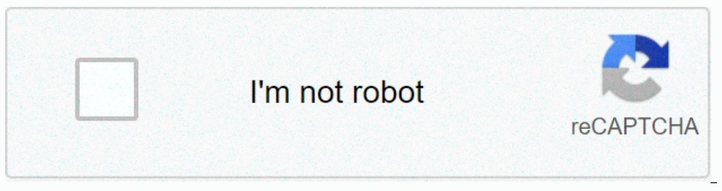

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Tibia and fibula

For the old type of jewellery, see Fibula (brooch). Fibulaposition of the fibula in the human body (shown in red)Cross part of the human lower leg, shows fibulaMeSHD 0005 fibulaMeSHD 0005 fibulaMeSHD 360TA98A02.5.07.001TA21427FMA24479Anatomical terms of bone[edit on Wikidata] 3D Medical animation still recorded by fibula structure The fibula or calf bone is a leg bone on the side of the tibia, to which it is connected at the top and bottom. It is the smaller of the two bones and, in relation to its length, the slimmest of all long bones. Its upper limb is small, to the back of the head of the tibia, below the knee joint and excluded from the formation of this joint. Its lower limb tends a little forward, allowing to be on a plane before that of the upper end; it projects below the tibia and forms the lateral part of the ankle. Structure The bone has the following components: Lateral malleolus interosseous membrane connects the fibula with the tibia, forming a syndesmosis joint The superior tibiofibulary articulation is an arthrodial joint between the lateral condyle of the tibia and the head of the fibula. The lower tibiofibulary articulation (tibiofibulary syndesmosis) is formed by the rough, convex surface of the medial side of the lower end of the fibula and a rough concave surface on the side of the tibia. Blood supply The blood supply is important for planning free tissue transfer, as the fibula is often used to reconstruct the lower jaw. The shaft is supplied in the middle third by a large nutrient vessel from the fibulary artery. It is also penetrated by its periost, which receives many small branches from the fibulary artery. The proximal head and epiphysis are supplied by a branch of the anterior tibial artery. At the harvest of the bone, the middle third is always taken and the ends conserved (4 cm proximal and 6 cm distally) development The fibula is buttoned by three centers, one for the shaft and one for both ends. Ossification begins in the body around the eighth week of fetal life and extends to the extremities. At birth, the ends are cartilage-like. Ossification begins at the lower end of the second year and in the upper year around the fourth year. The lower epiphysis, the first to ossify, unites with the body around the twentieth year; the upper epiphysis is approximately the twenty-fifth year. Head The upper limb or the head of the fibula is of irregular square shape, which is directed over a flattened joint surface, upwards, forwardand medial, for the with a corresponding surface on the side condyle of the tibia. On the side is a thick and rough celebrity behind in a pointed eminence continued, the tip (stylooid process), process), Projects from the back of the head upwards. The prominence, on its upper and lateral part, gives the tendon of the biceps femoris and the fibulary collateral ligament of the knee joint, the ligament divides the tendon into two parts. The remaining part of the circumference of the head is rough, for the attachment of muscles and ligaments. It presents in front a tuber for the origin of the upper and front fibers of the Peroneus longus, and a surface for fastening the front band of the head; and behind it another tuber, for fastening the rear band of the head and the origin of the upper fibers of the sole. Body The body of the fibula represents four edges - the antero-lateral, the antero-medial, the postero-lateral and the postero-mediale; and four surfaces - front, back, medial and lateral. Borders The antero-lateral edge begins at the top of the head, runs vertically downwards to a little below the center of the bone and then bends slightly sideways, square to hug a triangular subcutaneous surface directly above the lateral malleolus. This frame lends the attachment to an intermular septum that separates the extensor muscles on the front surface of the leg from the peronaei longus and brevis on the lateral surface. The antero-media boundary, or interosseous comb, is located near the medial side of

