until incisions are healed. Precise restrictions depend on the specific type of surgery and surgeon preference.

In most cases, the results of surgery are satisfactory. However, in some of the more severe defects, such as exstrophy and severe hypospadias, additional psychological support may be needed to help adjust to concerns about penis size, appearance of the genitalia, potential ability to procreate, and rejection by peers (especially the opposite sex). Ongoing open discussion and support groups for parents and children are useful in promoting optimum emotional adjustment, particularly during adolescence.

## **Glomerular Disease**

## **Nephrotic Syndrome**

Nephrotic syndrome is a clinical state that includes massive proteinuria, hypoalbuminemia, hyperlipidemia, and edema. The disorder can occur as (1) a primary disease known as **idiopathic nephrosis**, **childhood nephrosis**, or **minimal-change nephrotic syndrome (MCNS)**; (2) a secondary disorder that occurs as a clinical manifestation after or in association with glomerular damage that has a known or presumed cause; or (3) a congenital form inherited as an autosomal recessive disorder. The disorder is characterized by increased glomerular permeability to plasma protein, which results in massive urinary protein loss. This discussion is devoted to MCNS because it constitutes 80% of nephrotic syndrome cases.

## **Pathophysiology**

The onset of MCNS can occur at any age but predominantly occurs in children between 2 and 7 years old. It is rare in children younger than 6 months old, uncommon in infants younger than 1 year old, and unusual after 8 years old. Patients with MCNS are twice as likely to be male.

The pathogenesis of MCNS is not fully understood. There may be a metabolic, biochemical, physiochemical, or immune-mediated disturbance that causes the basement membrane of the glomeruli to become increasingly permeable to protein, but the cause and mechanisms are only speculative.