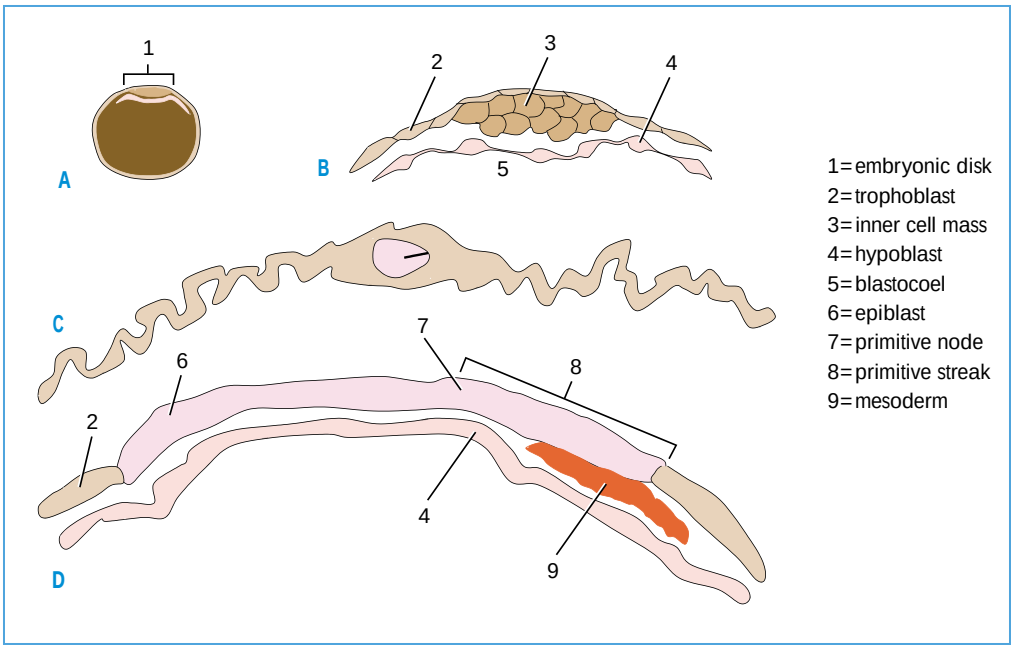


**FIGURE 7.35** Gastrulation in the pig. Diagrams of porcine blastocysts at about 7 (A, B) to 9 days (C, D) of development. A and C show the entire embryo; C is a dorsal view of the embryonic disk. B is an enlargement of the inner cell mass region of A. The primitive groove is visible in the caudal region of the embryonic disk in C. The mesoderm is ingressing in D, which is a sagittal section through the embryonic disk shown in C.

**MOUSE** At about 4.5 days after fertilization (Theiler Stage 6, Table A.10), the inner cell mass of the mouse blastocyst grows deeply into the blastocoel. As a result, the mouse embryo becomes cup-shaped and is referred to as the **egg cylinder** (Fig. 7.36). The inner cell mass becomes bilaminar and the epiblast lines the inner surface of the "cup." The trophoblast cells near the inner cell mass (polar trophectoderm) also proliferate forming the **ectoplacental cone,** and this further elongates the embryo (Fig. 7.36). The shape change makes it more challenging to follow murine gastrulation and organogenesis, than these processes in amphibian and avian embryos. At about 6.5 days after fertilization (Theiler Stage 9), the primitive streak

