How many people have thyroid issues?

• At least 27 million Americans have a thyroid problem, but don't know it yet

• 25% of people over age 60 have low thyroid problems

• One in 5 women at some point in their lives will have thyroid problems

• Many professionals believe 30 to 40% of Americans have low thyroids
Hashimoto’s disease

Autoimmune hypothyroidism (Hashimoto’s disease), is the most common thyroid disease in the United States.

It is normally an inherited condition that affects approximately 14 million Americans and is about 7 times more common in women than in men.
If left untreated, decreased thyroid function can cause:
• Elevated cholesterol levels
• Subsequent heart disease
• Infertility
• Muscle weakness
• Osteoporosis

Hypothyroidism is commonly a co-morbidity factor in:
• Cancer
• Schizophrenia,
• Chronic hepatitis C infection
• Adrenal insufficiency
• Bipolar disorders
• and other psychiatric illnesses
Why is hypothyroidism not diagnosed more frequently?

• Most medical doctors only rely on blood tests
• Blood tests are a spot check and not a complete picture of thyroid and related issues
• Too many people that fit within the bell curve for “normal” are actually outside of what is normal for them as an individual
What is the purpose of the thyroid gland

The thyroid is the master gland of metabolism.

When it doesn’t function well, it can affect every aspect of your health; in particular, weight, depression and energy levels.

One half of the gland can be under-functioning while the other half can be normal or even hyper-functional.
What are some symptoms?

• Missing outer parts of eyebrows
• Humped back shoulders
• Back of hands face forward when walking
• Cold hands and feet
• Constipation
• No energy/fatigue
• Weight gain or not able to lose
• Heavy menses
• Pale, dry skin
• Hoarse voice
• Elevated blood cholesterol levels
• Muscle aches and joint stiffness
• Muscle weakness
• Increased sensitivity to climate change; particularly the cold
• Depression
Why do so many people have thyroid problems?

1. Lack of iodine (huge issue)
2. Adrenal fatigue
3. Estrogen dominance
4. Lack of basic nutrition
5. Halogens – bromine, fluorine, chlorine
6. Candida
7. Poor liver health
8. Mercury
9. Misdiagnosis
10. Prolonged intake of refined carbohydrates
Why is iodine deficiency common in the United States?

1. The body produces no iodine
2. There is no organ other than the thyroid that can store large quantities of iodine
3. Over farming has depleted the iodine content
4. The amount of iodine added to salt is insufficient
5. Many people purposely reduce salt
The three primary types of thyroid hormones measured

T3 (tri-iodothyronine)

T4 (thyroxine) The accuracy of T4 tests can be affected by estrogen levels.

TSH (Thyroid-stimulating hormone) is the most sensitive test for detecting primary hypothyroidism and hyperthyroidism. Normal values usually run from 0.4 to 4.0 (mIU/L). Elevated values may indicate hypothyroidism, and lower values may indicate hyperthyroidism.

TSH is on a feedback loop with circulating levels of T4. This simply means that if the level of T4 is insufficient, the pituitary will increase output of TSH.

Pituitary gland -> TSH -> Thyroid -> T4 -> T3
Reverse T3

Reverse-T3 (rT3) is a metabolically inactive thyroid hormone.

Under normal conditions it has been estimated that 45 – 50% of the daily production of T4 is transformed into rT3.

Reverse-T3 can be seen as a sort of "blocker molecule" that fits in and occupies the T3 receptors on the cell membrane.

T3 speeds up metabolism and reverse-T3 slows down metabolism. If there is a sudden need to slow down metabolism or to reduce energy production, we make more rT3 from T4.

Pituitary gland -> TSH -> Thyroid -> T4 -> T3 🖤 rT3
What increases reverse-T3?

As the liver has a primary influence on circulating levels of thyroid hormones. The following have been shown to decrease circulating T3 levels while increasing circulation of rT3:

- Liver dysfunction and/or disease
- Liver in need of nutritional support and detoxification
- Heavy metals (cadmium and lead)

The following have also been shown to decrease circulating T3 levels while increasing circulation of rT3:

- High stress and elevated cortisol levels
- Selenium deficiency / Poor nutrition
- Fasting / Calorie restriction
- Lack of exercise or excessive exercise
- Alcohol intake

There is a point to which enough of these factors can add up to mean significant thyroid dysfunction.
What are the Tests for Thyroid?

