Parts skull diagram

Download

Download

The human skull is the part of the skeleton that supports the structures of the face and forms a cavity for the brain. The skull supports the musculature and structures of the face and forms a protective cavity for the brain. The skull is formed of several bones which, with the exception of the mandible, are joined together by suturesâ€"synarthrodial immovable joints. The adult human skull is comprised of twenty-two bones which are divided into two parts of differing embryological origin: the neurocranium and the viscerocranium. The neurocranium forms the cranial cavity that surrounds and protects the brain and brainstem. The neurocranium is formed from the occipital bone, two temporal bones, two parietal bones, the sphenoid, ethmoid and frontal bones; they are all joined together with sutures. Components of neurocranium : Neurocranium consists of 8 parts: frontal, sphenoid, ethmoid, occipital, 2 temporal, and 2 parietal bones. The viscerocranium bones form the anterior and lower regions of the skull and include the mandible, which attaches through the only truly motile joint found in the skull. The facial skeleton contains the vomer, two nasal conchae, two nasal bones, two maxilla, the mandible, two palatine bones, two zygomatic bones, and two lacrimal bones. The skull also contains the sinuses. These are air-filled cavities that contribute to lessening the weight of the skull with a minimal reduction in strength. They contribute to resonance of the voice and assist in the warming and moistening of air inhaled via the nose. The neurocranium is comprised of eight bones: occipital, two temporal bones, two parietal bones, sphenoid, ethmoid, and the frontal bone. The neurocranium consists of the occipital bone, two temporal bones, two parietal bones, the sphenoid, ethmoid, and frontal bonesâ€"all are joined together with sutures. Evolutionary,it is the expansion of the neurocranium that has facilitated the expansion of the brain and its associated developments. Neurocranium : A lateral view showing the bones that structure the neurocranium. The occipital bone forms the base of the skull at the rear of the cranium. It articulates with the first vertebra of the spinal cord and also contains the foramen magnum, the large opening of the skill through which the spinal cord passes as it enters the vertebral column. The occipital bone borders the parietal bones through the heavily serrated lambdoidal suture, and also the temporal bones through occipitomastoid suture. The temporal bones are situated at the base and sides of the skull, lateral to the temporal lobes of the brain. The temporal bones consist of four regions the squamous, mastoid, petrous and tympanic regions. The squamous region is the largest and most superior region. Inferior to the squamous is the mastoid region, and fused between the squamous and mastoid regions is the petrous region. Finally, the small and inferior tympanic region lies anteriorly to the mastoid. The two large parietal bones are connected and make up part of the roof and sides of the human skull. The two bones articulate to form the sagittal suture. In the front, the parietal bones form the coronal suture with the frontal bone, and in the rear, the lambdoid suture is formed by the occipital bone. Finally, the squamosal suture separates the parietal and temporal bones. The sphenoid bone is situated in the middle of the skull towards the front and forms the rear of the orbit. It has been described as resembling a butterfly due to its wing-like processes. The sphenoid bone is divided into several parts: the body of the bone, two greater wings, two lesser wings, and the pterygoid processes. The sphenoid bone is one of the most complex in the body due to its interactions with numerous facial bones, ligaments, and muscles. The body that forms the middle of the sphenoid bone articulates with the ethmoid and occipital bone and forms a key part of the nasal cavity; it also contains the sphenoidal sinuses. The greater wings form the floor of the middle cranial fossa that houses the frontal lobes and pituitary gland, and also the posterior wall of the orbit. The lesser wings project laterally and form the floor of the anterior cranial fossa and the superior orbital fissure through which several key optical nerves pass. The ethmoid bone is a small bone in the skull that separates the nasal cavity from the brain. It is lightweight due to its spongy, air-filled construction and is located at the roof of the nose and between the two orbits. The ethmoid bone forms the medial wall of the orbit, the roof of the nasal cavity, and due to