

Atlas of the Human Body

Central Nervous System and Vascularization

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Preface

Anatomy is one of the oldest medical sciences that still continues today, and is the foundation for the study and practice of the medical arts. It provides, first of all, the basic vocabulary of the medical world and the necessary skills required in solving health–disease problems in three-dimensional space. By sequentially dissecting a region, the anatomical analysis leads to a gradually expanding appreciation of the entire makeup of the human body. This process is fundamental in providing biophysical data for subsequent conceptual elaboration and integration of morphological data into a meaningful functional complex. Dissection, considered the most ancient method of studying an anatomical subject, survived scrutiny and the test of time throughout the history of medicine. However, it still remains a reliable method of scientific and pedagogical analysis of fundamental human structure and function, which is important for minute differential assessment between normal and abnormal conditions, as well as for the optimal treatment of abnormal (diseased) conditions.

Atlas of the Human Body, Central Nervous System and Vascularization has been written with several goals in mind. The most important one was to establish a detailed coverage of anatomical structures/relationships throughout topographic regions, as completely as it was technically possible. To avoid overcrowding of photographs by labels and to provide better visibility of images, two, three, or even more similar regional views, in some instances, have been utilized. In addition to adult specimens, a few prenatal examples were utilized to enable a better understanding of structure/relation specificity of corporal differentiation (conduits, organs, somatic, and branchial derivatives) at various developmental intervals. Another quest of this Atlas was to systematically present arterial distribution, up to the precapillary level, using the “methyl methacrylate injection and subsequent digestion of tissue” method. The resulting photographic presentation of the arterial distribution throughout topographic regions, organs, and special subregions makes this Atlas a unique and invaluable published document in the arsenal of the existing academic literature. The present Atlas, furthermore, contains a very rich collection of: surface and three-dimensional dissection images, native and colored cross-sectional views made in different plans (whenever appropriate these views were compared, side by side, with dissection images), and the distribution of blood vessels throughout body regions and central nervous system. A separate segment of Atlas is devoted to the central nervous system and its specific regions: brain, brainstem, cerebellum, and spinal cord. Each region is presented by a detailed collection of surface (dissection) and cross-sectional views, native blood vessels, and blood vessel casts. The latter collection could adequately subserve as a complete educational–visual aid for the requirements of a Neuroscience course.

Terminology used in the *Atlas of the Human Body, Central Nervous System, and Vascularization* is according to the Terminologia Anatomica (1998).

