

staff (see [Chapter 20](#)). The benefit of “gowning” by visitors and hospital staff to control infection is not supported by research. Sibling visitation in the NICU has not been shown to increase nosocomial infections ([American Academy of Pediatrics and American College of Obstetricians and Gynecologists, 2012](#)); however, appropriate screening for upper respiratory illness in siblings is often recommended.

The sources of infection rise in direct relationship to the number of persons and pieces of equipment coming in contact with the infants. Equipment used in the care of infants is cleaned on a regular basis in accordance with the manufacturer's recommendations or institutional protocol; this includes cleaning of cribs, mattresses, incubators, radiant warmers, cardiorespiratory monitors, pulse oximeters, and vital sign-monitoring equipment after usage with one infant and before usage with another. Because organisms thrive best in water, plumbing fixtures and humidifying equipment are particularly hazardous. Disposable equipment used for water-related therapies, such as nebulizers and plastic tubing, is changed regularly.

## Hydration

High-risk infants often receive supplemental parenteral fluids to supply additional calories, electrolytes, and water. Adequate hydration is particularly important in preterm infants because their extracellular water content is higher (70% in full-term infants and up to 90% in preterm infants), their body surface is larger, and the capacity for handling fluid shifts is limited in preterm infants' underdeveloped kidneys. Therefore, these infants are highly vulnerable to fluid depletion.

Parenteral fluids may be given to the high-risk neonate via several routes depending on the nature of the illness, the duration and type of fluid therapy, and unit preference. Common routes of fluid infusion include peripheral, peripherally inserted central venous (or percutaneous central venous), surgically inserted central venous, and umbilical venous catheters. The preferred sites for peripheral intravenous (IV) infusions in neonates are the peripheral veins on the dorsal surfaces of the hands or feet. Alternative sites are scalp veins and antecubital veins. Special precautions and frequent observations must accompany the use of peripheral lines