TEST

Pregnancy test

A pregnancy test checks urine or blood for a hormone made during pregnancy.

WHAT IT MEASURES
Human chorionic gonadotropin, a hormone made after implantation

SAMPLE
Urine or blood

FASTING NEEDED?
No

HOW LONG IT TAKES
Minutes at home; under 10 minutes for blood collection

RESULTS IN
Minutes to one day; laboratory turnaround varies

USED FOR
Confirming pregnancy and screening before some treatments

MAIN LIMITATION
Testing too early can give a false-negative result

Overview

A pregnancy test looks for human chorionic gonadotropin, usually called hCG . This hormone is produced after a fertilized egg attaches to the lining of the uterus, a process called implantation.

Pregnancy tests can use urine or blood. Home tests use urine. Clinics may use a urine test, a blood test, or both.

A qualitative test gives a positive or negative result. A quantitative blood test measures the amount of hCG present. Measuring the amount can be useful when a healthcare professional needs to follow how the level changes over time.

A positive test supports that pregnancy tissue is present, but it cannot show where the pregnancy is located or whether it is developing as expected. Ultrasound and repeat blood tests may be needed for those questions.

Why the test is ordered

You may take or be offered a pregnancy test to:

An ectopic pregnancy develops outside the uterus, most often in a fallopian tube. A pregnancy test alone cannot diagnose or rule out this condition.

Although hCG is best known as a pregnancy hormone, it is sometimes measured for other medical reasons. Those uses require different interpretation.

- Check for pregnancy after a missed or unusually light period
- Investigate symptoms such as nausea, breast tenderness, or tiredness
- Check before certain medicines, operations, scans, or treatments
- Help assess bleeding or pain when pregnancy is possible
- Monitor hCG after fertility treatment or a recent pregnancy
- Support evaluation of a possible ectopic pregnancy or early pregnancy loss

Who should have the test

Consider testing if pregnancy is possible and your period is late. If your cycles are irregular or you do not know when your period is due, follow the timing instructions supplied with the test.

Testing may also be appropriate before starting a medicine or having a procedure that could affect a pregnancy. The healthcare service arranging the treatment will explain whether testing is needed.

If you have had an hCG injection as part of fertility treatment, ask your fertility clinic when to test. Testing too soon after the injection may detect the medicine rather than a pregnancy.

A test may be recommended even if you use contraception. No contraceptive method prevents every pregnancy, and missed pills or problems with a device can change the chance of pregnancy.

How to prepare

You do not need to fast. Eating, coffee, and ordinary physical activity do not directly change hCG levels.

For a home urine test, check the expiry date and read the instructions before collecting the sample. Different brands have different collection methods and reading times.

If you are testing early, first-morning urine may be helpful because it is usually more concentrated. Avoid drinking a large amount of fluid just before testing, as this can dilute the

urine.

Tell the healthcare professional interpreting the result about fertility medicines containing hCG, a recent pregnancy, miscarriage or abortion, and any significant kidney disease. These can affect what the result means.

What happens during the test

For a home urine test, you either hold the test in the urine stream or dip it into urine collected in a clean container. You then place it on a flat surface and read it within the time stated in the instructions. A control line or symbol should appear to show that the test worked.

A clinic urine test is similar, but staff test the sample for you.

For a blood test, a healthcare professional places a needle into a vein, usually in your arm, and collects a small tube of blood. The appointment generally takes only a few minutes.

Blood testing can measure lower amounts of hCG than many urine tests. It may therefore be useful very early in pregnancy or when the amount needs to be followed over time.

Understanding your results

A positive result means hCG was detected. Pregnancy is the most common explanation in someone who could be pregnant, but the result may need confirmation depending on your circumstances.

A negative result means hCG was not detected above that test's cutoff. It does not always rule out pregnancy, especially if you tested before or soon after your expected period.

An invalid home test has no control line or gives a display error. Repeat it with a new test and follow the instructions carefully.

A faint test line that appears within the stated reading time is usually treated as positive. A line appearing after that time may be an evaporation or drying line and should not be interpreted.

Laboratories use their own methods and reporting cutoffs. Ranges and interpretation vary by laboratory, age, sex, pregnancy status, medicines, kidney function, and clinical context. A single hCG number cannot reliably determine the pregnancy's location or predict its outcome.

