

anticipate this change. Thereafter dosage should be closely monitored with a goal TSH in the lower half of the trimester-specific normative range, if available, or <2.5 mIU/L which allows for reserve if additional LT4 dosage increases are required as pregnancy progresses. However, it is important to recognize that the normal TSH range in pregnancy for the second and third trimesters is not significantly different from the nonpregnancy reference range. However, serum TSH decreases in the late first trimester, and if trimester-specific ranges are not available, an appropriate range for 7–12 weeks' gestation can be approximated by decreasing the upper limit of the nonpregnant reference range by 0.5 mIU/L (~ 4.0 mIU/L) and the lower limit by 0.4 mIU/L (~ 0.1 mIU/L).

After delivery, LT4 doses typically return to prepregnancy levels. Pregnant women should be counseled to separate ingestion of prenatal vitamins and iron supplements from LT4.

Elderly patients may require 20% less thyroxine than younger patients. In the elderly, especially patients with known coronary artery disease, the starting dose of LT4 is 12.5–25 $\mu\text{g/d}$ with similar increments every 2–3 months until TSH is normalized. In some patients, it may be impossible to achieve full replacement despite optimal antianginal treatment. *Emergency surgery* is generally safe in patients with untreated hypothyroidism, although routine surgery in a hypothyroid patient should be deferred until euthyroidism is achieved.

Myxedema coma still has a 20–40% mortality rate, despite intensive treatment, and outcomes are independent of the T_4 and TSH levels. Clinical manifestations include reduced level of consciousness, sometimes associated with seizures, as well as the other features of hypothyroidism ([Table 383-3](#)). Hypothermia can reach 23°C (74°F). There may be a history of treated hypothyroidism with poor compliance, or the patient may be previously undiagnosed. Myxedema coma almost always occurs in the elderly and is usually precipitated by factors that impair respiration, such as drugs (especially sedatives, anesthetics, and antidepressants), pneumonia, congestive heart failure, myocardial infarction, gastrointestinal bleeding, or cerebrovascular accidents. Sepsis should also be suspected. Exposure to cold may also be a