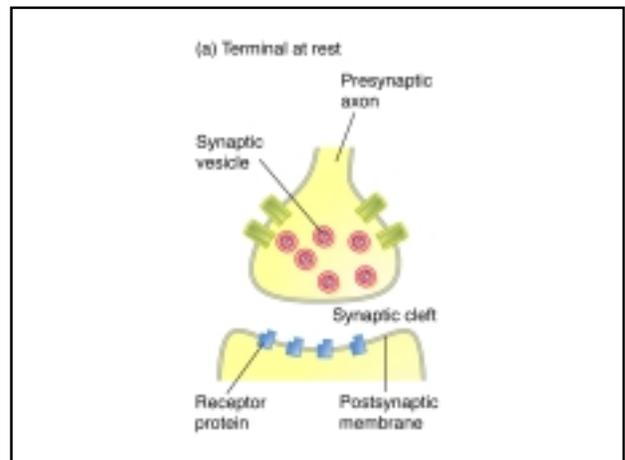
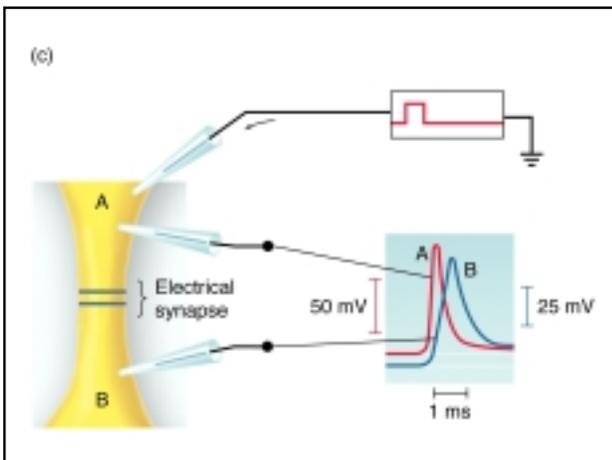
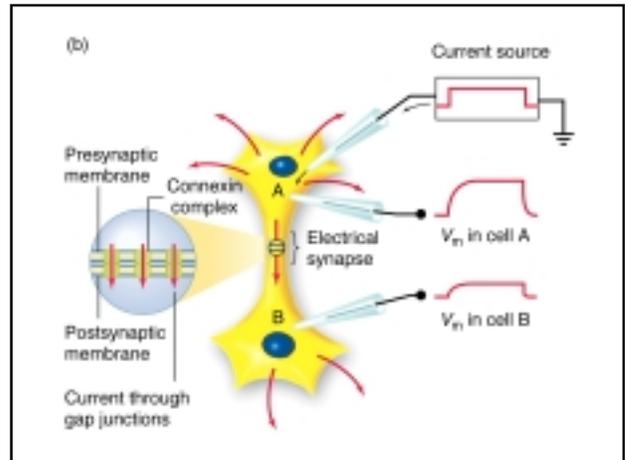
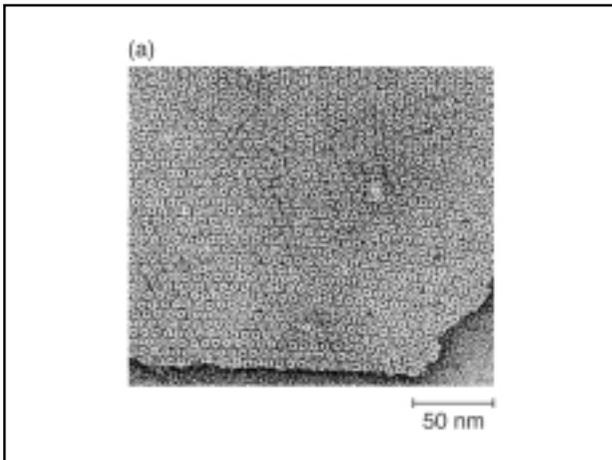


**Table 6-1** The diameter of frog axons and the presence or absence of myelination control the conduction velocity.

| Fiber type                 | Average axon diameter ( $\mu\text{m}$ ) | Conduction velocity ( $\text{m}\cdot\text{s}^{-1}$ ) |
|----------------------------|---|--|
| <b>Myelinated fibers</b>   |   |  |
| A $\alpha$                 | 35.5                                    | 42   |
| A $\beta$                  | 14.0                                    | 25   |
| A $\gamma$                 | 11.0                                    | 17   |
| B                          | Approximately 3.0                       | 4.2  |
| <b>Unmyelinated fibers</b> |   |  |
| C                          | 2.5                                     | 0.4–0.5  |

Source: Erlanger and Gasser, 1927.



(b) AP arrives; vesicles fuse with terminal membrane, producing exocytosis of transmitter.



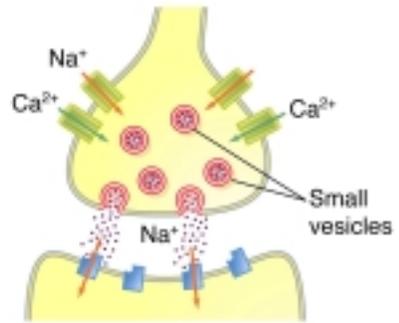
(c) Transmitter binds to postsynaptic receptor proteins; ion channels open.



(d) Transmitter is removed from cleft; fused membrane is recycled.



(a) Fast chemical transmission



(b) Slow chemical transmission