**Blood test** - TSH, T4, T3 (no level of TSH rules out hypothyroidism)

T3 goes up and down throughout the course of the day. T4 is relatively constant. TSH goes up at the end of the day, calling for more thyroid. So supporting thyroid at evening meal is better because it follows circadian rhythms. The test for reverse T3 is as unreliable as the test for TSH.

**Basal Metabolism Temp. Test** - known as Barnes Temp. Test

**Iodine Spot and Loading test**

Spot test - how much is being urinated from your intake for the day. Can be an indicator for cancer. Thyroid cancer has doubled in America and according to AMA it is due to lack of iodine.

Loading Test - give 50 mg to see how much comes out in urine. Measure how much is being retained to monitor how much body is starving for iodine.
Basal Metabolic Temperature Assessment

The following test can be used to detect a deficient thyroid. The temperature test is an accurate test for determining sub functional thyroid as has been documented in medical journals.

1. Over the course of three days, take your oral temperature in the afternoon with a thermometer. A shake down thermometer is more accurate, while a digital can be off by 0.2 degrees. It should read very close to 98.6. If below 98.6, it could indicate an under active or hypo-thyroid.

2. Additionally, place the thermometer beside the bed before going to sleep.

3. Immediately upon waking, place the thermometer deep in your armpit and leave in place (3 minutes if digital and 10 minutes if using a shake down mercury thermometer). The less movement you make, the more accurate the test. Lie as still as possible. (The beeper may sound but the temperature should continue to be monitored. Record below.

4. For menstruating women: you can begin measuring your temperature at anytime during your cycle. However, the most accurate readings occur within the first seven days following the start of menses. Women will get the most accurate reading when not menstruating. Your basal body temperature should be between 97.8 and 98.2. Axillary (armpit) is roughly one point lower than oral readings. The following axillary readings are indicative of thyroid states:

   - 97.8 - 98.2 Normally functioning thyroid
   - Above 98.2 Hyperthyroid or possible infection
   - Below 97.8 Possible hypothyroid

   If below 97.8 for three consecutive days, you may have an under-active thyroid, particularly if you have other symptoms of hypothyroidism.
Difference in Armour Thyroid and Synthetic Thyroid Medications?

Synthetics just have laboratory created T4 and don’t contain T3. (T3 is the workhorse)

Armour is actual thyroid from pigs. It has T4 with T3 at about 80 to 20% ratio.

One expert believes that the best ratio is 98% T4 and 2% T3.

It doesn’t take much T3, but it must be present.

Synthetics don’t seem to resolve dry skin issues from low functioning thyroid.
Female and Livers

The female liver is less efficient than the male liver in producing T3 from T4, as is also the female thyroid gland.

T3 is the active thyroid hormone produced mainly in the liver from T4. The amount of glucose in liver cells regulates the enzyme that converts T4 to T3.

This means that hypoglycemia or diabetes (where glucose doesn't efficiently enter cells) will contribute to hypothyroidism. A piece of fruit plus adequate protein between meals can help the liver produce the hormone.
Thyroid and Cholesterol

T3 is involved in the conversion of cholesterol to progesterone and bile acids.

High cholesterol is closely connected to hypothyroidism from low T3 levels and from a liver in need of support/detoxing.
Effect of Estrogen and Progesterone

Estrogen blocks the release of hormone from the thyroid gland, and progesterone facilitates the release.

Therefore an estrogen excess or progesterone deficiency tends to cause enlargement of the thyroid gland, thus contributing to a hypothyroid state.
Thyroid Suppressing Foods

Thyroid-suppressing foods are:
raw cabbage, kale, Brussels sprouts, watercress, rutabaga, broccoli, cauliflower, peanuts and Soya beans.

Cooking these foods reduces the thyroid-suppressing qualities.

