Hypopituitarism (Anterior Pituitary) Testing

**INDICATIONS FOR TESTING**
Suspected hypopituitarism (anterior pituitary)
Symptoms: fatigue, depression, and other endocrine dysfunction

Determine pituitary hormone(s) to assess

ACTH
ORDER
Serum cortisol test (using sample collected in the morning)
Normal
No adrenal axis insufficiency
Low
Cosyntropin stimulation test
High
Suggests central adrenal insufficiency
Low
Suggests primary adrenal insufficiency

TSH
Refer to the Thyroid Disease Testing algorithm

Gonadotropins
Individual with ovaries
Individual with testes

Prolactin
ORDER
Serum or plasma prolactin test
High
Prolactin-induced hypogonadism
Low
FSH deficiency

Growth hormone
Refer to the Growth Hormone Testing in Pediatric Patients and Growth Hormone Testing in Adult Patients testing algorithms

ORDER
Serum or plasma FSH test
Low LH/FSH Low estrogen
Suggests primary hypogonadism

Low LH/FSH Low estrogen
Suggests central hypogonadism

ORDER
Serum or plasma LH test
Suggests primary hypogonadism

High LH/FSH Low estrogen
Suggests primary adrenal insufficiency

High
Suggests central adrenal insufficiency

Abbreviations
ACTH Adrenocorticotropic hormone
FSH Follicle-stimulating hormone
LH Luteinizing hormone
TSH Thyroid-stimulating hormone

*Serum or plasma LH and FSH tests may be ordered separately or as a combined test.
*Refer to the ARUP Estrogen Tests Comparison table for more information about appropriate estrogen test selection.

Reference