

## Thyroid Disease and Diabetes

Diabetes and thyroid disease are both endocrine, or hormone, problems. When thyroid disease occurs in someone with diabetes, it can make blood glucose control more difficult.

The thyroid is a butterfly-shaped gland in your lower neck just beneath your skin. It regulates your body's metabolism, the processes of using and storing energy, by releasing a substance called thyroid hormone. If it produces too much thyroid hormone, your metabolism quickens (hyperthyroidism), too little and your body functions slow down (hypothyroidism).

### Hyperthyroidism Symptoms

- Pounding heart
- Quick pulse
- Increased sweating
- Weight loss despite normal or increased appetite
- Shortness of breath when exercising
- Diarrhea
- Muscle weakness or tremors
- Trouble concentrating

- Change in menstrual periods
- Thick skin on the knees, elbows, and shins

### Hypothyroidism Symptoms

- Fatigue
- Sluggishness
- Depression
- Feeling of being cold even when others feel warm
- Constipation
- Weight gain unrelated to increase in eating
- Low blood pressure
- Slow pulse

### Effects on Diabetes

**Hyperthyroidism.** When your metabolism quickens, your medicines go through your body quicker. Your blood glucose level may rise because your usual dosage does not stay in your body long enough to control it.

Hyperthyroidism and low blood glucose can be hard to tell apart. If you are sweating and having tremors from hyperthyroidism, you may think you have low blood glucose and eat extra food, causing your blood glucose to rise. Using your glucose meter to

verify low blood glucose levels can help you avoid this problem.

**Hypothyroidism.** When your metabolism slows, your blood glucose level may drop because your diabetes medicine doesn't pass through your body as quickly as usual and so stays active longer. In hypothyroidism, it is often necessary to reduce your dose of diabetes medicines to prevent low blood glucose.

### If You Think You Have Thyroid Disease

Tell your health care provider about any symptoms you have. A physical exam and simple blood tests can identify hyper- or hypothyroidism.

If you have hyperthyroidism, medicines and other treatments can help slow your metabolism by controlling the release of thyroid hormone. If you have hypothyroidism, your health care provider can prescribe thyroid hormone pills to speed up your metabolism. You will need follow-up blood tests every few months to adjust your dosage of thyroid hormone.



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