Raw peanuts or soybeans should not be eaten because they contain even higher amounts of anti-thyroid chemicals.
Coconut Oil

An important function of coconut oil is that it increases energy production that has been blocked by the unsaturated fatty acids. Since the polyunsaturated fatty acids inhibit thyroid function at many levels, coconut oil can promote thyroid function simply by reducing those toxic effects. Coconut oil added to the diet can increase the metabolic rate.

Coconut oil does not require the enzymes required for metabolizing vegetable oils, thus consumption of vegetables oils inhibit and prevent T4 to T3 hormone conversion.
### Body’s Need for Iodine or Iodide

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About Iodine

1. Every cell in the body contains and utilized iodine
2. The thyroid gland contains more iodine than any other organ in the body
3. Iodized salt contains 77 mcg per gram of salt with the RDA being 150 mcgs
4. Iodine does help with Hashimoto’s and can help restore the gland
5. Iodine is a great antiseptic for kidneys for UTI
6. Japanese women on average get 13.8 grams of iodine per day and don’t have pregnancy problems we have in America
7. 50 mg per day is a decent amount for severely deficient people with 13 mg as a minimum for maintenance
8. The thyroid and breast alone need approximately 12 mg per day
9. It can take 3 to 6 months of iodine supplementation to reach saturation to restore iodine deficiencies
10. Lack of iodine in early pregnancy is big reason for ADD, retardation, and low IQ of children, and a big reason for miscarriages
11. Iodine has a detoxification effect upon the body. One day of supplementing with 50mg can increase bromide excretion by 50% and fluoride excretion by 78%.
Other Tidbits

1. Bromine is a halogen (fluoride, and chloride) that binds to iodine receptors, thus interfering with iodine utilization.
2. Bromine also binds to iodine receptors in the breast and is probably a carcinogen to the breast.
3. Bromide is in our breads and now being put into soft drinks.
4. Bromide can cause paranoid psychosis.
5. Iodine supplementation can cause selenium deficiency because selenium is needed for T4 to T3 conversion.
6. 80% of breast cancer is improved and many disappear in about 21 days with sufficient iodine supplementation.
7. PCOS is greatly helped by iodine.
8. Iodine supplementation does help Hashimoto’s Disease.
9. Stomach needs iodine to produce HCl.
10. Supplementing with iodine can reduce size of nodules on thyroid.
11. Sea salt alone is poor in iodine.
**Coleus** (*Coleus forskohlii*) mimics the effect of TSH in regard to iodide uptake and promotes secretion of T3 & T4.

**Bacopa monniera** (also known as Brahmi) exhibits thyroid stimulating abilities through an increase of T4 serum concentrations.

**Ashwagandha** (*Withania somnifera*) is another plant that directly affects production of thyroid hormones. Animal studies during the late 1990s demonstrated its ability to directly act on thyroid tissue to bring about a rise in serum levels of thyroid hormones.

**Guggulsterone** has shown ability to increase conversion of T4 to T3 in the liver (the principle site of T3 generation).
What to do for your thyroid?

**Nutrition**

- Don’t eat foods that lower thyroid or cook them well
- Get sufficient Selenium, Zinc, Tyrosine, Copper, coconut oil
- T4 to T3 conversion is selenium dependant
- Supplement with Iodine and Iodide – may need to start out with about 50 mg day

**Herbs**

- Sea Kelp *(the best source)* and Bladderwrack are excellent dietary sources of iodine.
- Support thyroid and T4 to T3 conversion with Ashwagandha, Coleus, Bacopa, Guggulsterone

**Support Adrenals and Liver**
What to do for your thyroid?

Realize that yeast/candida and parasites can infest the thyroid gland. That must be dealt with in order to regain thyroid health. Infestation can be determined with Energetic Response Testing. If you have chronic yeast/candida issues and under functioning thyroid, you should suspect infestation.

Remember that there are really almost two thyroids, one on the right and one on the left side of the body. One side may be weak and the other side is carrying the load of both. Eventually the stronger side will probably get tired.

Overtaxing the adrenal gland with chronic stress will lower thyroid function and metabolism. The body is trying to conserve energy reserves by lowering thyroid output and by increasing reverse T3. There is a feed back loop between pituitary, thyroid, and adrenals. (called pituitary, thyroid, adrenal axis)
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