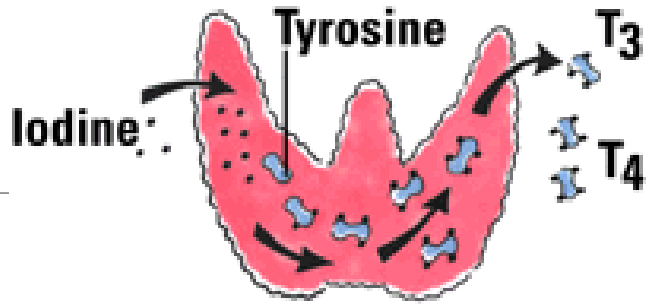
Thyroid Tests

Healthy Hormones

Measuring TSH

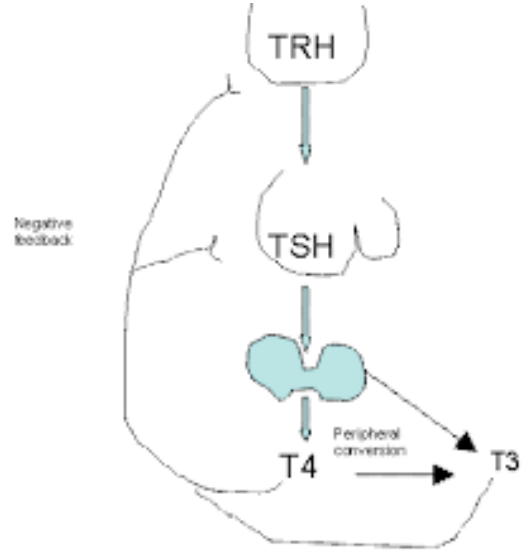
- TSH rises when thyroid hormones decline and visa versa
- Measuring TSH as an initial test is recommended
- Using a radioimmunoassay technique, circulating TSH in the blood can be measured very accurately
- High TSH can indicated hypothyroidism
- Low TSH can indicate hyperthyroidism

T4 and T3



- Both T4 and T3 can be measured in a blood test
- It is best to measure these along with TSH
- This can give a more accurate picture of what is happening in the thyroid
- Elevated TSH with low T4 indicates hypothyroidism
- Sometimes a person can have low or high TSH and normal T4 or T3 – this means they may be developing thyroid issue

Ideal Levels



- "Normal" TSH range can be from .5 – 4.5 or 4.7 depending on the standards that have been set
- Ideal TSH should be 2.0
- T4 (normal range 7 – 21) and T3 (normal range 3.5 - 5.7) should be in the middle of the range on the lab test
- Many clients will present with symptoms such as weight gain, low iron, hair loss despite a normal result for thyroid levels
- Many factors can influence thyroid activity despite "normal" findings.

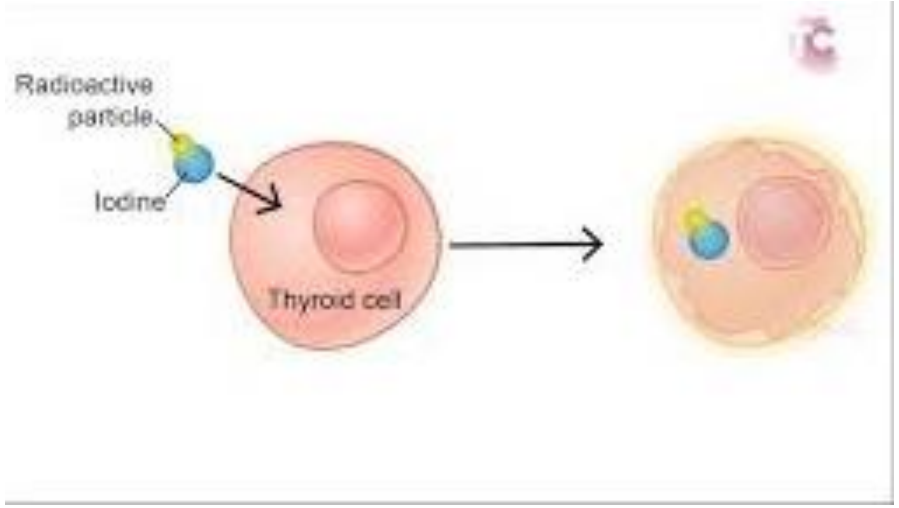
Thyroid Hormone Binding Proteins

- Blood test for thyroid hormones bound to protein which makes them inactive
- Only free or unbound are considered active
- High estrogen can raise the levels of the binding proteins
- The thyroid will compensate by producing more T4 and T3 so total T3 and T4 in the blood will be higher
- However, active free T4 and T3 and TSH will remain the same

- TSH levels are helpful is identifying the real level of free thyroid hormone

Radioactive Iodine Uptake & Scan Test

- Small amount of radioactive iodine is taken orally
- 20-25% should be taken up by the thyroid
- Given 24 hours before the test and then the radioactivity is measured
- Help for distinguishing if it is a serious diseases like Grave's or just thyroiditis
- The thyroid can also be scanned to get a picture of the thyroid

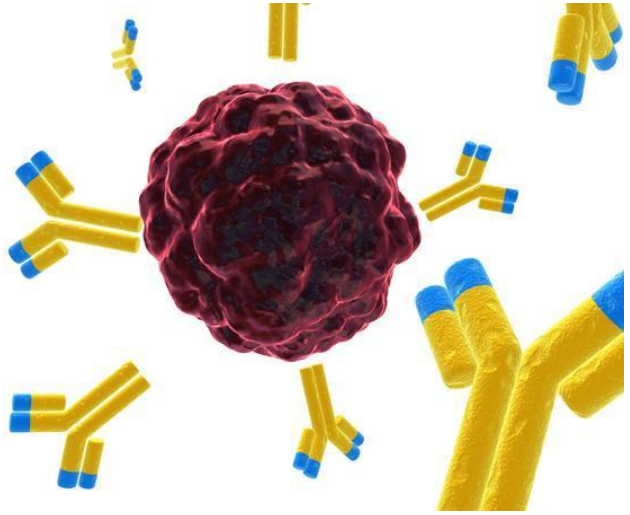


Thyroid Imaging

- Ultrasound can be used to see the size and shape of the thyroid or if nodules are present
- CAT scans and MRIs can also be used but are not as precise as ultrasounds
- Ultrasound can distinguish more detail about the nodules including the potential risk of cancer

Other Tests

- Test for thyroid antibodies which are blood proteins
- They react against of the patient's own proteins in the thyroid gland
- A blood test used to determine Thyroid antibodies is used to diagnose a thyroid autoimmune disease
- Thyroid biopsy is used for nodules to determine if cancerous



Dried Blood Spot

- Pinprick – Less Invasive
- More stable that drawn blood especially for TSH value
- TSH is very sensitive and may register lower than it is due to time drawn vs when the test is run
- Is within scope but labs that give nutrition professionals account may not have this test

ZRT Labs: http://www.zrtlab.com/Patients/Standard-Tests

Saliva thyroid hormones test do exist but not easy to find

Testing

- It is important to know this in case your client has had testing and you want some perspective
- You have the hormone questionnaire to help you understand if the thyroid is sub-optimal
- Supporting the thyroid nutritionally is always helpful
- Supporting other areas that may affect the thyroid is always going to be your best path