measurement. Because head shape can affect the location of the maximum circumference, more than one measurement is necessary to obtain the most accurate measure. Measure head circumference to the nearest 1 mm or $\frac{1}{16}$ inch.

FIG 4-11 Measurement of head circumference. (From Seidel HM, Ball JW, Dains JE, et al: *Mosby's guide to physical examination,* ed 4, St Louis, 1999, Mosby.)

Plot the head size on the appropriate growth chart under head circumference. Generally, head and chest circumferences are equal at about 1 to 2 years old. During childhood, chest circumference exceeds head size by about 5 to 7 cm (2 to 2.75 inches). For newborns, see Physical Assessment, Chapter 7.

Physiologic Measurements

Physiologic measurements, key elements in evaluating physical status of vital functions, include temperature, pulse, respiration, and blood pressure. Compare each physiologic recording with normal values for that age group. In addition, compare the values taken on preceding health visits with present recordings. For example, a falsely elevated blood pressure (BP) reading may not indicate hypertension if previous recent readings have been within normal limits. The isolated recording may indicate some stressful event in the child's life.

As in most procedures carried out with children, treat older children and adolescents much the same as adults. However, give special consideration to preschool children (see Atraumatic Care