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Chapter 1

Upper Limb and Vascularization

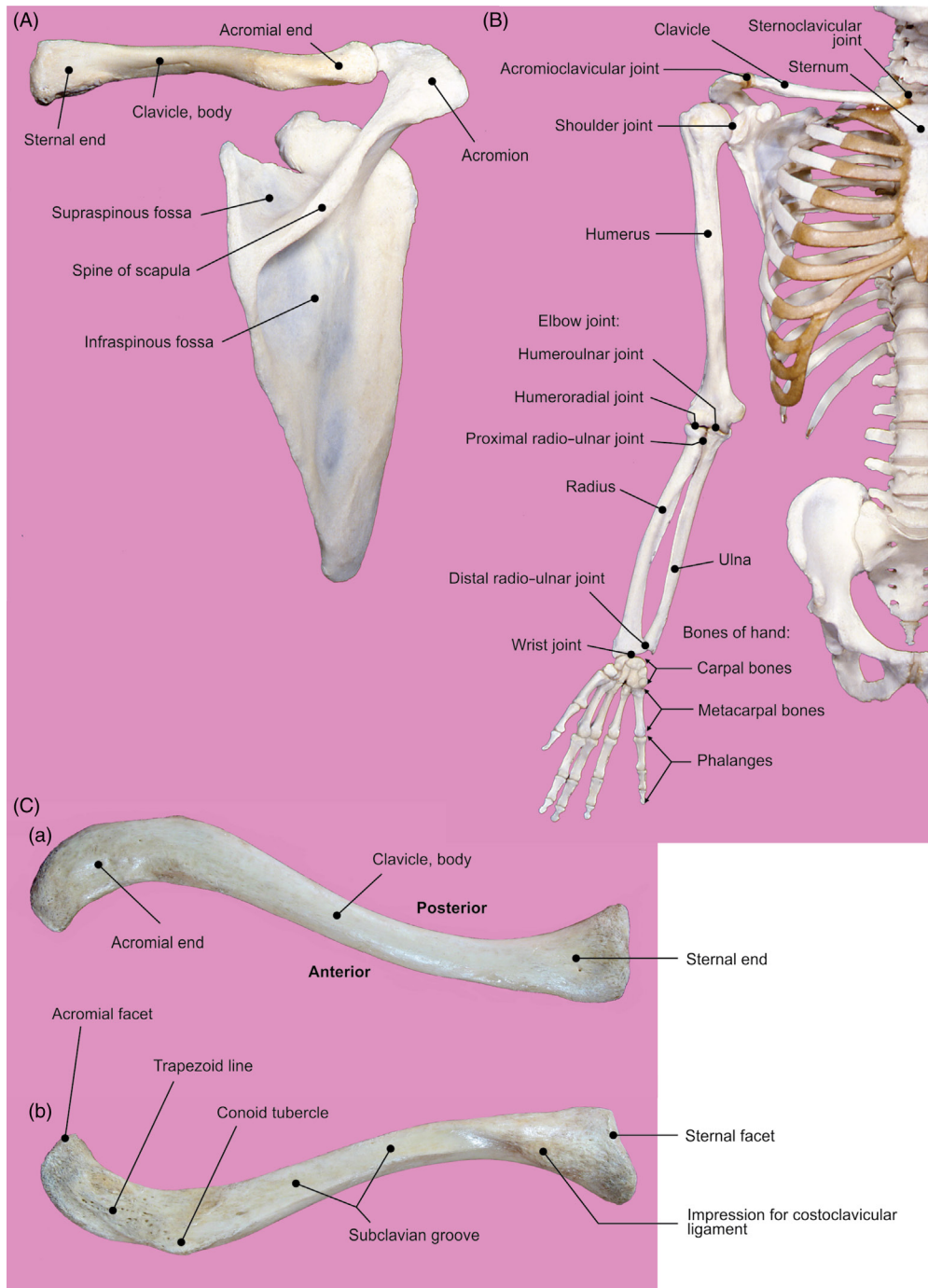


FIGURE 1.1 Skeleton of the upper limb. (A) Posterior view of the right clavicle and scapula. (B) Bones of the shoulder region. (C) Right clavicle: (a) superior and (b) inferior views.