the previous, and runs almost parallel with it in the upper third of its extent, but deviates from it in the lower two thirds. It starts at the top directly under the head of the bone (sometimes it is quite indistinct for about 2.5 cm under the head) and ends at the top of a rough triangular surface directly above the joint facet of the lateral malleolus. It is used to attach the interosseous membrane, which separates the extensor muscles at the front from the flexor muscles behind it. The postero-lateral border is prominent; it starts at the top and ends at the bottom of the rear boundary of the side Malleolus. It is facing upwards sideways, backwards in the middle of its course, backwards and a little medial down, and gives diekan adhesion to an aponeurose that separates the peronaei on the lateral surface from the flexor muscles on the posterior surface. The posteromedial boundary, sometimes called an oblique line, begins at the top of the medial side of the head and ends by continuously becoming continuous with the intermediate comb at the bottom quarter of the bone. It is well marked and prominent on the upper and middle parts of the bone. There is a bond to an aponeurose that separates the tibialis posterior from the Soleus and Flexor hallucis longus. Surfaces The front surface is the interval between the antero-lateral and antero-medial edges. It is extremely narrow and flat in the upper third of its wider and wider longitudinal in the lower third; it serves the origin of three muscles: the extensor digitorum longus, extensor hallucis longus and peroneus tertius. The posterior surface is the space between the postero-lateral and postero-medial edges; it is continuously below with the triangular area above the joint surface of the lateral malleolus; it is directed backwards upwards, backwards and medially in its center, directly medial down. Its upper third is rough, for the origin of soleus; its lower part represents a triangular surface connected to the tibia by a strong interossing band; the intervening part of the surface is covered by the original fibres of the flexor hallucis longus. In the middle of this surface is the nutrient foramen, which is directed downwards. The medial surface is the interval between the antero-medial edge and the posteromedial edge. It is grooved for the origin of tibialis posterior. The side surface is the space between the antero-lateral and postero-lateral edges. It is wide and often grooved deep; it is directed sideways in the upper two thirds of its course, backwards in the lower third, where it is continuous with the rear edge of the lateral Malleolus. This surface gives the Peronaei longus and brevis the origin. Position of the fibula (shown in red) 3D image shape of the fibula (right) diagram, which represents the ossification of the human fibula. Lower extremity of the right fibula. Medial aspect. Ankle. Deep decomposition. Knee and titibiofibularge steering. Deep decomposition. Front. Function The fibula does not carry a significant load (weight) of the body. It extends over the lower end of the tibia and forms the outer part of the ankle, which gives stability to this joint. It has grooves for certain bands that gives them leverage and multiplies the muscle strength. It provides attachment points for the following muscles: muscle adhesion (seen from the front) muscle adhesion (seen from the back) Muscle directionSystem[3] Biceps femoris muscle insertion head of fibula Extensor hallucis longus muscle Origin Media L side of fibula extensor digitorum longus muscle Origin proximal part of the medial side of Fibula Fibularis tertius Origin Distaler part of the medial side of fibula fibularis longus Origin head and the Side of fibula fibula brevis Origin Distal 2/3 side of the side of fibula Soleus muscle Origin Proximal 1/3 of the rear side of the fibula Tibialis posterior muscle origin Side side part of the behind The side of the fibula Flexor hallucis longus muscle Origin Posterior side of fibula Clinical meaning fractures The most common type of fibelf fracture is located at the distal end of the bone and is classified as an ankle fracture. In the Danis-Weber classification, three categories:[4] Type A: Fracture of the lateral malleolus, distal up to Syndesmosis (the connection between the distal ends of the tibia and fibula). Type B: Fracture of the fibula at the level of syndesmosis type C: fracture of the fibula proximal to syndesmosis. A Maisonneuve fracture is a spiral fracture of the proximal third of the fibula, which is associated with a crack of the distal tibiofibulary syndesmosis and the interosseous membrane. There is a associated fracture of the medial malleolus or a fracture of the deep delta band. An avulsion fracture of the fibula's head refers to the fracture of the fibulary head due to a sudden contraction of the biceps femoris muscle, which pulls its attachment to the bone. The attachment of the biceps-femoris tendon to the fibulary head is closely connected to the lateral collateral ligament of the knee. Therefore, this ligament is prone to injury in this type of avulsion fracture. [5] History Etymology The word fibula can be dated to about 1670 to describe a clasp or a brooch – see fibula (brooch) – and was first used in English for the smaller bone in the lower leg around 1706. It comes from the Latin fébula, which also means a brace or brooch. The bone was so called because it resembles a clasp like a modern safety pin. [6] The adjective peroneal, which refers to the fibula bone or its surrounding structures, derives from the ancient Greek word for a closure. Other animals Since the fibula has relatively little weight compared to the tibia, it is usually narrower in all but the most primitive tetrapods. In many animals it still articulates with the posterior part of the lower extremity of the thigh bone, but this characteristic is often lost (as is the case in humans). In some animals, the reduction of the fibula has gone even further than in humans, with the loss of tarsalarticulation and, in extreme cases (such as the horse), the partial fusion with the tibia. [7] See also this article uses anatomical terminology. Peroneal Fibular hemimelia — Congenital absence or shortening of fibula references This article contains text in public from page 260 of the 20th edition of Gray's Anatomy (1918) . OED 2nd edition, 1989. Entry fibula in the Merriam-Webster Online Dictionary. * Bojsen-Méller, Finn; Simonsen, Erik B.; Tranum-Jensen, Jérgen (2001). Bevégeapparatets anatomi (in Danish) (12th edition). pp. 364-367. Esser, Max (April 8, 2008). Practical fracture treatment (fifth note). p. 382. ISBN 978-0-443-06876-8. Blessing of God, CJ; Eyer, BA; White, EA; Learch, TJ; Forrester, D (2008). Avulsion fractures of the knee: imaging findings and clinical significance. Radio graphics. 28 (6): 1755-1770. doi:10.1148/rg.286085503. 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