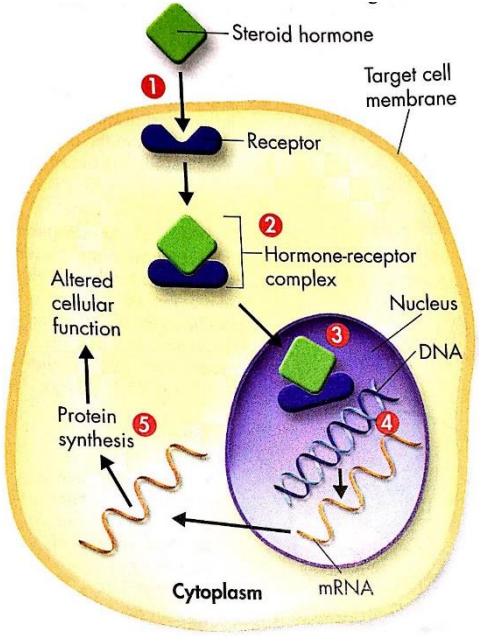


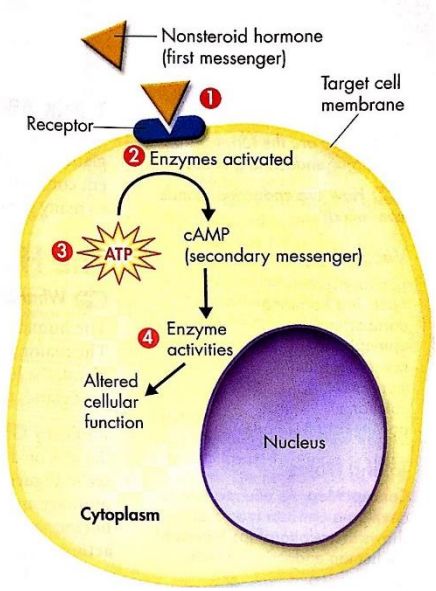


1. A steroid hormone enters a cell by passing directly across the cell membrane.
2. Once inside, the hormone binds to a receptor (found only in the hormone's target cells) and forms a hormone-receptor complex.
3. The hormone-receptor complex enters the nucleus of the cell, where it binds to regions of DNA that control gene expression.
4. This binding initiates the transcription of specific genes to messenger RNA (mRNA).
5. The mRNA moves into the cytoplasm and directs protein synthesis.

1. A nonsteroid hormone binds to receptors on the cell membrane.
2. The binding of the hormone activates enzymes on the inner surface of the cell membrane.
3. These enzymes release secondary messengers such as calcium ions, nucleotides, and even fatty acids to relay the hormone's message within the cell. One common secondary messenger is cAMP (cyclic AMP), which is produced from ATP.
4. These secondary messengers can activate or inhibit a wide range of cell activities.



## Endocrine System

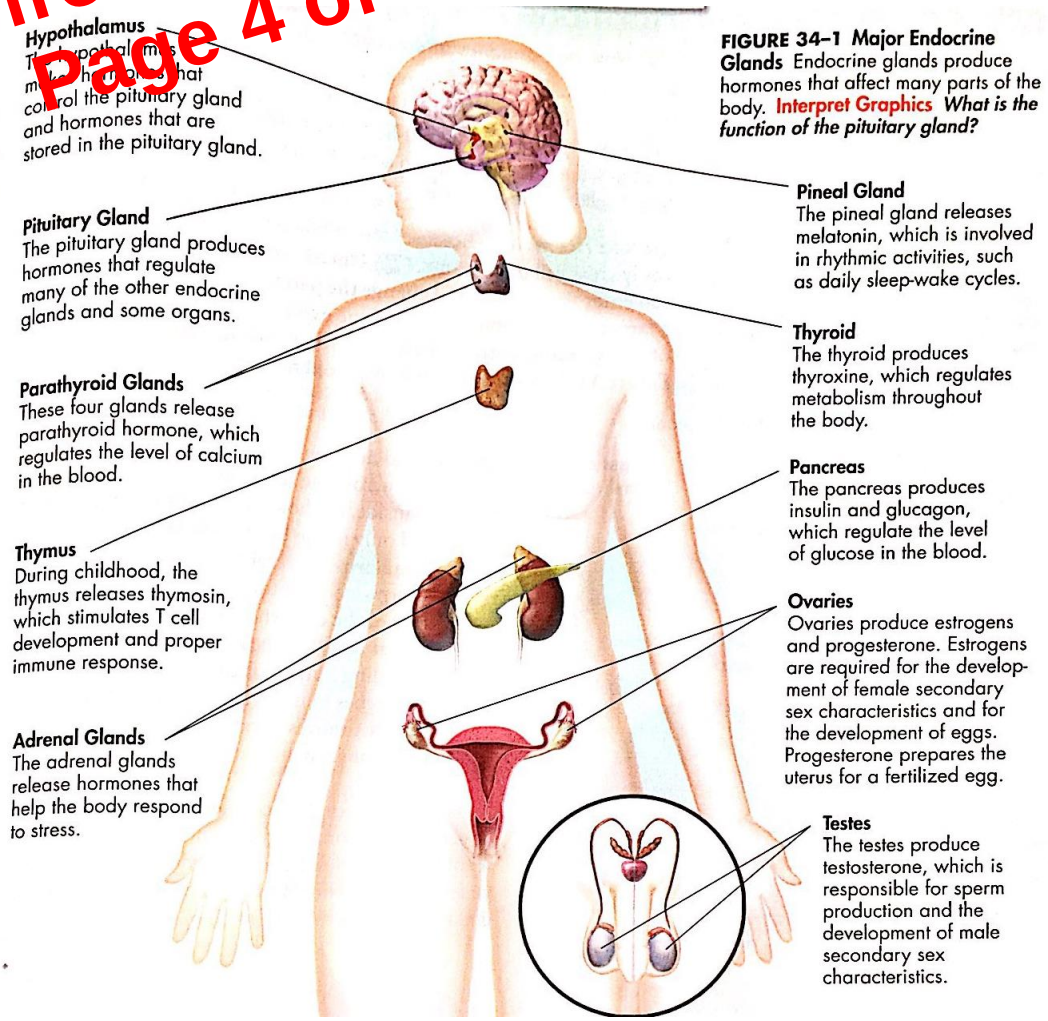


**FIGURE 34–1 Major Endocrine Glands** Endocrine glands produce hormones that affect many parts of the body. **Interpret Graphics** ***What is the function of the pituitary gland?***