AFib and Thyroid Function

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The Connection Between AFib and Thyroid Function

Your thyroid gland is located over your voice box in your throat. It controls your metabolic rate, which means it is responsible for how fast or slow all of the processes in your body occur. If your thyroid is healthy, the processes occur at an optimal rate.

Studies have shown that thyroid function has an impact on the frequency with which atrial fibrillation occurs. This is important information if you have a diagnosis of either AFib or thyroid disease.

Hypothyroidism

If your thyroid is not producing enough hormones; your metabolic rate will slow down. This condition is known as hypothyroidism. When hypothyroidism is present, you may feel tired. Your skin and hair may be dry and fall out. You may feel sluggish and gain weight.

If you suffer from hypothyroidism you may also experience bradycardia, which is a heart rate below sixty beats per minute. Depression may occur. Your cholesterol and triglyceride levels may be elevated.

The most common treatment for hypothyroidism is supplementation with thyroid pills or synthetic thyroid hormones. Hypothyroidism is often not recognized. Your thyroid function may be diminished without symptoms being apparent.

Hyperthyroidism

If your thyroid produces an excess of hormones, then all of the processes in your body will speed up. This is known as hyperthyroidism. A sign of hyperthyroidism is a feeling of everything racing. Your heart beat may increase, you may experience palpitations, and AFib may develop. You may lose weight and your eyes may bulge. Feeling jittery and anxious is common. You may need surgery, radiation or medication to relieve your condition.

The Hormonal Connection to Thyroid Function

Your thyroid gland produces hormones. They are called thyroxine, T3; and idothyronine, T4. Your hypothalamus and pituitary gland work with your thyroid gland to ensure that the optimal level of thyroid hormones circulate in your bloodstream. If your hypothalamus detects that you do not have enough thyroid hormones in your blood stream, it sends a message to your pituitary gland, which is located in your brain, to produce more hormones. Your pituitary gland secretes a hormone, thyroid stimulation hormone, TSH, to notify the thyroid gland that more thyroid hormones are needed.

Doctors and other health care professionals are able to determine the levels of thyroid hormones in your

bloodstream by measuring levels of T3, T4 and TSH. They use these markers to diagnose thyroid health and disease. A treatment plan is created based upon the levels of these hormones in your blood.

The Research

Researchers studied more than 500,000 people over a ten-year period to see if AFib was related to thyroid function. They looked at individuals who had normal thyroid function, hypothyroidism, and hyperthyroidism.

They also included individuals who were described as having subclinical hypothyroidism – people with elevated levels of TSH, but normal levels of T3 – and subclinical hyperthyroidism – low levels of TSH, but normal levels of T3. Signs of subclinical hyperthyroidism include an elevated pulse rate, abnormal heart beats, and changes in cardiac function.

Next page: more on the research concerning AFib and thyroid function, and what it means for you.

The Research

The researchers discovered that people who had low levels of TSH were the most likely to develop AFib. The lower the levels of TSH, the more the risk of AFib increased. This means that people who have hyperthyroidism, or sub clinical hyperthyroidism have an increased risk of AFib occurring.

Hypothyroidism is much more common than hyperthyroidism. What this means is that if you are one of the many millions of people who have hypothyroidism, you are not at an increased risk of developing AFib. However if you have an overactive thyroid, you are at an increased risk of AFib occurring.

The researchers found that the risk of developing AFib due to thyroid problems was greater in younger adults than in elderly individuals. They state that when people at high risk are treated with antithyroid drugs for hyperthyroidism, the increased risk of developing AFib goes away.

The researchers stress that it is important for people to be screened for thyroid disease as part of routine physical examinations. One of the problems that they addressed is that many healthcare practitioners fail to treat subclinical thyroid problems. In the researchers' opinions, treatment of subclinical hyperthyroidism is important.

They discovered that among people diagnosed with subclinical hyperthyroidism, the risk of developing AFib increased after one year. According to the researchers, even people who are in the high normal range of thyroid function are at an increased risk of developing AFib. They state that people who have high normal thyroid function, subclinical hyperthyroidism, and hyperthyroidism should be regularly screened to see if atrial fibrillation is present.

I agree with their recommendations and believe that educating at risk people of the signs and symptoms of AFib should be a routine part of patient education.

Your Thyroid Gland and Heart

If you suffer from hypothyroidism you may develop changes in the structure of your heart, known as cardiomyopathy. You are at risk for developing hardening of the arteries, and accumulating excess fluid in the tissues of your heart.

In addition to being at risk for developing AFib, you are more likely to develop other cardiovascular problems if you suffer from hyperthyroidism. These include abnormal heart beats and tachycardia, which means an increased pulse rate. Your heart may beat in an erratic pattern. It may enlarge. Some people who have hyperthyroidism suffer from chest pain, also known as angina, due to not enough oxygen being available for the heart muscle.

What Does This Mean for Me?

If you have any diagnosis of thyroid illness, check with your health care provider to see what your current hormone levels are. Ask for a cardiac evaluation. Discuss the findings of this research with your healthcare provider if you have reduced levels of TSH, signs of hyperthyroidism, or symptoms of hypothyroidism that are not being treated.

If you have been diagnosed with AFib and do not know what caused it; ask your health care provider to check your thyroid function.

Complications of thyroid disease, including AFib, are preventable. The first step is to learn about the current status of your heart and thyroid.