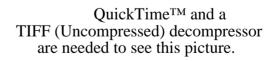
QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.

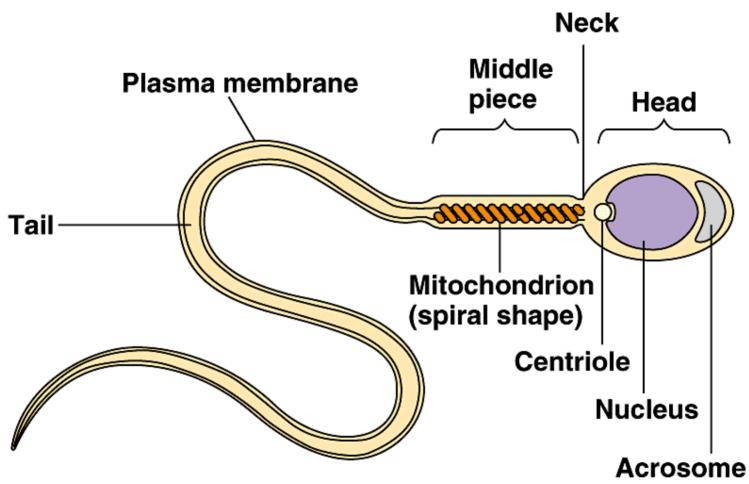


### **OUTLINE 5**

### V. Animal development: pattern

- A. Gametes
  - 1. spermatazoan
  - 2. ovum
- **B.** Fertilization overview
- **C. Details of fertilization**
- **D.** Cleavage
  - 1. major features
  - 2. patterns
    - a. radial
    - b. spiral
  - **3.** later stages of cleavage
    - a. morula
    - b. blastula (blastomere, blastocoel)

