When caring for the ill child, assess the vital signs as often as every 15 to 30 minutes and record weight frequently during the initial phase of therapy. It is important to use the same scale each time the child is weighed and to predetermine the weight of any equipment or devices that must remain attached during the weighing process, including arm boards, and any clothing the child might be wearing. Take routine weights at the same time each day. Accurate intake and output measurements are essential to the assessment of fluid balance. Measurement from all sources including urine, stools, vomitus, fistulas, NG suction, sweat, and drainage from wounds, must be taken into consideration.

For nursing interventions, see the discussion under specific disorders in this chapter.

Edema

Edema represents an abnormal accumulation of fluid within the interstitial tissue and subsequent tissue and develops when there is a defect in the normal cardiovascular circulation or a failure in the lymphatic drainage systems. Edema results from anything that (1) alters the retention of sodium, such as renal disease or hormonal influences; (2) affects the formation or destruction of plasma proteins, such as starvation or liver disease; or (3) alters membrane permeability, such as nephrotic syndrome or trauma.

Edema may be localized to a small or large area or it can be generalized. A severe, generalized accumulation of great amounts of fluid in all body tissues is termed *anasarca.* Several types of edema include:

- Peripheral edema, or localized or generalized palpable swelling of the interstitial space
- Ascites, or the accumulation of fluid in the abdominal cavity (usually associated with renal or liver abnormalities)
- Pulmonary edema, which occurs when interstitial volume increases
- Cerebral edema, which is a particularly threatening form of edema caused by trauma, infection, or other etiologic factors, including vascular overload or injudicious IV administration of hypotonic solutions
- Overall fluid gain, which is especially seen in patients with