

of the urethral opening and the degree of **chordee**, or ventral curvature of the penis. The more distant the opening from the normal position at the tip of the glans and the more marked curvature increases the severity and the need for more extensive surgical correction. In mild cases, the meatus is just below the tip of the penis. In the most severe malformation, the meatus is on the perineum between the halves of the bifid scrotum. In addition, the foreskin is usually absent ventrally and, when combined with chordee, gives the organ a hooded and crooked appearance. In severe cases the altered appearance may leave the infant's gender in doubt at birth because of the perineal position of the meatus and small penis. In any case of ambiguous genitalia, additional evaluation is essential. Cryptorchidism is present in about 10% of infants with hypospadias and increases with more proximal hypospadias with the meatus at the scrotum or perineum. There is an increased risk of disorders of sex development in patients with severe hypospadias, both with and without cryptorchidism.



**FIG 26-3** Hypospadias. (Courtesy of H. Gil Rushton, MD, Children's National Medical Center, Washington, DC.)

## **Surgical Correction**

The principal objectives of surgical correction are (1) to enhance the child's ability to void in the standing position with a straight stream, (2) to improve the physical appearance of the genitalia for