



# The Importance of Consistent Thyroid Hormone Therapy

## Patient Education Sheet

This sheet focuses on the importance of consistent levothyroxine sodium therapy for the effective management of thyroid disorders.

### The Thyroid Gland—The Basics

- The thyroid is a butterfly-shaped gland located at the base of the neck with lobes 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 Mild Thyroid Failure

- When a patient has hypothyroidism, he or she may feel tired and cold, have a slow heartbeat, or feel depressed.
- Mild thyroid failure is a mild form of hypothyroidism. In patients who have mild thyroid failure, the thyroid hormone levels are normal, but the TSH level is elevated.
- Patients with mild thyroid failure often do not show any obvious signs or symptoms, but untreated mild thyroid failure may lead to hypothyroidism.

### Hyperthyroidism and Mild Hyperthyroidism

- Patients with hyperthyroidism may feel jittery and may experience nervousness, a rapid heartbeat, or unexplained weight loss.
- Patients with mild hyperthyroidism have normal thyroid hormone levels and a decreased TSH level. Untreated mild hyperthyroidism can progress to hyperthyroidism, which may lead to potentially harmful consequences, such as cardiovascular disorders.

### Treating Thyroid Disorders

- When a patient has low levels of thyroid hormone, a

doctor may ask the patient to take a synthetic thyroid hormone called levothyroxine sodium, which mimics the hormone that the thyroid gland is having difficulty producing.

- Levothyroxine sodium stabilizes thyroid hormone levels in the blood and maintains a patient's TSH levels.
- Levothyroxine sodium is prescribed for several thyroid problems, including hypothyroidism and mild thyroid failure, and is also used to treat patients with thyroid cancer.

### Importance of Maintaining Normal TSH Levels

- TSH levels must be kept within a very narrow range at all times.
- Failure to keep TSH levels within that range may cause several problems, including a return of the symptoms the patient had before treatment, such as tiredness, constipation, muscle cramps, or weight gain. In some cases, TSH levels falling outside of the normal range can lead to even more serious consequences such as cardiovascular disease.

### Importance of Remaining on One Levothyroxine Sodium Treatment

- The easiest way for patients to keep TSH levels steady and to avoid a return of symptoms is to stay on the same brand of thyroid hormone that was prescribed by their physician throughout treatment.
- When patients are switched to another brand of thyroid hormone, or a generic version of their brand-name drug, it may be slightly different than the brand they are currently taking. Even slight differences between thyroid hormone drugs can change TSH levels and cause symptoms to return.

### Steps to Follow if Your Doctor Switches You to Another Thyroid Drug

- If you are switched to another levothyroxine sodium drug, the American Thyroid Association recommends that you ask your doctor to check your TSH levels after 6 to 12 weeks to make sure that the new drug is keeping your TSH levels within the normal range.
- If you notice that you are starting to have the problems you had before starting treatment (for example, tiredness or weight gain) after switching thyroid medications, you should call your doctor and report your symptoms.

### More Information

Patients who have further questions should contact their physician.