

and is in relation, by its lower part, with the transverse scapular vessels. This surface, at the junction of the curves of the bone, is also in relation with the brachial plexus of nerves and the subclavian vessels. It gives attachment, near the sternal extremity, to part of the Sternohyoideus; and presents, near the middle, an oblique foramen directed lateralward, which transmits the chief nutrient artery of the bone. Sometimes there are two foramina on the posterior surface, or one on the posterior and another on the inferior surface. The **inferior or subclavian surface** is bounded, in front, by the anterior border; behind, by the subclavian border. It is narrowed medially, but gradually increases in width laterally, and is continuous with the under surface of the flat portion. On its medial part is a broad rough surface, the **costal tuberosity** (*rhomboid impression*), rather more than 2 cm. in length, for the attachment of the costoclavicular ligament. The rest of this surface is occupied by a groove, which gives attachment to the Subclavius; the coracoclavicular fascia, which splits to enclose the muscle, is attached to the margins of the groove. Not infrequently this groove is subdivided longitudinally by a line which gives attachment to the intermuscular septum of the Subclavius.

The Sternal Extremity (*extremitas sternalis; internal extremity*).—The sternal extremity of the clavicle is triangular in form, directed medialward, and a little downward and forward; it presents an articular facet, concave from before backward, convex from above downward, which articulates with the manubrium sterni through the intervention of an articular disk. The lower part of the facet is continued on to the inferior surface of the bone as a small semi-oval area for articulation with the cartilage of the first rib. The circumference of the articular surface is rough, for the attachment of numerous ligaments; the upper angle gives attachment to the articular disk.

The Acromial Extremity (*extremitas acromialis; outer extremity*).—The acromial extremity presents a small, flattened, oval surface directed obliquely downward, for articulation with the acromion of the scapula. The circumference of the articular facet is rough, especially above, for the attachment of the acromioclavicular ligaments.

In the female, the clavicle is generally shorter, thinner, less curved, and smoother than in the male. In those persons who perform considerable manual labor it becomes thicker and more curved, and its ridges for muscular attachment are prominently marked.

Structure.—The clavicle consists of cancellous tissue, enveloped by a compact layer, which is much thicker in the intermediate part than at the extremities of the bone.

Ossification.—The clavicle begins to ossify before any other bone in the body; it is ossified from *three* centers—viz., two primary centers, a medial and a lateral, for the body,¹ which appear during the fifth or sixth week of fetal life; and a secondary center for the sternal end, which appears about the eighteenth or twentieth year, and unites with the rest of the bone about the twenty-fifth year.

The Scapula (Shoulder Blade).

The **scapula** forms the posterior part of the shoulder girdle. It is a flat, triangular bone, with two surfaces, three borders, and three angles.

Surfaces.—The **costal or ventral surface** (Fig. 202) presents a broad concavity, the **subscapular fossa**. The medial two-thirds of the fossa are marked by several oblique ridges, which run lateralward and upward. The ridges give attachment to the tendinous insertions, and the surfaces between them to the fleshy fibers, of the Subscapularis. The lateral third of the fossa is smooth and covered by the fibers of this muscle. The fossa is separated from the vertebral border by smooth triangular areas at the medial and inferior angles, and in the interval between these by a narrow ridge which is often deficient. These triangular areas and the intervening ridge afford attachment to the Serratus anterior. At the upper part of the fossa is a transverse depression, where the bone appears to be bent on itself

¹ Mall, American Journal of Anatomy, vol. v; Fawcett, Journal of Anatomy and Physiology, vol. xlvii.