

FIGURE 5.2 Diagram showing the main features—layers and relative distribution of the different cell types—in epidermis of thin skin. The keratinocytes (tan) form the bulk of the epidermis. Less numerous are the melanocytes (gray), which produce the

pigment melanin; Langerhans' cells (blue), which function as macrophages; and Merkel cells (purple). A sensory nerve ending (yellow), extending to the Merkel cell from the dermis (pink), is shown associated with the Merkel cell forming a Merkel disc (touch receptor). Notice that

the keratinocytes, but not the other cell types, are joined by numerous desmosomes (indicated by connections between membranes of adjacent cells). The stratum lucidum, present in thick skin, is not illustrated here.

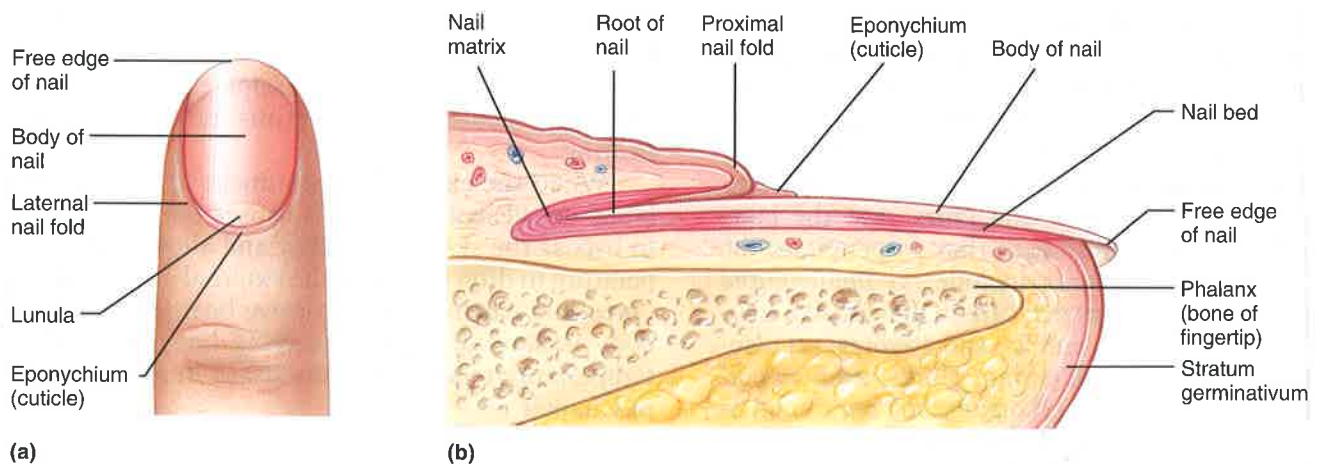


FIGURE 5.7 Structure of a nail. (a) Surface view of the distal part of a finger showing nail parts. (b) Sagittal section of the fingertip. The nail matrix that forms the nail lies beneath the lunula; the epidermis of the nail bed underlies the nail.

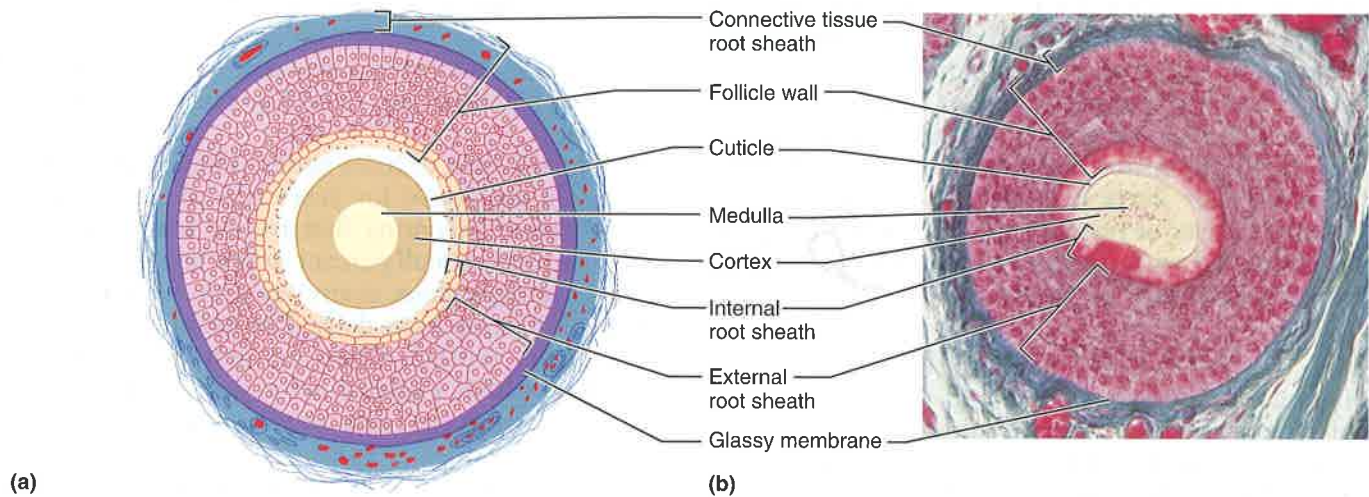


FIGURE 5.6 Structure of a hair and hair follicle.

(a) Cross section of a hair within its follicle, diagrammatic view. (b) Photomicrograph of a cross section of a hair and hair follicle (147x); (c) Diagrammatic view of a longitudinal view of the expanded hair bulb of the follicle, which encloses the matrix, the actively dividing epithelial cells that produce the hair; (d) Photomicrograph of a longitudinal view of the hair bulb in the follicle (164x).