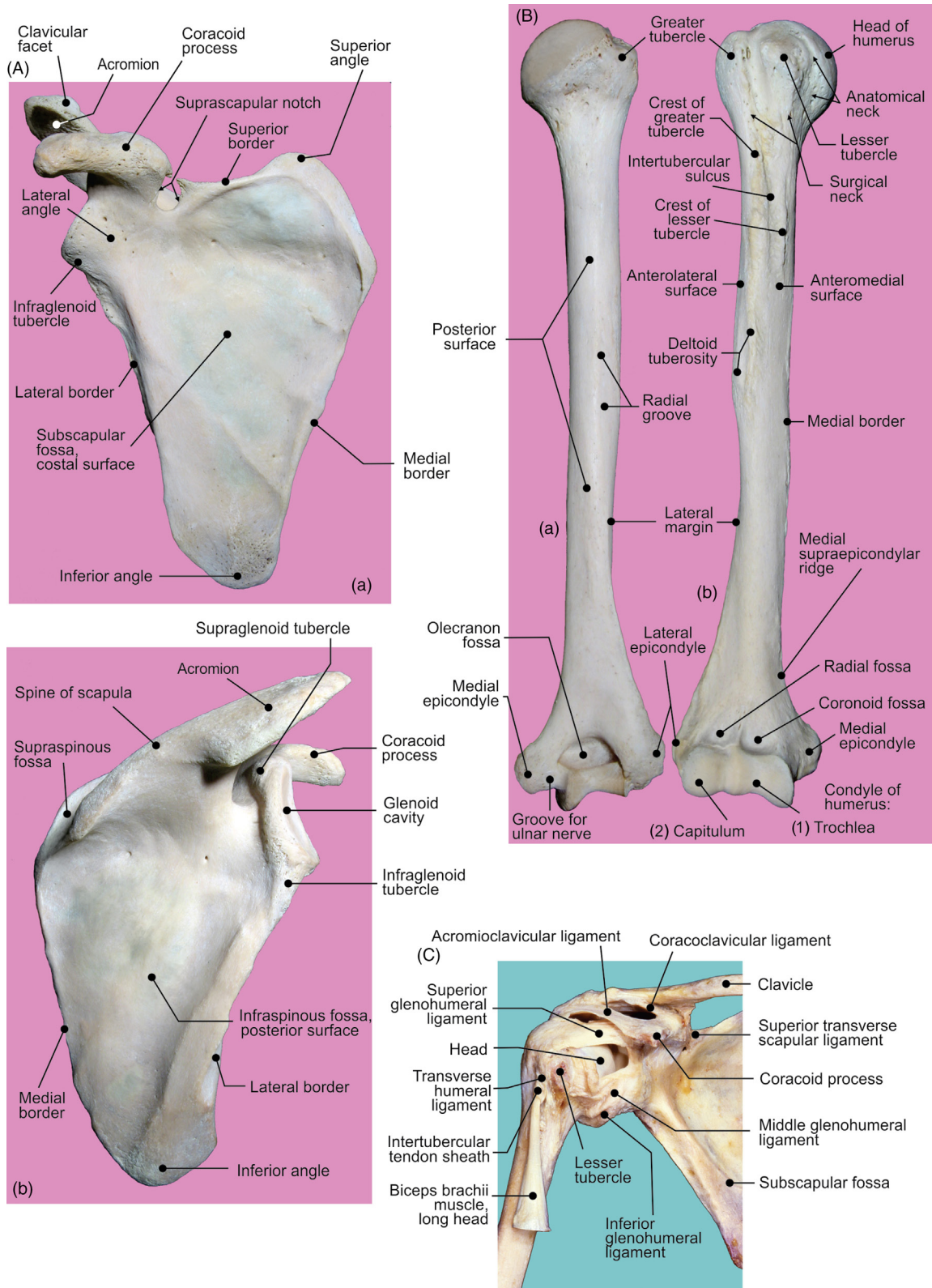


FIGURE 1.2 (A) Right scapula: (a) anterior and (b) posterior views. (B) Right humerus: (a) posterior and (b) anterior views. (C) Anterior view of the shoulder joint.