its central location it articulates with numerous bones of the viscerocranium. Inside the neurocranium it articulates with the frontal and sphenoid bones. The frontal bone borders two other neurocranial bonesâ€"the parietal bones through the coronal sutures and the sphenoid bone through the sphenofrontal suture. It also articulates with the zygomatic and nasal bones and the maxilla. The viscerocranium face includes these bones: vomer, 2 inferior nasal conchae, 2 nasals, maxilla, mandible, palatine, 2 zygomatics, and 2 lacrimals. The viscerocranium or facial bones supports the soft tissue of the face. The viscerocranium consists of 14 individual bones that fuse together. However, the hyoid bone, ethmoid bone, and sphenoid bones are sometimes included in the viscerocranium. The two zygomatic bones form the cheeks and contribute to the orbits. They articulate with the frontal, temporal, maxilla, and sphenoid bones. The two lacrimal bones form the medial wall of the orbit and articulate with the frontal, ethmoid, maxilla, and inferior nasal conchae. The lacrimal bones are the two smallest bones located in the face. The two slender nasal bones located in the

midline of the face fuse to form the bridge of the noise and also articulate with the frontal, ethmoid and maxilla bones. The inferior nasal conchae are located within the nasal cavity. They are spongy and curled in shape; their primary function is to increase the surface area of the nasal cavity, which also increases the amount of air that contacts the mucous membranes and cilia of the nose, thus filtering, warming, and humidifying the air before it enters the lungs. At the base of the nasal cavity is the small vomer bone which forms the nasal septum. The maxilla bones fuse in the midline and form the upper jaw. They provide the bed for the upper teeth, the floor of the nose, and the base of the orbits. The maxilla articulates with the zygomatic, nasal, lacrimal, and palatine bones. The palatine bones fuse in the midline to form the palatine, located at the back of the nasal cavity that forms the roof of the mouth and the floor of the orbit. Finally, the mandible forms the lower jaw of the skull. Facial bones : There are fourteen facial bones. Some, like the lacrimal and nasal bones, are paired. Others, like the mandible and vomer, are singular. The orbit, or eye socket, is the cavity located in the skull in which the eye and its associated appendages are housed. The orbits are conical, sometimes described as four-sided pyramidal, cavities that open in the midline of the face and point backwards. To the rear of the orbit, the optic foramen opens into the optical canal through which the optic nerve and ophthalmic artery pass. The orbital cavity is formed from seven bones. The frontal bone forms the superior border of the orbital rim and also the superior wall roof of the orbital surface. The zygomatic bone forms the lateral and half of the basal border of the orbital rim, and also the lateral wall of the orbital surfaceâ€"this is the thickest region of the orbit as it is most exposed to external trauma. Completing the basal and medial border of the orbital rim is the maxillary bone, which also forms the inferior wall floor of the orbital surface. The lacrimal and ethmoid bones contribute to the medial wall of the orbit and also to the medial wall of the orbital canal. The small palatine bone contributes to the floor of the orbit. Finally, the sphenoid bone forms the posterior wall of the orbit and also contributes to the formation of the optic canal. The human skull has numerous holes known as foramina through which cranial nerves, arteries, veins, and other structures pass. Base of the skull upper surface : This image details the foramina of the skull. In anatomy, a foramen is any opening. Foramina inside the body of humans and other animals typically allow muscles, nerves, arteries, veins, or other structures to connect one part of the body with another. The human skull has numerous foramina through which cranial nerves, arteries, veins, and other structures pass. The skull bones that contain foramina include the frontal, ethmoid, sphenoid, maxilla, palatine, temporal, and occipital lobes. A suture is a type of fibrous joint or synarthrosis that only occurs in the skull or cranium. A suture is a type of fibrous joint or synarthrosis that only occurs in the skull. A small amount of movement is permitted through these sutures that contributes to the compliance and elasticity of the skull. Most sutures are named for the bones that they articulate. At birth, many of the bones of the skull remain unfused to the soft spots described