

FIG 20-13 Preferred sites for venous access in infants.

A transilluminator (Fig. 20-14) aids in finding and evaluating veins for access. Although not as powerful as ultrasound, a transilluminator requires minimal training and experience to use. Small veins that may not be visible or palpable (especially in infants and toddlers) are often more readily visualized using a transilluminator and more often result in successful cannulation on the first or second attempt. Some devices require assistance to hold in place. Commercial devices have not caused burns in infants or children. Because veins stand out so clearly with transillumination, they appear more superficial than they are. Practice in this technique is necessary for optimal outcomes.



FIG 20-14 Transilluminator: Low-heat light-emitting diode (LED) light placed on the skin to illuminate veins; an opening allows cannulation of vein. (Courtesy of Professor Mark Waltzman, Children's Hospital, Boston.)

Selection of a scalp vein may require clipping the area around the site to better visualize the vein and provide a smoother surface on which to tape the catheter hub and tubing. Clipping a portion of the infant's hair is upsetting to parents; therefore, they should be told what to expect and reassured that the hair will grow in again rapidly (save the hair because parents often wish to keep it). Remove as little as possible directly over the insertion site and taping surface. A rubber band slipped onto the head from brow to