Grade	Description
0	Not palpable
+1	Difficult to palpate, thready, weak, easily obliterated with pressure
+2	Difficult to palpate, may be obliterated with pressure
+3	Easy to palpate, not easily obliterated with pressure (normal)
+4	Strong, bounding, not obliterated with pressure

Respiration

Count the respiratory rate in children in the same manner as for adult patients. However, in infants, observe abdominal movements, because respirations are primarily diaphragmatic. Because the movements are irregular, count them for 1 full minute for accuracy (see also the Chest section later in this chapter).

Blood Pressure

BP should be measured annually in children 3 years old through adolescence and in children with symptoms of hypertension, children in emergency departments and intensive care units, and high-risk infants (National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents, 2004). Auscultation remains the gold standard method of BP measurement in children, under most circumstances. Use of the automated devices is acceptable for BP measurement in newborns and young infants, in whom auscultation is difficult, and in the intensive care setting where frequent BP measurement is needed.

Oscillometric devices measure mean arterial BP and then calculate systolic and diastolic values. The algorithms used by companies are proprietary and differ from company to company and device to device. These devices can yield results that vary widely when one is compared with another, and they do not always closely match BP values obtained by auscultation. An elevated BP reading obtained with an automated or oscillometric device should be repeated using auscultation.

BP readings using oscillometry, such as Dinamap, are generally higher (10 mm Hg higher) than measurements using auscultation (Park, Menard, and Schoolfield, 2005). Differences between Dinamap and auscultatory readings prevent the interchange of the readings by the two methods.