

## C-PEPTIDE TEST

### Introduction:

C-Peptide is a substance produced by Beta cells in the pancreas. It is released at the same time and in about equal amounts as that of Insulin, but C-peptide does not influence blood sugar. It is a useful marker of insulin production because C-peptide tends to remain in the blood longer than insulin.

### What is the pancreas?

The pancreas is a large gland that lies alongside the stomach and the small bowel. It is about 15 cm long, divided into the head, body, and tail.

### What are the functions of the pancreas?

The pancreas plays an important role in digestion converting the food into fuel for the body's cells.

The two main functions of the pancreas are:

- Exocrine function which helps with digestion.
- Endocrine function for regulating blood sugar.

### Why is a C-PEPTIDE test done?

C-peptide test can be performed for any of the following reasons:

- To distinguish between Type 1 or Type 2 diabetes
- To investigate insulin resistance
- To find out the cause of hypoglycemia (low blood glucose)
- To check if diabetes treatment is effective.



- To monitor insulin production after removal of pancreatic tumor (insulinoma)

## Specimen/Sample Type:

- Blood sample
- Fasting is required for 8 hours before testing.
- Levels of C-peptide will be measured along with blood glucose level at the same time.

## Normal Ranges:

Different testing laboratories may have different normal ranges. **0.26 – 1.39 nmol/L**

## What do the results mean?

The possible indication of C-peptide results:

### Interpretation of the Lab Results

Low Level	High Level
Type 1 Diabetes	Type 2 Diabetes
Addison's Disease	Insulin Resistance
Liver Disease	Cushing's Syndrome
Treatment not working well	Tumor of the Pancreas
Needs Insulin Treatment	

## References:

- [www.webmd.com](http://www.webmd.com)
- <https://medlineplus.gov/>
- <https://columbiasurgery.org/pancreas/pancreas-and-its-functions>