

brachial pulse, located on the inner side of the upper arm midway between the elbow and the shoulder (Fig. 21-13). Absence of a carotid or brachial pulse is considered sufficient indication to begin external cardiac massage. Lay rescuers are not taught to check the pulse but are taught to look for signs of circulation (e.g., normal breathing, coughing, or air movement) in response to rescue breaths.



FIG 21-13 Locating the brachial pulse in an infant. (Adapted from American Academy of Pediatrics, Committee on Infectious Diseases, Pickering L, editor: *Red book: 2009 report of the Committee on Infectious Diseases*, ed 28, Elk Grove Village, IL, 2009, Author.)

Chest Compression

External chest compression consists of serial, rhythmic compressions of the chest to maintain circulation to vital organs until the child achieves spontaneous vital signs or ALS can be provided. Chest compressions are always interspersed with ventilation of the lungs; however, laypersons who witness an adult cardiac arrest should perform continuous chest compressions (push hard, push fast) without ventilations (Berg, Hemphill, Abella, et al, 2010). For optimal compressions, it is essential that the child's spine is supported on a firm surface during compressions of the sternum and that sternal pressure is forceful but not traumatic. The child's head is positioned for optimal airway opening using the head tilt/chin lift maneuver if the cervical spine is stable and no neck injuries are present. It is essential to prevent overextension of the head of small infants because this tends to close the flexible trachea.

The placement of the fingers for compression in infants is at a