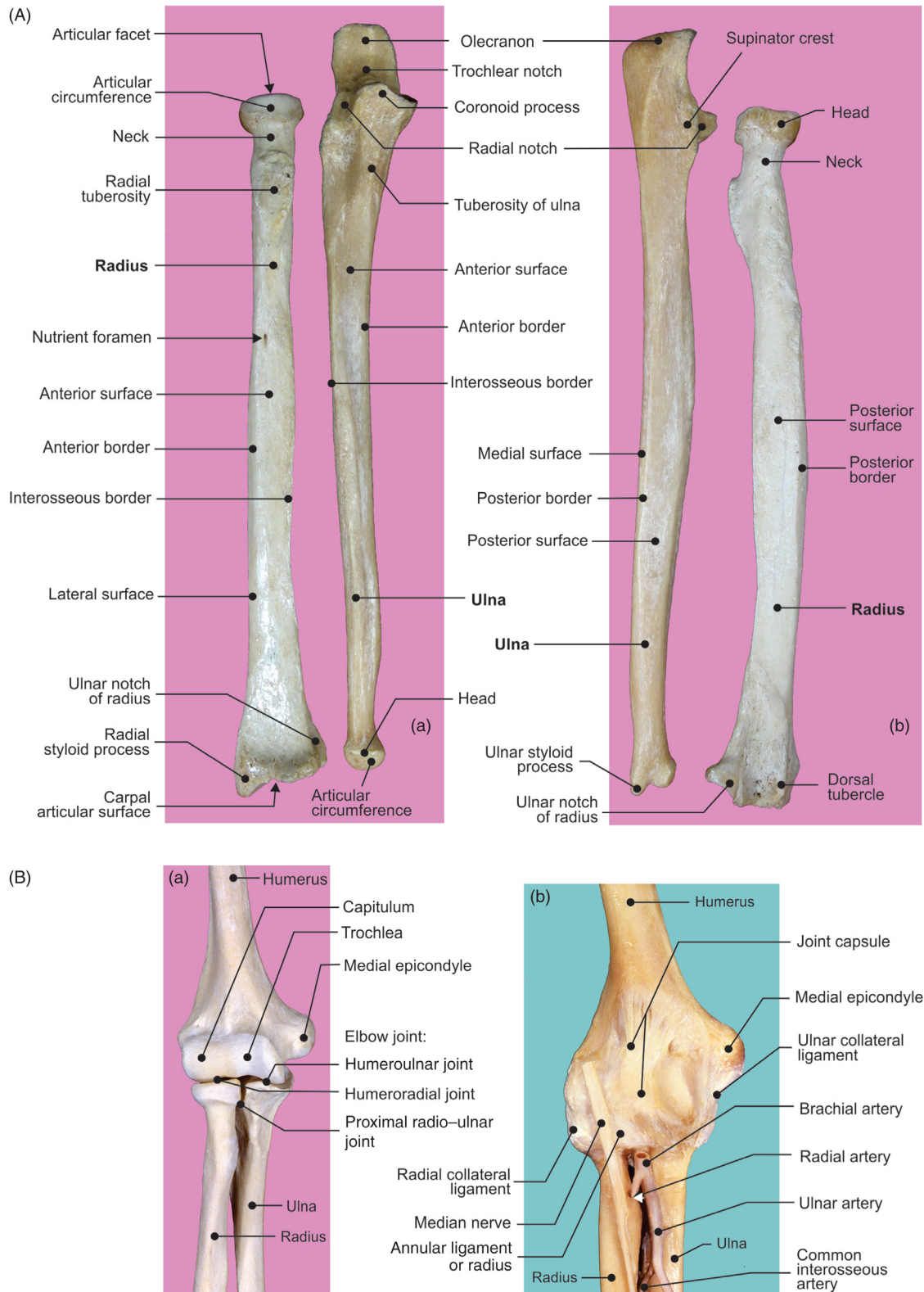


FIGURE 1.3 (A) Right forearm: (a) anterior and (b) posterior views of radius and ulna. (B) Elbow joint: anterior view (a) bones and (b) ligaments.