What affects the results

The most common reason for a misleading negative result is testing too early. Implantation

and the rise in hCG do not happen at exactly the same time in every pregnancy.

Other factors include:

Most antibiotics like amoxicillin or doxycycline , contraceptive pills, pain medicines, and ordinary vitamins do not cause a positive pregnancy test. However, biotin supplements can interfere with some laboratory testing systems. Tell the laboratory or healthcare professional about supplements and medicines rather than stopping them on your own.

- Diluted urine: Drinking a lot shortly before testing can reduce the hCG concentration
- Incorrect timing: Reading the test too soon, too late, or outside the instructed window can mislead
- Expired or poorly stored tests: Heat, moisture, or age may affect how a home test works
- Fertility medicine containing hCG: An injection can cause a positive result for a period after treatment
- Recent pregnancy: hCG may remain detectable after birth, miscarriage, abortion, or treatment of an ectopic pregnancy
- Kidney problems: Reduced clearance or unusual urine composition can occasionally complicate interpretation
- Age-related hormone production: Small amounts of hCG may occur around or after menopause
- Assay interference: Rare antibodies in the blood can interact with some laboratory tests and produce a misleading result
- Very high hCG levels: Rarely, extremely high levels overwhelm an assay and cause a false-negative result, called the hook effect

Accuracy and limitations

Pregnancy tests are more likely to detect pregnancy after the expected period than before it. Accuracy also relies on using the test correctly and checking the result at the stated time.

A test can miss a pregnancy when hCG is still low, the urine is diluted, or the device is used incorrectly. Repeating the test later may detect a rising level.

A test can say positive when there is no continuing pregnancy. Possible reasons include a very early pregnancy that has stopped developing, hCG remaining after a recent pregnancy, fertility medicine, assay interference, or less commonly a medical condition that produces hCG.

Urine testing is usually suitable for checking whether pregnancy is likely. A quantitative blood

test is better when the amount of hCG matters or when results need to be compared over time.

Neither urine nor blood testing shows where a pregnancy is located. Ultrasound is the better test for that question when the pregnancy is far enough along to be seen. Even then, dates, symptoms, scan findings, and changes in hCG may all need to be considered together.

Risks and complications

A urine pregnancy test has no direct physical risk.

A blood draw may cause brief pain, a small bruise, or minor bleeding at the needle site. Some people feel light-headed or faint during blood collection.

The main non-physical risk is acting on an incorrect result. Repeat testing or clinical assessment can help when the result does not fit your timing or symptoms.

What happens next

After a positive home test, arrange routine follow-up with a healthcare professional or pregnancy service. They can discuss prenatal care, medicines, health conditions, and your options. Do not stop prescribed medicine without advice, because stopping suddenly can sometimes be harmful.

If the test is negative but your period has not started, repeat it after a few days using the test instructions. Seek routine medical advice if tests remain negative and your period is still absent.

Contact a healthcare service promptly if pregnancy is possible and you have vaginal bleeding or persistent abdominal or pelvic pain, even if the test is negative. A very early ectopic pregnancy may not yet produce enough hCG for a urine test.

Seek emergency care for severe or worsening abdominal pain, shoulder-tip pain, fainting, marked dizziness, difficulty staying awake, or heavy bleeding. These symptoms need urgent assessment and should not wait for another home test.

Common questions

Can I drink coffee before a pregnancy test?

Yes. Coffee does not alter hCG, but several drinks may dilute your urine. If you are testing early,

use first-morning urine or limit fluids immediately beforehand.

Does the time of day matter?

It matters most when testing before or close to your expected period. First-morning urine is often more concentrated. Later in pregnancy, the time usually matters less.

Can I exercise beforehand?

Yes. Ordinary exercise does not change hCG enough to affect the result. Stay hydrated normally, but avoid drinking an unusually large amount immediately before a urine test.

How soon can I take a pregnancy test?

Some tests are designed for use before a missed period, but testing that early is more likely to miss a pregnancy. Testing from the day your period is expected generally gives a more dependable result.

Can medicines cause a positive result?

Medicines containing hCG, usually used during fertility treatment, can do so. Most other medicines, including contraceptive pills and antibiotics, do not contain hCG.

What does a faint line mean?

A faint line appearing within the test's stated reading window is usually considered positive. Repeat the test or seek confirmation if the line appeared late, the control line is missing, or the result is unclear.

Sources

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