

Thyroid

The thyroid gland is made up of two lobes, one on each side of the windpipe just under the voice-box. The two lobes are connected to a small interconnecting mass of tissue. If for some reason the thyroid gland enlarges, it is known as a “goiter.”

The thyroid is one of the endocrine glands. The endocrine glands secrete chemical compounds into the body for various types of control. These compounds are known as hormones, internal secretions, or chemical messengers. The endocrine glands are also known as the ductless glands of the body because their secretions are put into general circulation, rather than sent through a duct to a specific area to influence only a portion of the body.

There is considerable interplay between the endocrine glands. For example, the thyroid is stimulated to produce its hormone – called “thyroxin” – by a portion of the pituitary gland (another endocrine gland) by way of one of its “thyrotrophic” hormones. The thyroid, in turn, has influence over the reproductive glands and their hormone production, as well as control over a portion of the adrenal glands.

There are two major control systems in the body – the nerve system and the endocrine system. There is an interplay between these two systems. The nerve system controls the glands of the endocrine system; in turn, the glands have an influence on the nerve control of body function.

Modern science is learning more and more about the control of these two very complex systems. However, there certainly is a great deal more to be learned about these systems and their continual interplay.

When a thyroid involvement is suspected, the entire endocrine system and the nerve system should be evaluated because of this interplay.

One of the chief activities of the thyroid gland is to regulate the body’s metabolism. Metabolism means, basically, “the rate at which the body builds up and tears down.” In other words, it is the speed at which the body lives. When the thyroid is not functioning correctly, the first – and most prominent – symptoms develop as a result of the change in metabolism.

Hypothyroidism

Hypothyroidism means the thyroid is no longer as active as it should be. The term “hypo” means “under” – thus under-thyroid.

One of the major symptoms of hypothyroidism is fatigue. Fatigue is a generalized symptom; it is present because of the many lowered activities resulting from thyroid hormone deficiency.

Because of lowered metabolic activity, there is a tendency to gain weight which does not correlate with the individual’s food intake and physical activity.

Protein is the major building block of tissue growth. Thyroxin, the hormone from the thyroid gland, increases the utilization of protein within the body. When a hypothyroid condition is present, protein is not deposited as effectively in the tissues. As a result, a child with a thyroid deficiency does not develop adequately. In the adult, tissue health suffers significantly because of hypothyroidism. All body tissues, with only a few exceptions, are involved.

There is a process in the body which breaks protein down into sugar for aid in sugar balance. This process is called “gluconeogenesis.” It does not work adequately in the presence of hypothyroidism. Thyroxin also has an influence on the rate of sugar absorption from the gastro-intestinal tract; consequently there is some control over how much sugar is absorbed from the food which is eaten. Another effect of thyroxin on the body’s sugar utilization is its ability to increase the rate of glucose utilization by the cells. Anyone who has a sugar handling problem should have his thyroid evaluated because of its significant role in sugar absorption, utilization, and the conversion of other factors to sugar.

The breakdown of fat to sugar is also influenced by thyroxin. Thyroxin decreases the quantity of circulating fats in the blood, and also the quantity of fats in the liver. Because of the role of thyroid gland secretions in the control of fat utilization, any individual who has an elevated triglyceride level in his blood or a congested liver should have his thyroid evaluated.

Some of the body’s minerals are regulated by thyroxin. Of particular note is calcium. Thyroxin increases calcium removal by the kidneys. There is another hormone which comes from the thyroid and parathyroid glands which has a bearing on the deposition of calcium in the bones. The parathyroid glands are four small glands located adjacent to the thyroid gland, and are not part of the thyroid gland.

Symptoms

Symptoms indicated the need for thyroid evaluation are: extreme tiredness, sluggishness, decreased heart rate and blood pressure, and increased weight. There may be

constant fatigue upon dieting, constipation, mental fatigue, thin and slow-growing hair, scaliness of the skin, and a frog-like, husky voice. Emotional symptoms may include going to pieces easily, crying, and dislike of working under pressure. There may be associated menstrual problems, constant feeling of fullness, swelling – especially in the face – increases cholesterol levels, and brittle, easily broken fingernails. Symptoms of hypothyroidism are widespread because the thyroid gland affects the metabolism of the body tissues.

Hyperthyroidism

Hyperthyroidism is over-activity of the thyroid gland and, consequently, too much thyroxin in the blood. “Hyper” means “over” – thus, over-thyroid. The symptoms of this condition are exactly opposite those of hypothyroidism; they are in the nature of increased metabolism. Symptoms can be nervousness, inability to sleep, and increased heart and cardiac output. There may be thin skin, fine features, and poor balance when standing on one leg. The individual may have an increased appetite, decreased weight, and erratic, flighty behavior.

Examination

There are several methods of examining the thyroid. Each has its advantages and disadvantages.

Blood Tests

Blood tests are commonly used; there are several types. The general disadvantage of blood tests is the effect that different medications and nutritional supplements have on the test results. The treatment factor used by the doctor, either to supplement or improve thyroid function, may render the test inappropriate while the patient is on that therapeutic regime. Consequently, dosage must be regulated by how the patient feels rather than by determining exactly the level of function.

Achilles Tendon Reflex Test

This test measures – to the millisecond – muscle contraction upon nerve stimulation. The speed of muscle action is directly proportional to thyroid activity. This test can be used while a patient is on a therapeutic regime, because it basically measures body activity rather than chemicals in the body.

Chiropractic has several ways of testing the thyroid by muscle tests to evaluate different energy patterns within the body.

Thermal Testing

Your doctor may have you keep a record of your temperature as recorded in the axilla area. Temperature is recorded upon awakening in the morning, before getting up. The temperature recorded in this manner is directly

proportional to body metabolism, and is a method of testing body activity.

Treatment

Natural or artificial thyroid hormone has been administered for many years as a supplemental therapy for thyroid activity. When the thyroid gland is unable to produce thyroxin, this therapy may be necessary.

If the problem is hyperthyroidism and too much thyroxin, anti-thyroid drugs are used.

If possible, the best approach is to return the thyroid to normal function by improving the body’s energy patterns and/or nutritional supplementation. Chiropractic is geared toward this end. This approach is best because of the ability of the normal body to regulate thyroxin up and down as the body needs it. When medications are used for supplemental thyroid or anti-thyroid effects, there is no control to regulate the up and down levels necessary from hour to hour during a day. This interferes with the intricate interplay among the body’s glands, and the glands’ interplay with the nerve system.

Whatever treatment approach is used for thyroid function, it is important to have a periodic review to determine the effects of the treatment.