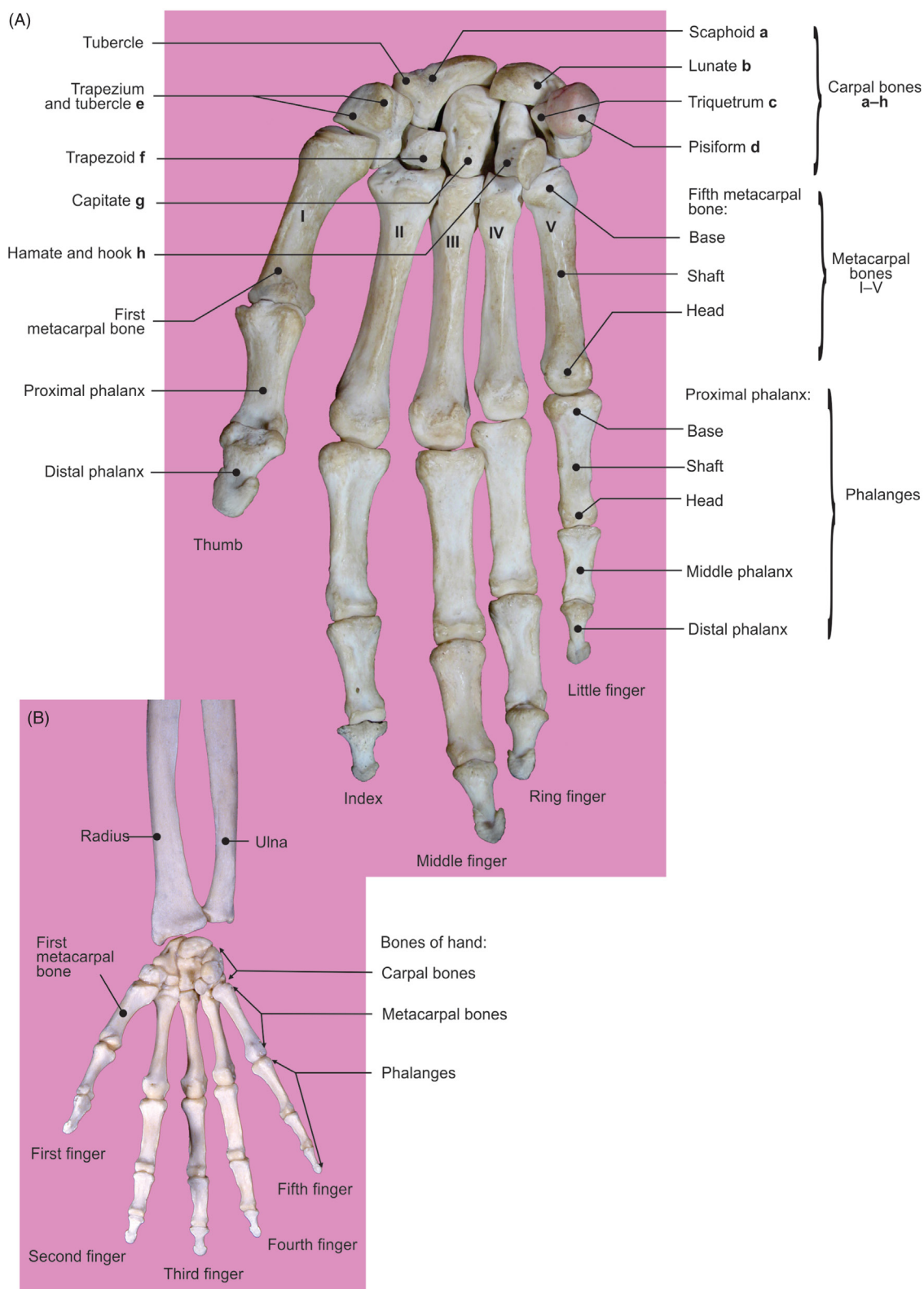


FIGURE 1.4 Palmar surfaces of hand skeleton. (A) Bones of the hand. (B) Wrist joint.

