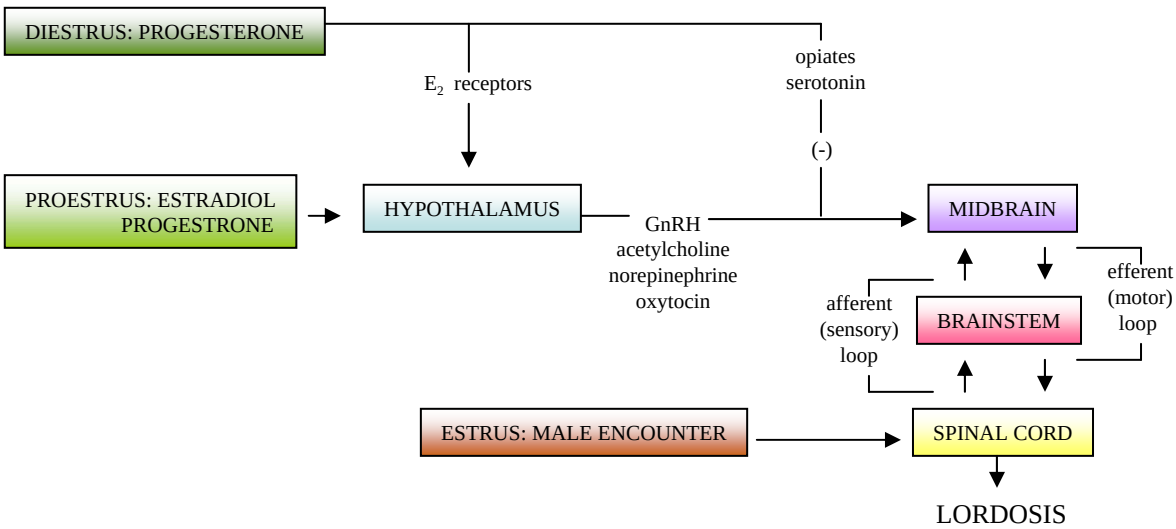

Figure 5-9. Neurohormonal interactions in lordosis. Effects of steroid hormones are exerted primarily within the hypothalamus. The hypothalamus has direct neural connections with the midbrain; terminals of GnRH-producing neurons are found within this region. When an estrous female is investigated by a male, ascending sensory inputs are routed through the spinal cord and brainstem to the midbrain. Descending motor signals supporting lordosis are then returned. Hormones act through adrenergic, cholinergic, opiatergic, and(or) serotonergic neurons to regulate behavioral response centers.