

Disorders of Pituitary Function

The pituitary gland is divided into two lobes: the anterior pituitary (adenohypophysis) and the posterior pituitary (neurohypophysis). It is controlled by hormones secreted from the hypothalamus. Each lobe of the pituitary is responsible for secreting different hormones. The cause of pituitary dysfunction may be organic or idiopathic, and may involve one hormone or a combination of hormones. The clinical manifestations of pituitary dysfunction depend on the hormones involved and the age of the patient. *Panhypopituitarism* is defined clinically as the loss of all anterior pituitary hormones, leaving only posterior function intact (Toogood and Stewart, 2008).

Nursing Alert

Children with panhypopituitarism should wear medical identification, such as a bracelet.

Hypopituitarism

Hypopituitarism is the diminished secretion of one or more pituitary hormones. The consequences of the condition depend on the degree of dysfunction. It often leads to:

- Gonadotropin deficiency (decrease in luteinizing hormone [LH] or follicle-stimulating hormone [FSH]) where children show an absence or regression in secondary sex characteristics
- Growth hormone (GH) deficiency in which children display stunted somatic growth
- Thyroid-stimulating hormone (TSH) deficiency, which causes hypothyroidism
- Adrenocorticotrophic hormone (ACTH) deficiency, which results in adrenal hypofunction

Hypopituitarism can result from any of the conditions listed in [Box 28-1](#). The most common organic cause of pituitary undersecretion is a tumor in the pituitary or hypothalamic region. Craniopharyngiomas are tumors well known to invade these regions of the brain and cause panhypopituitarism. Clinical manifestations of panhypopituitarism are listed in [Box 28-1](#). Children with panhypopituitarism should be advised to wear