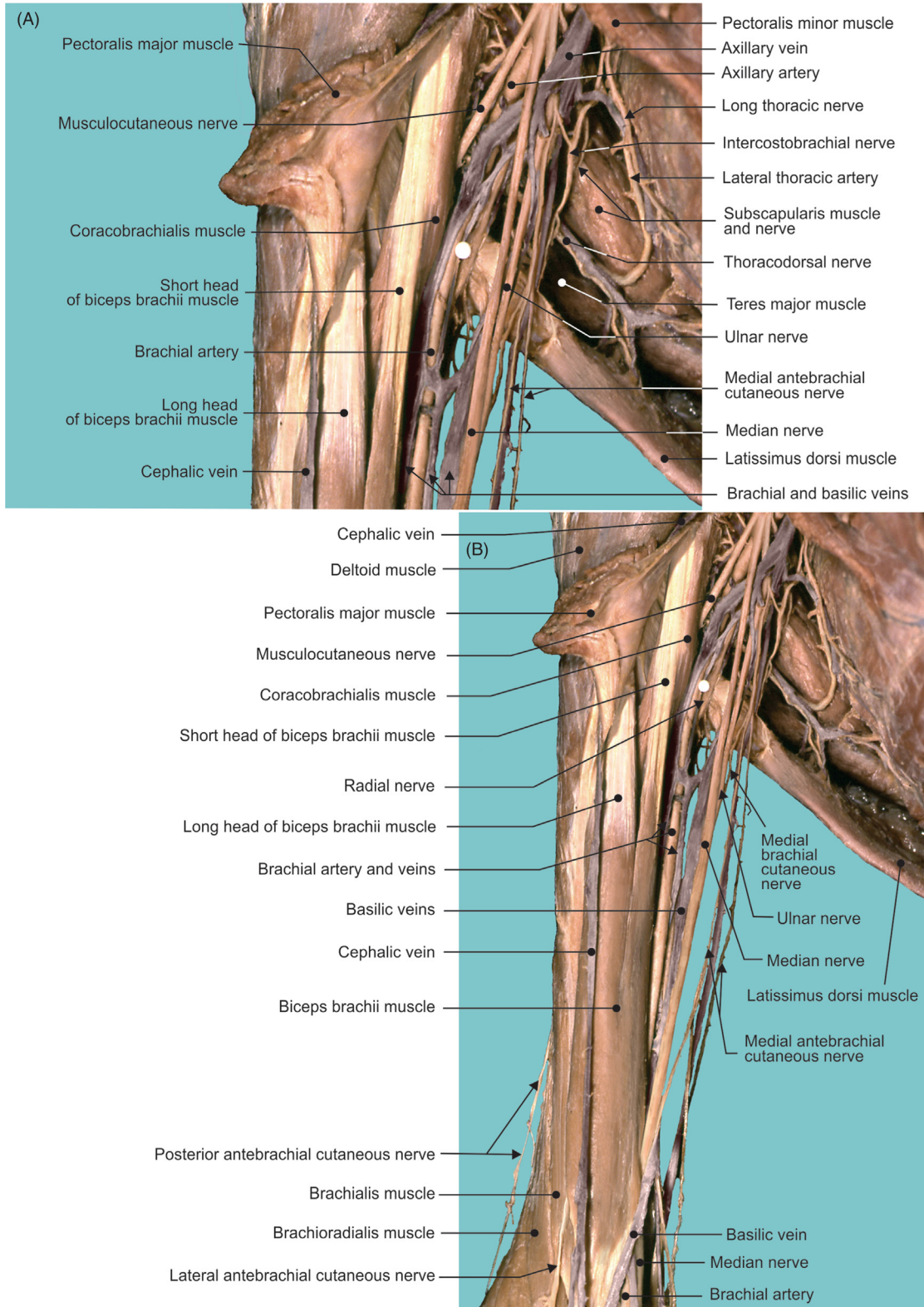


FIGURE 1.5 Anterior views of the (A) axillary and (B) brachial regions.

