

INDICATIONS FOR TESTING
 Lack of menstrual flow by age 14 and absence of secondary sexual characteristics
 or lack of menstrual flow by age 16 and presence of secondary sexual characteristics

ORDER
[Beta-hCG, Urine Qualitative](#) or
[Beta-hCG, Serum Qualitative](#) to exclude pregnancy

Positive

Pregnant

Normal

ORDER

- [Thyroid Stimulating Hormone with Reflex to Free Thyroxine](#)
- [Prolactin](#)
- [Luteinizing Hormone, Follicle Stimulating Hormone](#)

Elevated prolactin

Perform an MRI on the head

Abnormal TSH

Thyroid Disease

TSH, prolactin

LH and FSH results

Elevated

Primary ovarian failure

- X-chromosome abnormality
- Turner syndrome
- FSH receptor deficiency
- Autoimmune gonadal destruction

Normal

Functional hypothalamic amenorrhea

- Eating disorder, exercise, weight loss
- Stress, chronic illness
- Delayed puberty (20%)
- Gonadotropin releasing hormone (GNRH) deficiency (20%) – consider MRI
- Pituitary disorders (2%) – consider MRI
- Medication-induced (chemotherapy, oral contraceptives, antidepressants, antipsychotics)

Are one of the following symptoms present?

Hypertension

Consider 17-hydroxylase deficiency

Virilization

ORDER
[Testosterone, Free and Total \(Includes Sex Hormone Binding Globulin\), Females or Children](#)

Not elevated

Consider PCOS

Elevated

ORDER
[Dehydroepiandrosterone Sulfate, Serum](#)

DHEAS elevated

Androgen-secreting tumor

Negative

Physical and pelvic examination
 May also consider pelvic ultrasound if unable to confirm presence of uterus

Anatomic abnormality

Uterus absent

ORDER
[Testosterone, Free and Total \(Includes Sex Hormone Binding Globulin\), Females or Children](#)

High

Androgen insensitivity

Normal

ORDER
[Chromosome Analysis](#)

46,XY

5 alpha reductase deficiency

46,XX

Rokitansky Küster syndrome

45, X and variants

Ulrich Turner syndrome

- Transverse vaginal septum
- Imperforate hymen
- Abnormal cervical os
- Other vaginal abnormality (5%)