

ZRT Free T4 Blood Spot Test

Price: \$65.00

Short Description

Free T4 affects tissue function in the body, while bound T4 does not. This test is often used in conjunction with TSH testing to measure the extent of hyper- or hypothyroidism.

Description

Thyroxine (T4) is the main hormone produced by the thyroid. Total T4 measures the overall level of T4 output by the thyroid gland.

Most of the thyroxine (T4) in the blood is attached to a protein called thyroxine-binding globulin. Less than 1% of the T4 is unattached. A [total T4 blood test](#) measures both bound and free thyroxine. **Free thyroxine** affects tissue function in the body, but bound thyroxine does not.

A total T4 or free T4 test is primarily ordered in response to an abnormal TSH test result. Sometimes the T4 will be ordered along with a TSH to give the doctor a more complete evaluation of the adequacy of the thyroid hormone feedback system.

Levels of **free T4** in hypothyroidism may remain within normal range for a period of time while total T4 levels are low in the body's attempt to maintain homeostasis. So, a hypothyroid diagnosis could be delayed if only free T4 is being looked at. These tests are usually ordered when a person has symptoms of hyperthyroidism or hypothyroidism.

Thyroxine (T4) is the predominant hormone produced by the thyroid gland. It is an inactive prohormone, which converts to triiodothyronine (T3) within cells.

Free T4 is the non-protein-bound fraction of the T4 circulating in the blood, representing about 0.04% of the total circulating T4. This

blood spot test is a direct assessment for freeT4, and therefore a reliable indicator of circulating free T4.

Free T4 levels reflect the amount of T4 produced by the thyroid that is available to tissues for local conversion to the active thyroid hormone, T3. Inadequate T4 production can be caused by iodine deficiency, autoimmune reactions, or stress. Low Thyroid-Stimulating Hormone (TSH) combined with low free T4 levels indicates hypothyroidism, while low TSH and high free T4 levels indicate hyperthyroidism. High TSH and low free T4 are signs of a thyroid gland disease, such as autoimmune thyroiditis (Hashimoto's Disease).

Many medications—including estrogen, certain types of birth control pills, and large doses of aspirin—can affect **total T4** test results and their use should be discussed with the doctor prior to testing. In general, **free T4** levels are not affected by these medications.

[See our Total T4 Test here.](#)

The lab will email you within 3-5 business days after they receive the samples for on-line access to your results.

Once you have your results, read our [Interpreting Results](#)

article and consider consulting with a practitioner for next steps. Find out what you need to know and start your path towards recovery today.

Test Includes

Lab	
ZRT	Yes
Thyroid	
fT4	Yes
Sample Type	
Blood Spot	Yes