Name of the test
Calcitonin

Alternative name(s) of the test
Thyrocalcitonin

What is this test used for?
This test measures the amount of calcitonin in the blood. Calcitonin is a hormone produced by C-cells in the thyroid gland. It lowers calcium levels in the blood and suppresses bone resorption by inhibiting osteoclastic activity.
Calcitonin levels increase during C-cell hyperplasia, medullary thyroid cancer and MEN 2 (Multiple Endocrine Neoplasia type 2). The calcitonin test is used to help diagnose these conditions.

When is the test ordered?
The test is ordered to diagnose and monitor C-cell hyperplasia and medullary thyroid cancer. Calcitonin test is also used for screening in patients with a family history of MEN 2.

How is this test performed?
A blood sample is taken from a vein.

How to prepare for the test
Fasting may be needed several hours prior to the test. Some drugs may affect the test result. It is important to consult your doctor and receive more detailed instructions about the test preparation needed.

Interpretation of results
If calcitonin levels are low, C-cell hyperplasia and medullary thyroid cancer are less likely to be the cause of symptoms.
High calcitonin levels may be due to C-cell hyperplasia, medullary thyroid cancer or MEN 2. However, additional tests (for example, thyroid biopsy, ultrasound, etc) are usually required as well, since calcitonin levels may be also increased due to cancers of lung, breast, pancreas and some other types of tumors.
After successful treatment of medullary thyroid cancer, calcitonin levels should stay low. If it increases again, this might be a sign of the cancer recurrence.