

FIG 8-1 A, Caput succedaneum. B, Cephalhematoma. C, Subgaleal hemorrhage. (A and B, From Seidel HM, Ball JM, Davis JE, et al: *Mosby's guide to physical examination*, ed 6, St Louis, 2006, Mosby.)

Cephalhematoma

Infrequently, a cephalhematoma is formed when blood vessels rupture during labor or delivery producing bleeding into the area between the bone and its periosteum. The injury occurs most often with primiparous delivery and is more likely with forceps delivery and vacuum extraction. Unlike caput succedaneum, the boundaries of the cephalhematoma are sharply demarcated and do not extend beyond the limits of the bone (suture lines) (see [Fig. 8-1, B](#)). The cephalhematoma may involve one or both parietal bones. The occipital bones are less commonly affected, and the frontal bones are rarely affected. The swelling is usually minimal or absent at birth and increases in size on the second or third day. Blood loss is usually not significant.

No treatment is indicated for uncomplicated cephalhematoma. Most lesions are absorbed within 2 weeks to 3 months. Lesions that result in severe blood loss to the area or that involve an underlying fracture require further evaluation. Hyperbilirubinemia may result during resolution of the hematoma. A local infection can develop and is suspected when a sudden increase in swelling occurs. Parents should be counseled that, in some cases, a small area of calcification may develop and persist.

Subgaleal Hemorrhage

Subgaleal hemorrhage is bleeding into the subgaleal compartment (see [Fig. 8-1, C](#)). The **subgaleal compartment** is a potential space that contains loosely arranged connective tissue; it is located beneath the galea aponeurosis, the tendinous sheath that connects the frontal and occipital muscles and forms the inner surface of the scalp. The injury occurs as a result of forces that compress and then drag the head through the pelvic outlet ([Verklan and Lopez, 2011](#)). Instrumented delivery, particularly vacuum extraction and forceps delivery, increases the risk of subgaleal hemorrhage. Additional risk factors include prolonged second stage of labor, prolonged rupture of membranes, fetal distress, failed vacuum extraction, and