as fontanelle. The bones fuse relatively rapidly through a process known as craniosynotosis, although the relative positions of the bones can continue to change through life. In old age the cranial sutures may ossify completely, reducing the amount of elasticity present in the skull. As such, the degree of ossification can be a useful tool in determining age postmortem. Lateral view of a skull showing sutures : The dotted red lines indicate the location of skull sutures. The paranasal sinuses four, paired, air-filled spaces surround the nasal cavity, and are located above and between the eyes, and behind the ethmoids. Skull Sinuses : This image shows the position of the sinuses in the human skull. Paranasal sinuses are a group of four, paired, air-filled spaces that surround the nasal cavity maxillary sinuses , above the eyes frontal sinuses , between the eyes ethmoid sinuses , and behind the eyes sphenoid sinuses. The sinuses are named for the facial bones that they are located behind. The paranasal sinuses form developmentally through excavation of bone by air-filled sacs pneumatic diverticula from the nasal cavity. The biological role of the sinuses is debated, but a number of possible functions have been proposed. These include:. Superior view of infant skull : This image shows the location of the anterior frontal and posterior fontanelles. The ossification of the bones of the skull causes the fontanelles to close over a period of 18 to 24 months; they eventually form the sutures of the neurocranium. The cranium of a newborn consists of five main bones: two frontal bones, two parietal bones, and one occipital bone. These are joined by fibrous sutures that allow movement that facilitates childbirth and brain growth. At birth, the skull features a small posterior fontanelle an open area covered by a tough membrane where the two parietal bones adjoin the occipital bone at the lambda. This is called intramembranous ossification. The mesenchymal connective tissue turns into bone tissue. The much larger, diamond-shaped anterior fontanelleâ€"where the two frontal and two parietal bones joinâ€"generally remains open until a child is about two years old. The anterior fontanelle is useful clinically, as examination of an infant includes palpating the anterior fontanelle. Two smaller fontanelles are located on each side of the head. The more

anterior one is the sphenoidal between the sphenoid, parietal, temporal, and frontal bones , while the more posterior one is the mastoid between the temporal, occipital, and parietal bones. Lateral view of infant skull : This image show the location of the sphenoidal and mastoid fontanelles. The fontanelle may pulsate. Although the precise cause of this is not known, it is perfectly normal and seems to echo the heartbeat, perhaps via the arterial pulse within the brain vasculature, or in the meninges. This pulsating action is how the soft spot got its name: fontanelle means little fountain. Parents may worry that their infant may be more prone to injury at the fontanelles. In fact, although they may colloquially be called soft spots, the membrane covering the fontanelles is extremely tough and difficult to penetrate. The fontanelles allow the infant brain to be imaged using ultrasonography. Once they are closed, most of the brain is inaccessible to ultrasound imaging because the bony skull presents an acoustic barrier. Privacy Policy. Skip to main content. Skeletal System: Parts of the Skeleton. Search for:. The Skull. General Features and Functions of the Skull The human skull is the part of the skeleton that supports the structures of the face and forms a cavity for the brain. Learning Objectives Describe the parts of the skull. Key Takeaways Key Points The adult human skull consists of two regions of different embryological origins: the neurocranium and the viscerocranium. The neurocranium is a protective shell surrounding the brain and brain stem. The viscerocranium or facial skeleton is formed by the bones supporting the face. Except for the mandible, all skull bones are joined together by sutures â€"synarthrodial immovable joints. The skull contains air-filled cavities called sinuses. Their functions are debatable, but may be related to lessening skull weight, contributing to voice resonance, and warming and moistening inspired air. Key Terms viscerocranium : The skeleton that supports facial structure. Cranial Bones The neurocranium is comprised of eight bones: occipital, two temporal bones, two parietal bones, sphenoid, ethmoid, and the frontal bone. Learning Objectives Differentiate the bones of the neurocranium. Key Takeaways Key Points