

## C-Peptide (Blood)



### Does this test have other names?

Connecting peptide insulin, insulin C-peptide, proinsulin C-peptide

### What is this test?

This blood test looks at how well your body's makes insulin. It's used to help diagnose blood sugar disorders.

Your body needs the hormone insulin to move sugar through your bloodstream to your cells for energy. A healthy pancreas makes equal amounts of insulin and the protein C-peptide. By measuring your C-peptide, your healthcare provider can also learn about your insulin level.

### Why do I need this test?

Measuring C-peptide can show whether you have type 1 or type 2 diabetes. In type 1 diabetes, your body doesn't make any insulin. In type 2 diabetes, either your body doesn't make enough insulin, or your cells can't use it normally.

If you have diabetes, the C-peptide test can show how well your treatment is working.

The C-peptide test may also be done to find the cause of low blood sugar. Or to check the activity of tumors that make insulin.

### What other tests might I have along with this test?

Your healthcare provider also might order:

- **Blood glucose test.** This measures the amount of glucose (sugar) in your blood
- **Glucagon test.** This measures the level of another hormone made by the pancreas. Glucagon helps raise blood sugar.
- **A1c test.** This is also known as glycosylated hemoglobin blood test. This is a measure of your blood glucose levels over the past 3 months. It shows how well your diabetes is being controlled.
- **Insulin assay.** This is a test that directly measures your insulin levels.

### What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

Test results are given in nanograms per milliliter (ng/mL). Normal results are within the range of 0.5 to 2.7 ng/mL but can vary depending on the lab that is used for testing.

A high level of C-peptide could mean a number of conditions. These include a kidney problem or an insulinoma, a tumor of the insulin-making cells in the pancreas. It could also mean you need to adjust the amount of insulin you take.

A level of C-peptide that's lower than normal means that your body isn't making enough insulin or that your pancreas isn't working correctly.

## How is this test done?

The test needs a blood sample, which is drawn through a needle from a vein in your arm.

## Does this test pose any risks?

Taking a blood sample with a needle carries risks that include bleeding, infection, bruising, or feeling dizzy. When the needle pricks your arm, you may feel a slight stinging sensation or pain. Afterward, the site may be slightly sore.

## What might affect my test results?

Taking insulin for your diabetes can raise your C-peptide levels. Your C-peptide level can also change if your kidneys aren't working correctly. The timing of your most recent meal may affect your C-peptide level.

## How do I get ready for this test?

Follow your healthcare provider's directions for not eating or drinking anything before the test. The test may also be done after you've eaten. Tell your provider about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drug use.

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