



# How the Thyroid Gland Can Affect Your Weight

## Patient Education Sheet

This sheet focuses on the effects of the thyroid gland on a person's weight gain or weight loss.

### **An Overview of Thyroid Hormone and Weight**

- Thyroid hormone affects metabolic rate.
- A patient with a normal functioning thyroid who takes thyroid hormone to lose weight may develop hyperthyroidism (too much thyroid hormone), a condition that may lead to potentially harmful consequences, such as cardiovascular problems.
- Patients with a normal functioning thyroid who take thyroid hormone to lose weight often have a small weight decrease caused by muscle mass decrease, not loss of fat.

### **The Thyroid Gland—The Basics**

- The thyroid is a butterfly-shaped gland located at the base of the neck that lies on either side of the windpipe. It produces and releases thyroid hormone.
- Thyroid hormone affects every cell in the body and controls most of the body's functions.
- The amount of thyroid hormone made by the thyroid gland is regulated by the pituitary gland and the hypothalamus in the brain.
- The pituitary gland releases thyroid-stimulating hormone (TSH), which signals the thyroid to produce more thyroid hormone. When the pituitary gland senses that there is the right amount of thyroid hormone in the body, it will decrease thyroid hormone production.
- Physicians can measure the health of the thyroid gland by measuring levels of TSH.
- Too little thyroid hormone production causes a condition known as hypothyroidism; too much thyroid hormone production causes a condition known as hyperthyroidism.

### **Hypothyroidism and Hyperthyroidism**

- When a patient has hypothyroidism, he or she may feel tired and cold and may have a slow heartbeat, unexpected weight gain (not more than 10 lb.), depression, constipation, muscle aches, fluid retention, high cholesterol, decreased fertility, or hair loss.
- Patients with hyperthyroidism may feel jittery, may be less tolerant to heat, and may experience weight loss.
- Hyperthyroidism can also cause osteoporosis, atrial fibrillation (irregular heartbeat), nervousness, muscle weakness, or sleeping difficulties.

### **Obesity as a Glandular Problem**

- A common misconception in the past was that the thyroid gland was responsible for obesity.
- Researchers have found no evidence to support the idea that obesity is related to thyroid gland dysfunction.
- Taking thyroid hormone for obesity treatment is not safe and does not work.

### **More Information**

- Patients who have further questions should contact their physician.