The eight bones of the neurocranium form major portions of the skull and protect the brain. The neurocranium consists of two temporal bones situated to the base and side of the skull, and two parietal bones that make up the roof of the skull. A single occipital bone forms the base of the skull, and the frontal bone forms the forehead. The sphenoid and ethmoid bones located to the front of the skull form parts of the orbital sockets and nasal cavity; they also support and protect key organs found in the skull. Key Terms neurocranium : The part of the skull that encloses and protects the brain and brain stem. Facial Bones The viscerocranium face includes these bones: vomer, 2 inferior nasal conchae, 2 nasals, maxilla, mandible, palatine, 2 zygomatics, and 2 lacrimals. Learning Objectives List the facial bones of the viscerocranium. Key Takeaways Key Points The several bones of the viscerocranium are joined by sutures to each other and the neurocranium, except for the mandible, which articulates with the temporal bones. The hyoid bone, ethmoid bone, and sphenoid bones are sometimes included in the viscerocranium. Key Terms viscerocranium : The facial skeleton that is formed by the bones of the anterior and lower skull, which are derived from branchial arches. Orbits The orbit is the cavity or socket of the skull in which the eye and its appendages are situated. Learning Objectives Locate the orbits in the skull. Key Takeaways Key Points The orbits are conical or four-sided pyramidal cavities, which open into the midline of the face and point backwards. To the rear of the orbit the optical foramen opens into the optic canal, which transmits the optic nerve and opthalmic artery. The orbit protects the eye from mechanical injury and provides access for the optic nerve to the brain. Key Terms optic canal : The canal that transmits the optic nerve and ophthalmic artery into the orbital cavity. Foramina The human skull has numerous holes known as foramina through which cranial nerves, arteries, veins, and other structures pass. Learning Objectives Describe the purpose of foramina in the skull. Key Takeaways Key Points A foramen plural: foramina is an opening inside the body that allows key structures to connect one part of the body to another. The skull bones that contain foramina include the frontal, ethmoid, sphenoid, maxilla, palatine, temporal, and occipital. There are 21 foramina in the human skull. Key Terms foramina : The openings inside the body that typically allow muscles, nerves, arteries, veins, or other structures to connect one part of the body to another. Sutures A suture is a type of fibrous joint or synarthrosis that only occurs in the skull or cranium. Learning Objectives List the sutures of the skull. Key Takeaways Key Points It is normal for many of the bones of the skull to be unfused at birth. This allows a tiny amount of movement at the sutures, which contributes to the compliance and elasticity of the skull. Sutures become fused as individuals age; thus, examining sutures can provide an estimate of age postmortem. There are 17 named sutures on the human skull. Key Terms suture : A fairly rigid joint between two or more hard elements, such as the bony plates of the skull. Paranasal Sinuses The paranasal sinuses four, paired, air-filled spaces surround the nasal cavity, and are located above and between the eyes, and behind the ethmoids. Learning Objectives Describe the structure and function of the paranasal

sinuses. Key Takeaways Key Points The sinuses are named for the facial bones that they are located behind. There are four sinuses; the maxillary, frontal, ethmoid, and sphenoid. Paranasal sinuses form developmentally through excavation of bone by air-filled sacs from the nasal cavity. The biological role of the sinuses is debated, but a number of possible functions have been proposed: decreasing weight of the face; increasing resonance of voice; buffer against blows; insulating sensitive structures from rapid temperature fluctuations; and humidifying and heating of inhaled air. Key Terms paranasal sinuses : A group of four, paired, air-filled spaces that surround the nasal cavity maxillary sinuses , above the eyes frontal sinuses , between the eyes ethmoid sinuses , and behind the eyes sphenoid sinuses. Learning Objectives Identify the evolutionary purpose of skull fontanelles. At birth, the skull features a small posterior fontanelle an open area covered by a tough membrane where the two parietal bones adjoin the occipital bone at the lambda ; it usually closes in the first two to three months of life through intramembranous ossification. The much larger, diamond-shaped