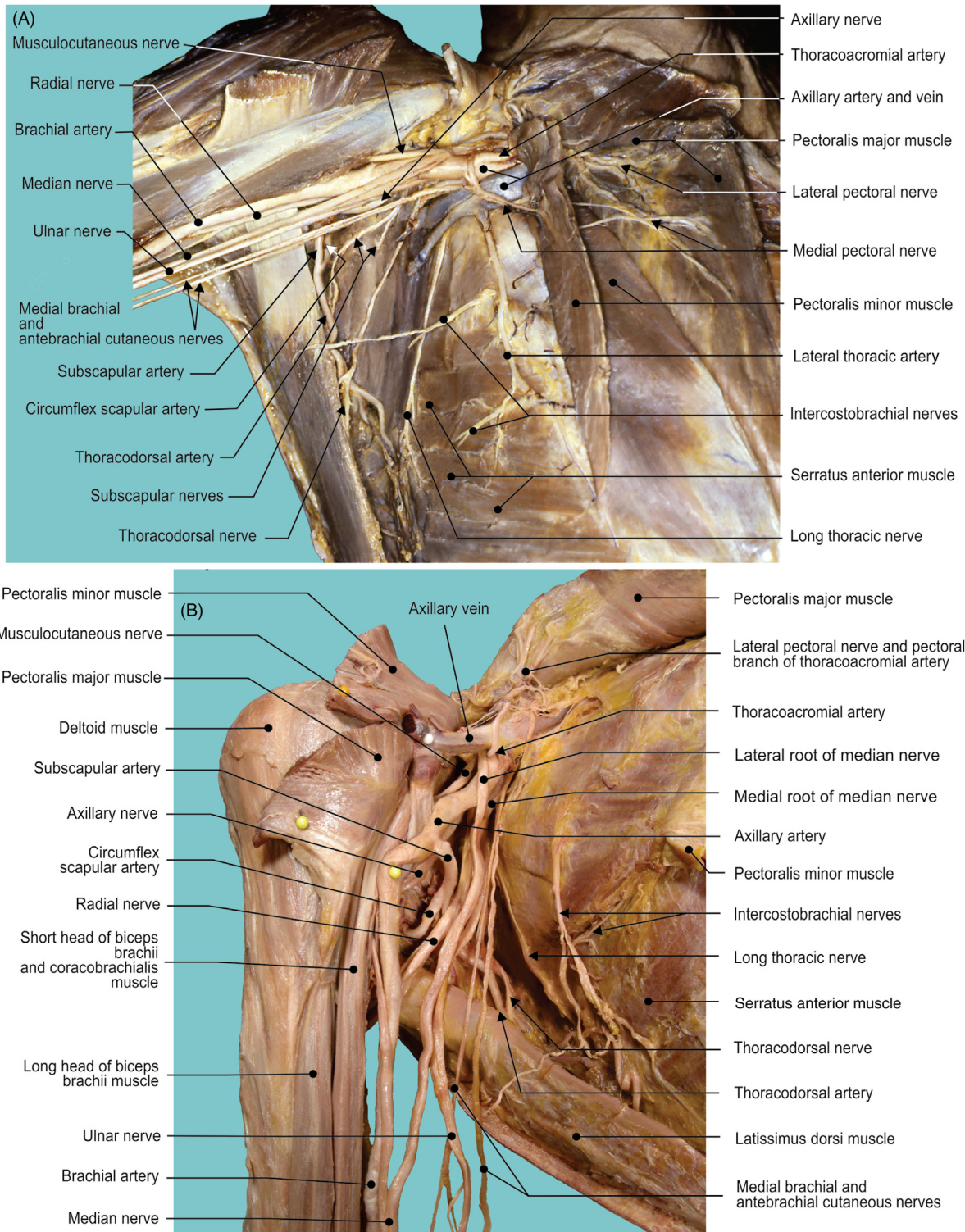
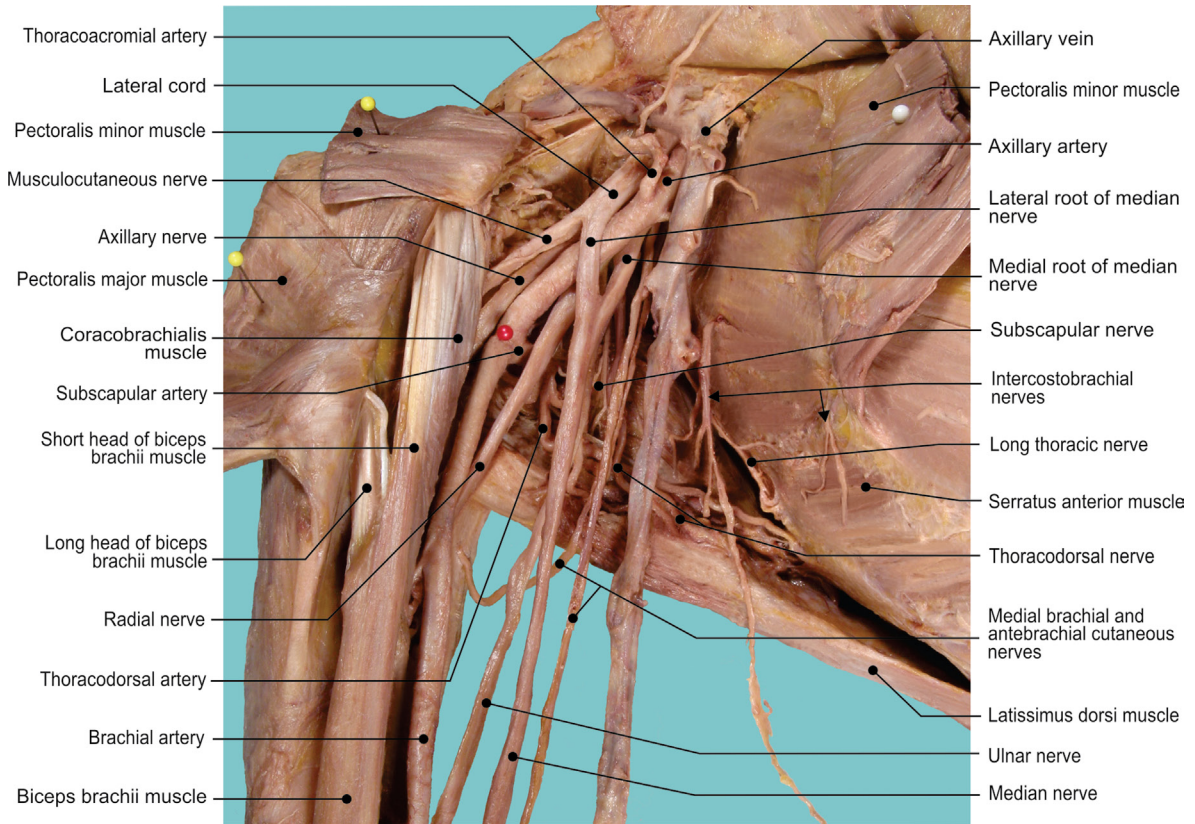
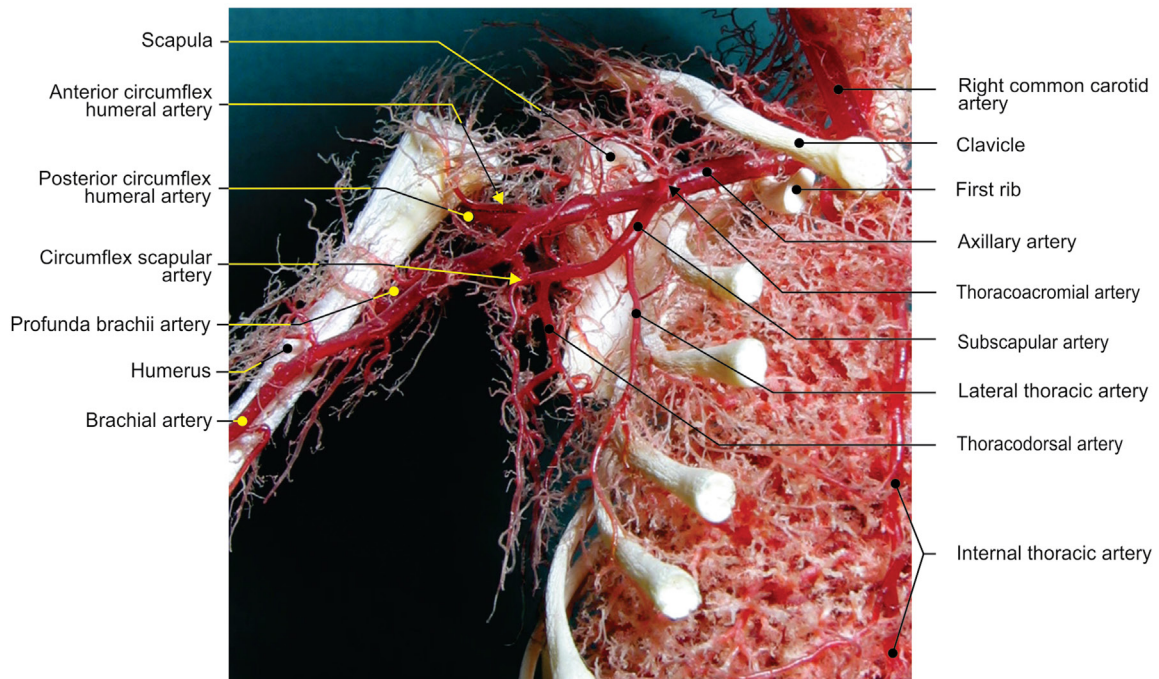


FIGURE 1.6 Anterior views of the (A) axillary and (B) brachial regions.



(A)



(B)

FIGURE 1.7 (A) Anterior view of the axillary fossa. (B) Anterior view of the fetal arterial distribution over rib cage and arm (corrosion cast).