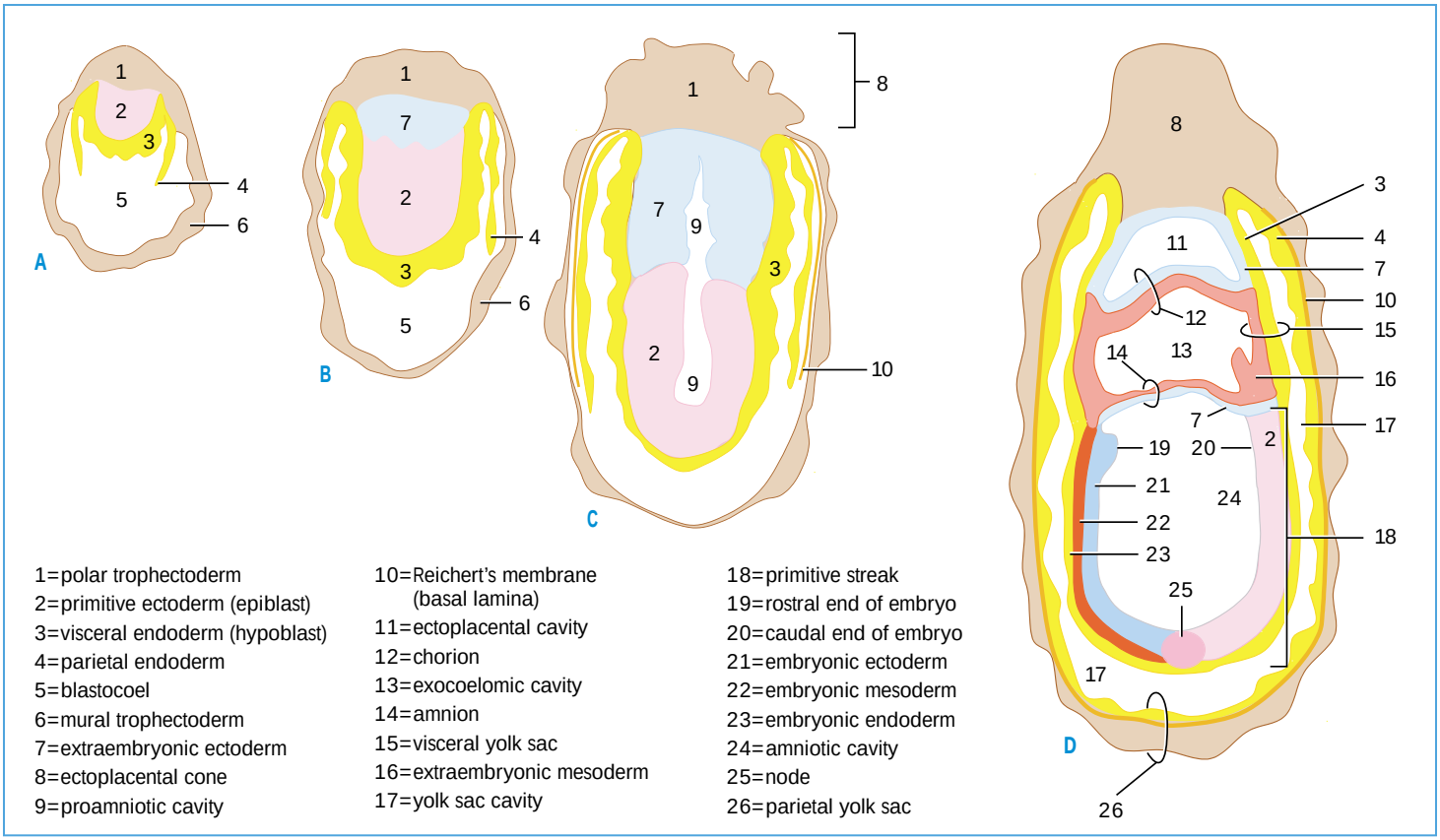


**FIGURE 7.36** Gastrulation in the mouse. Diagrams of murine embryos as the blastocyst is converted into the egg cylinder stage and then into the primitive streak stage. Embryos shown are at (A) the late blastocyst stage at approximately 4.5 days after fertilization (Theiler stage 6), (B) early egg cylinder stage at 5 days (Theiler stage 7), (C) advanced egg cylinder stage at 6 days (Theiler stage 8), and (D) at the primitive streak stage at 7 days (Theiler stage 10). As it develops, the embryo becomes elongated and cup-shaped, with the node present at the bottom of the cup in D. Ingressing mesoderm pushes between the embryonic ectoderm and endoderm.