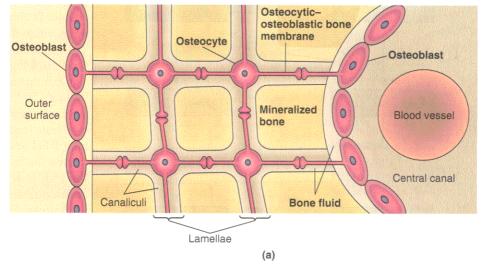
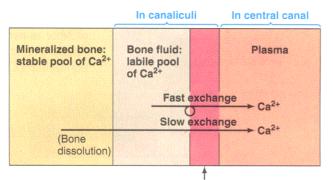


■ FIGURE 19-20

Organization of bone into osteons

(a) An osteon, the structural unit of most bone, consists of concentric lamellae (layers of osteocytes entombed by the bone they have deposited around themselves) surrounding a central canal. A small blood vessel branch traverses the central canal. (b) A magnification of the lamellae within an osteon. A network of small canals, the canaliculi, interconnect the entombed osteocytes with each other and with the central canal. Long cytoplasmic processes extend from osteocyte to osteocyte within the canaliculi. (Source: Modified and redrawn with permission from *Human Anatomy and Physiology*, 3rd Edition, by A. Spence and E. Mason. Copyright (c) 1987 by Benjamin-Cummings Publishing Company. Reprinted by permission.)





Osteocytic-osteoblastic bone membrane (formed by filmy cytoplasmic extensions of interconnected osteocytes and osteoblasts)

= Membrane-bound Ca²⁺ pump