Cryptorchidism occurs when one or both testes fail to descend through the inguinal canal and into the scrotum. Several processes may slow or arrest testicular descent, including endocrinologic abnormalities affecting the hypothalamic- pituitary-testicular axis, denervation of the genitofemoral nerve, traction of the gubernaculum, abnormal development of the epididymis, or preterm birth. Congenital hernias and abnormal testes often accompany cryptorchid testes, and they are at risk for subsequent torsion.

Anorchism is the complete absence of a testis. Anorchism is suspected whenever one or both testes cannot be palpated in the patient with apparent cryptorchidism. In some cases, bilateral anorchism is associated disorders of sex development with genotypic and phenotypic abnormalities, specifically congenital adrenal hyperplasia (CAH). Although it is commonly associated with a normal karyotype (46,XY) and normal genital development, it is critical to rule out the possibility of CAH in the newborn because of the potential for serious harm due to inability to regulate electrolyte levels (Kolon, Herndon, Baker, et al, 2014). An absent testis may be due to atrophy from prenatal testicular torsion, also known as *vanishing testes* or *testicular regression syndrome.*

The cryptorchid or ectopic testis must be differentiated from anorchism because of the risk for malignant degeneration and subfertility when the testis is left in an extrascrotal location. This differentiation requires laparoscopic or direct surgical exploration (Kolon, Herndon, Baker, et al, 2014).

Retractile testes can be found at any level within the path of testicular descent, but they are most commonly identified in the groin. Fortunately, they are not truly cryptorchid. Instead, they are introverted to an inguinal or abdominal position because of an overactive cremasteric reflex. The cremasteric reflex, observed as withdrawal of the testis above the scrotum and into the inguinal canal in response to various stimuli, including exposure to cool temperatures, is active during infancy and peaks around 4 to 5 years old. Unlike the cryptorchid testis, the retractile testis can be gently moved into the scrotum without residual tension and does not require treatment. Retractile testes can become ascending testes and require annual monitoring.