



FIGURE 6.15 Sequence of sea urchin cleavage to the blastula stage. Fixed whole mounts are shown. A, unfertilized ovum; note absence of fertilization envelope; B, 1-cell during metaphase of first mitosis; C, 1-cell during anaphase of first mitosis; D, 1-cell during late telophase of first mitosis; E, 2-cell interphase; F, 2-cell embryo during second mitosis; G, 4-cell stage; H, 4-cell embryo during third mitosis; I, 8-cell embryo; J, 8-cell embryo during fourth mitosis; K, vegetal/lateral view of dividing 8-cell embryo showing micromeres; L, vegetal/lateral view of 16-cell embryo showing micromeres; M, 32-cell stage (early blastula); N, 64-cell stage (early blastula); O, 128-cell stage (mid-blastula); and P, late blastula prior to hatching from the fertilization envelope.