bruise or lump there keeps growing.

## Sources

- [National Cancer Institute — Tests and Procedures Used to Diagnose Cancer](https://www.cancer.gov/about-cancer/diagnosis-staging/diagnosis) ([cancer.gov/about-cancer/diagnosis-staging/diagnosis](https://www.cancer.gov/about-cancer/diagnosis-staging/diagnosis))
- [National Cancer Institute — Pathology Reports](https://www.cancer.gov/about-cancer/diagnosis-staging/diagnosis/pathology-reports-fact-sheet) ([cancer.gov/about-cancer/diagnosis-staging/diagnosis/pathology-reports-fact-sheet](https://www.cancer.gov/about-cancer/diagnosis-staging/diagnosis/pathology-reports-fact-sheet))
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- [MedlinePlus — Biopsy](https://medlineplus.gov/ency/article/003416.htm) ([medlineplus.gov/ency/article/003416.htm](https://medlineplus.gov/ency/article/003416.htm))
- [CDC — Fever and Cancer Treatment](https://www.cdc.gov/cancer-preventing-infections/patients/fever.html) ([cdc.gov/cancer-preventing-infections/patients/fever.html](https://www.cdc.gov/cancer-preventing-infections/patients/fever.html))

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**Source:** National Cancer Institute ([cancer.gov/about-cancer/diagnosis-staging/diagnosis](https://cancer.gov/about-cancer/diagnosis-staging/diagnosis))

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**Online:** [cancerexplained.org/diagnosis/biopsy](https://cancerexplained.org/diagnosis/biopsy)

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