anterior fontanelleâ€"where the two frontal and two parietal bones joinâ€"generally remains open until the child is about two years of age. Key Terms fontanelle : A fontanelle is a soft membraneous spot on the head of a baby due to incomplete fusion of the cranial bones. Licenses and Attributions. CC licensed content, Shared previously. This Bodytomy post has detailed information on the human skeletal system, along with a simple diagram, which will help you learn and understand human anatomy. A child is born with close to bones. However, as he grows up, the bones fuse together and an adult human skeletal system consists of bones. Given below is a labeled diagram, and tips to help you draw and memorize the names of different parts. Here is a detailed diagram which shows the various bones present in an adult skeletal system. There is a little difference between the male and female skeleton, but for diagrams mostly a male skeletal system is considered. Would you like to write for us? Well, we're looking for good writers who want to spread the word. Get in touch with us and we'll talk Take a good look at the above diagram. If you wish to memorize it, to be replicated during an examination or a test, then there is no other way than to practice drawing it couple of times. You can use some forms to make drawing the skeleton easier. For example, for a skull you can use an oval, for the chest or ribs you can use a rectangle, then for the pelvis you can use a triangle, and small cylinders can be used to draw hands and legs. Once you have drawn these outlines, you may sketch the detailed shapes of the various bones. This will make your drawing look proportionate. You can stick a labeled diagram on a wall in your room, so you can see it many times a day, in order to memorize it better. Memorizing all the scientific names of the skeletal system can be difficult. As you can see in the above diagram, there are around 24 labels, and forgetting one of them is quite possible. To avoid this, here is a trick I use to remember the names of the bones. To remember the names of skeletal system parts, always go from top to bottom. To remember the name of the skull parts remember the initials C and M, which are for cranium and mandible. To remember the name of the chest and back bones, remember C, S, R and V which are for clavicle, sternum, ribs and vertebrae. For pelvis bones names, use P, O, S, and C which stand for pelvis, os coxae, scarum and coccyx. Finally to remember the bone part names for legs, use F, P, T, F, T, M and P; which are for femur, patella, tibia, fibula, tarsals, metatarsals and phalanges. If you wish to use the above diagram for practice, then click here for a blank skeletal system diagram to label. On this blank diagram, practice writing the appropriate names of the various skeleton parts. Do this couple of times, using the above tip to memorize the names of the bones. Necessary cookies are absolutely essential for the website to function properly. This category only includes cookies that ensures basic functionalities and security features of the website. These cookies do not store any personal information. Any cookies that may not be particularly necessary for the website to function and is used specifically to collect user personal data via analytics, ads, other embedded contents are termed as non-necessary cookies. It is mandatory to procure user consent prior to running these cookies on your website. Skip to primary navigation Skip to main content Skip to primary sidebar Skip to footer Skeleton Diagram This Bodytomy post has detailed information on the human skeletal system, along with a simple diagram, which will help you learn and understand human anatomy. Let's Work Together! Get Updates Right to Your Inbox Sign up to receive the latest and greatest articles from our site automatically each week give or take If you are human, leave this field blank. Kidneys Vital Role April 27, This website uses cookies to improve your experience. We'll assume you're ok with this, but you can opt-out if you wish. Cookie settings Accept. Close Privacy Overview This website uses cookies to improve your experience while you navigate through the website. Out of these cookies, the cookies that are categorized as necessary are stored on your browser as they are essential for the working of basic functionalities of the website. We also use third-party cookies that help us analyze and understand how you use this website. These cookies will be stored in your browser only with your consent. You also have the option to opt-out of these cookies. But opting out of

