



**FIGURE 8-1**  
**Stress Pathways.**

Stimuli associated with danger activate the amygdala. By way of pathways from the amygdala to the paraventricular nucleus of the hypothalamus (PVN Hypo), corticotrophin-releasing factor (CRF) is sent to the pituitary gland, which, in turn, releases adrenocorticotrophic hormone (ACTH) into the bloodstream. ACTH then acts on the adrenal cortex, causing it to release steroid hormones (CORT) into the bloodstream. CORT freely travels from the blood into the brain, where it binds to specialized receptors on neurons in regions of the hippocampus and amygdala, as well as other regions. Through the hippocampus, CORT inhibits the further release of CRF from the PVN. However, as long as the emotional stimulus is present, the amygdala will attempt to cause PVN to release CRF. The balance between the excitatory inputs (+) from the amygdala and the inhibitory inputs (-) from the hippocampus to PVN determines how much CRF, ACTH, and ultimately CORT will be released.