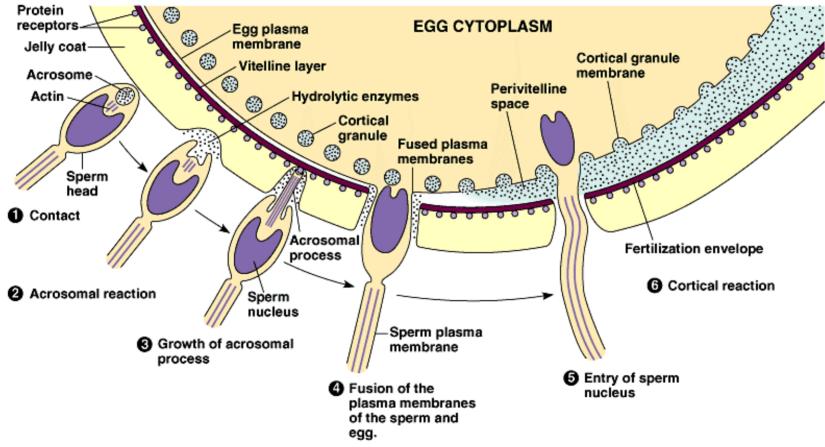
Fig. 46.12



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Fig. 47. 2

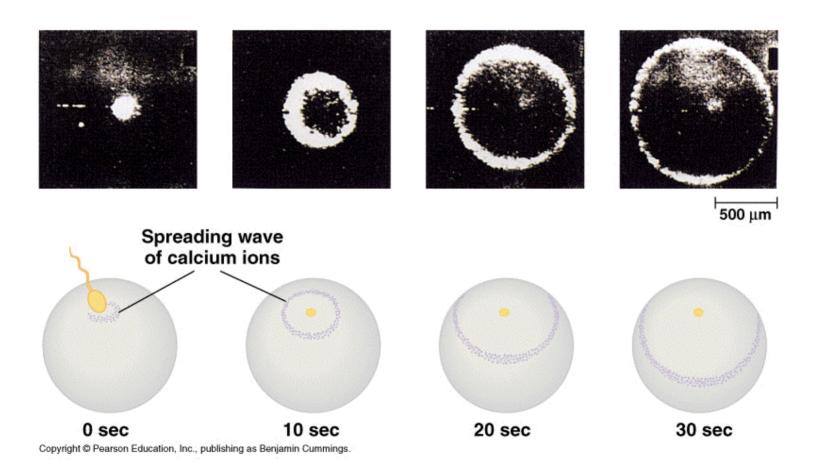
#### Fertilization in the Sea Urchin

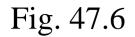


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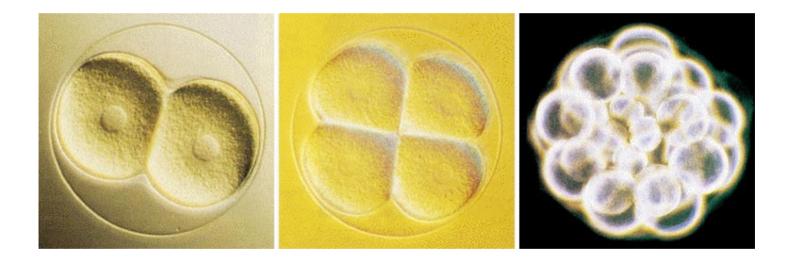
Fig. 47.3

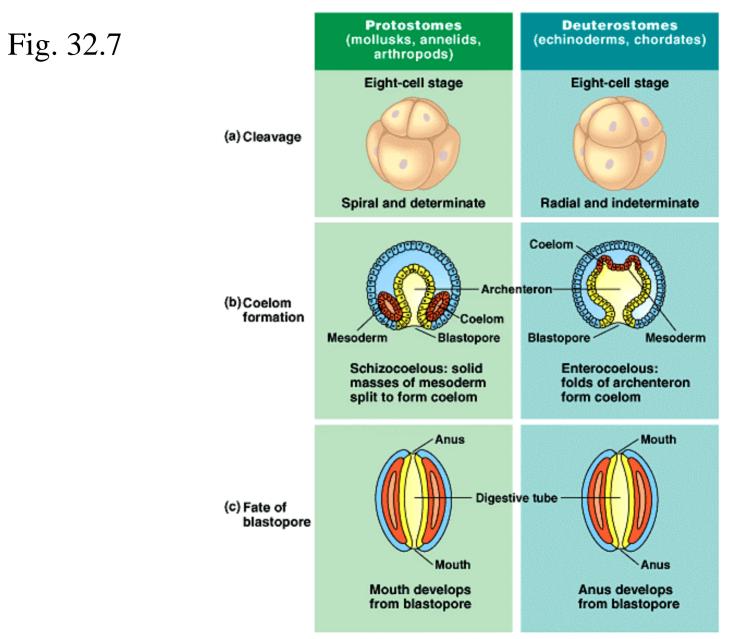
# The cortical reaction





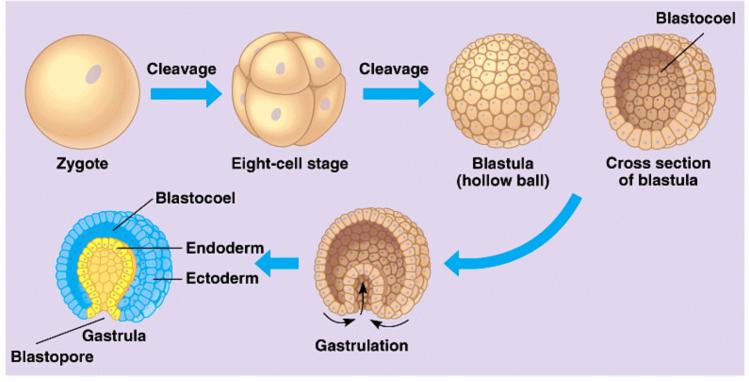
# Early cleavage stages





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Fig. 32.1 Early development of amphibian embryo



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