some of these cookies may have an effect on your browsing experience. Necessary Necessary. Non-necessary Non-necessary. The eight major bones of the cranium are connected by cranial sutures, which are fibrous bands of tissue that resemble seams. The eight major bones of cranium are:. The adductor hallucis is a two-headed muscle that is responsible for flexing and contracting the big toe, and reinforcing the arch of the foot. The ankle bones include the calcaneus, cuboid, external cuneiform, internal cuneiform, middle cuneiform, navicular, and talus. The talus sits at theâ€¦. The vastus lateralis muscle is located on the side of the thigh. This muscle is the largest of the quadriceps group often called quads which alsoâ€¦. The adductor pollicis is a large triangular muscle located in the hand. Together with other muscles, it is part of the fleshy mass in the first webâ€¦. The zygomaticus major muscle is a muscle that controls facial expression, drawing the mouth's angle upward and outward. The zygomaticus major muscleâ€¦. The semitendinosus muscle is one of three hamstring muscles that are located at the back of the thigh. The other two are the semimembranosus muscleâ€¦. The main adductors of the hip are the adductor magnus muscle, the adductor longus muscle, and the adductor brevis muscle. These adductors are assistedâ€¦. A thin strip of tissue, the multifidus muscle starts at the sacral bone at the base of the spine and extends up to the axis, which is commonlyâ€¦. The opponens digiti minimi is a triangular muscle in the hand. It plays an integral role in the movement and control of the fifth metacarpal, or theâ€¦. The extensorâ€¦. There are eight major bones and eight auxiliary bones of the cranium. Read this next. Adductor hallucis Medically reviewed by the Healthline Medical Network. Calcaneofibular ligament Medically reviewed by the Healthline Medical Network. Vastus lateralis Medically reviewed by the Healthline Medical Network. Adductor pollicis Medically reviewed by the Healthline Medical Network. Zygomaticus major Medically reviewed by the Healthline Medical Network. Semitendinosus Medically reviewed by the Healthline Medical Network. Adductor brevis Medically reviewed by the Healthline Medical Network. Multifidus Medically reviewed by the Healthline Medical Network. Opponens digiti minimi Medically reviewed by the Healthline Medical Network. Extensor digitorum Medically reviewed by the Healthline Medical Network. Skull , skeletal framework of the head of vertebrates , composed of bones or cartilage , which form a unit that protects the brain and some sense organs. The upper jaw , but not the lower, is part of the skull. The human cranium , the part that contains the brain, is globular and relatively large in comparison with the face. In most other animals the facial portion of the skull, including the upper teeth and the nose , is larger than the cranium. In humans the skull is supported by the highest vertebra, called the atlas, permitting nodding motion. The atlas turns on the next-lower vertebra, the axis, to allow for side-to-side motion. In humans the base of the cranium is the occipital bone , which has a central opening foramen magnum to admit the spinal cord. The parietal and temporal bones form the sides and uppermost portion of the dome of the cranium, and the frontal bone forms the forehead; the cranial floor consists of the sphenoid and ethmoid bones. The facial area includes the zygomatic , or malar, bones cheekbones , which join with the temporal and maxillary bones to form the zygomatic arch below the eye socket; the palatine bone; and the maxillary, or upper jaw, bones. The nasal cavity is formed by the vomer and the nasal, lachrymal, and turbinate bones. In infants the sutures joints between the various skull elements are loose, but with age they fuse together. Many mammals , such as the dog , have a sagittal crest down the centre of the skull; this provides an extra attachment site for the temporal muscles , which close the jaws. Skull Article Media Additional Info. Print Cite verified Cite. While every effort has been made to follow citation style rules, there may be some discrepancies. Please refer to the appropriate style manual or other sources if you have any questions. Facebook Twitter. Give Feedback External Websites. Let us know if you have suggestions to improve this article requires login. External Websites. Articles from Britannica Encyclopedias for elementary and high school students. The Editors of Encyclopaedia Britannica Encyclopaedia Britannica's editors oversee subject areas in which they have extensive knowledge, whether from years of experience gained by working on