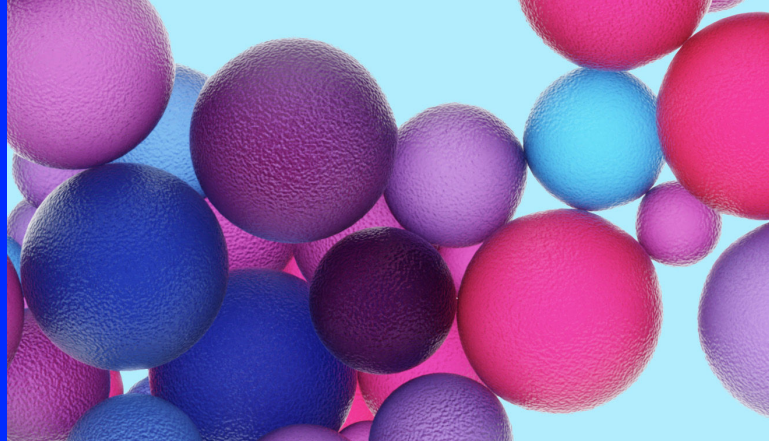




What is C-Peptide?

C-peptide (connecting peptide) is a small piece of a larger protein that is generated when insulin is made by the pancreas. C-peptide and insulin are made by beta cells at the same time and in equal amounts and can be measured by a blood test.

What Does the C-Peptide Test Tell You?

C-peptide is used to measure how much insulin your body is making on its own. While insulin is used by the body and cleared out quickly, C-peptide lingers in the blood longer, allowing for more accurate measurements of how much insulin your body is making.

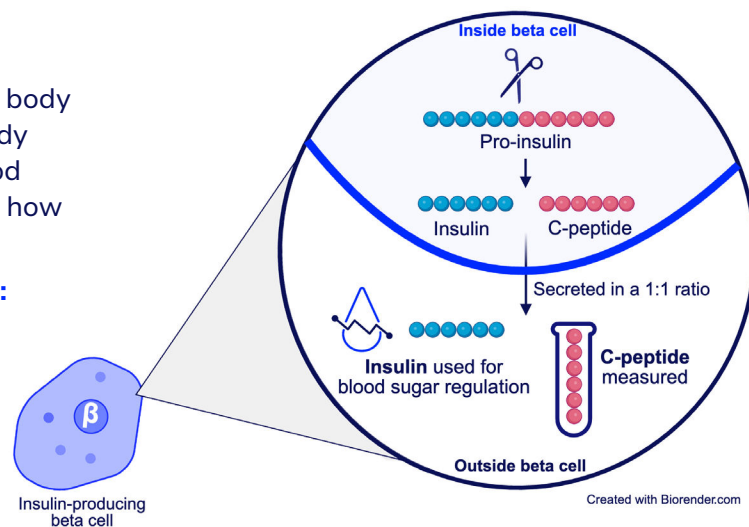
Having a measurable amount of C-peptide means:

Your body still makes some insulin, and it may be easier to keep blood sugar in target range.

You are less likely to have severe low blood sugar episodes.

You may have a lower risk of diabetes complications over time.

You may be eligible for therapies that may keep your body producing insulin longer.



When Might a C-Peptide Test be Useful?

- C-peptide testing may be useful to determine if a person is eligible for a therapy which may stop or delay the progression of T1D. Therapies that can do this are called disease-modifying therapies (DMTs).
- Specific amounts of C-peptide are needed to qualify for DMTs and for certain clinical trials.
- C-peptide testing may be useful when it is unclear if a person has T1D or another type of diabetes.

Should I Get My C-Peptide Checked?

Your healthcare provider can help determine whether a C-peptide test is right for you and when it should be performed.



How Is C-Peptide Measured?

C-peptide is usually measured with a blood test. Your healthcare provider will give you specific instructions about preparing for the test. You may be asked to do one or more of the following:



Fast or refrain from eating for a set time



Eat a meal and have the test within a few hours of eating.



Drink a sweet beverage at the office or lab before the test is done, as part of a Mixed Meal Tolerance Test (MMTT) or an Oral Glucose Tolerance Test (OGTT).

How Do C-Peptide Levels Change the Longer You Have Type 1 Diabetes (T1D)?

The autoimmune changes begin in a person's body for months or even years before T1D symptoms show up. In early stages of T1D, the remaining beta cells are able to make enough insulin and C-peptide to keep blood sugars in a normal range. As time goes on and more beta cells are lost, the body is no longer able to make enough insulin or C-peptide.

It is very common for people who have had T1D longer to make very little of their own insulin and C-peptide. Some people with very low C-peptide levels may have challenges with low blood sugars or keeping blood sugars in a target range, even with modern diabetes technology.

What Can Affect My C-Peptide Results?

It is important to note that C-peptide levels depend on a lot of factors (like illness, diet, or exercise) and may fluctuate over time. Generally, C-peptide levels decrease as T1D progresses.

C-peptide results may be impacted by:



Food or fasting: C-peptide usually goes up after you eat and goes down when you fast.



Kidney function: Kidney complications can affect how C-peptide shows up in the blood test.



High or low blood sugar: Recent diabetic ketoacidosis (DKA) or hypoglycemia at the time of the test can affect the accuracy of the results.

Can Anything Help Protect My Beta Cells and My Body's Ability to Make Insulin?

Disease-modifying therapies (DMT) are medicines that slow down or stop the autoimmune attack on beta cells, helping keep them healthy longer and delaying the progression of T1D. DMTs are only helpful while the body is still making significant amounts of C-peptide, and there is a very short period of time to act after diagnosis. Once C-peptide is very low or undetectable, there may not be enough beta cell function left for the therapy to preserve. Early in your diagnosis, if you are producing enough C-peptide, there may be treatment options available to preserve the cells that are still making insulin.

Teplizumab is currently the only approved DMT for T1D. For people 1 year and older, teplizumab may delay progression from Stage 2 to Stage 3 T1D allowing more time before insulin therapy is needed. In children ages 8 to 17, when used within 8 weeks of diagnosis of Stage 3, teplizumab may help the body continue to produce its own insulin longer. Insulin therapy is still needed when teplizumab is used in Stage 3. Teplizumab does not cure T1D and ongoing monitoring by healthcare providers is still needed.