that content or via study for an advanced degree See Article History. Lateral and anterior views of a human skull. Britannica Quiz. You may know that the human brain is composed of two halves, but what fraction of the human body is made up of blood? Test both halves of your mind in this human anatomy quiz. The internal surface of the human cranium. Learn More in these related Britannica articles:. The skulls of the several subclasses and orders vary in the ways mentioned below. In addition to differences in openings on the side of the skull and in general shape and size, the most significant variations in reptilian skulls are those affectingâ€¦. Snakes rely on several senses to inform them of their surroundings. The pits, found in the region between the nostril and the eye in the pit vipers the viperid subfamily Crotalinae and in the scales of the lip line in someâ€¦. Skull fracture and concussion from a severe blow on the head can impair the functioning of the auditory and vestibular nerves in varying degrees. The greatest hearing loss

arises when a fracture of the skull passes through the labyrinth of theâ€¦. History at your fingertips. Sign up here to see what happened On This Day , every day in your inbox! Email address. By signing up, you agree to our Privacy Notice. Be on the lookout for your Britannica newsletter to get trusted stories delivered right to your inbox. Eyes are approximately one inch in diameter. Pads of fat and the surrounding bones of the skull protect them. The eye has several major components: the cornea, pupil, lens, iris, retina, and sclera. When we look at an object, light reflected from it enters the eye and is refracted , or bent. This creates a focused, upside-down image of the object that the brain will have to interpret and turn in the correct direction. Inside the eye are photoreceptors , which create nerve impulses when struck by light. There are two types: cones make color vision possible, and rods specialize in black-and-white images. Although our eyes can only see in two dimensions, we are able to determine distances and depth in our three-dimensional world. This is because the brain interprets the two slightly different images our left and right eyes see as one. This is called stereoscopic vision. Other visual cues, such as shadows, how objects are blocking each other, and our knowledge about the sizes of different objects also help us determine depth and distance. A series of muscles helps the eye move. The first set is the superior and inferior rectus muscles, which allow upward and downward motion. The medial and lateral rectus muscles allow the eye to move from side to side while staying level. The superior and inferior oblique muscles let it move up or down and to the side. Most of these muscles are controlled by the oculomotor nerve. Friction from these movements would quickly damage the eye without lubrication. Tears released by the lacrimal gland are spread around by blinking, and provide lubrication for the eye. Tears also help remove foreign objects and bacteria that could cause damage. The superior oblique is a fusiform spindle-shaped muscle belonging to the extraocular group of muscles. It originates near the nose. Along with theâ€¦. The ophthalmic artery branches off from a major group of blood vessels in the head and neck known as the internal carotid arteries. The ophthalmicâ€¦. The optic chiasm or optic chiasma is an X-shaped space, located in the forebrain, directly in front of the hypothalamus. Crucial to vision, the leftâ€¦. The optic nerve is located in the back of the eye. It is also called the second cranial nerve or cranial nerve II. It is the second of several pairsâ€¦. The orbicularis oculi muscle is one of the two major components that form the core of the eyelid, the other being the tarsal plate. The orbicularisâ€¦. Combined with the cardiovascular system, the circulatory system helps to fight off disease, helps the body maintain a normal body temperature, andâ€¦. Humans are sexual, meaning that both a male and a female are needed to reproduce. Each is equipped with specific organs capable of producing specificâ€¦. The supraspinatus muscle is a rotator cuff muscle located in the shoulder, specifically in the supraspinatus fossa, a concave depression in the rearâ€¦. Read this next. Sclera Medically reviewed by the Healthline Medical Network. Superior oblique Medically reviewed by the Healthline Medical Network. Ophthalmic artery Medically reviewed by the Healthline Medical Network. Medial rectus Medically reviewed by the Healthline Medical Network. Optic chiasma Medically reviewed by the Healthline Medical Network. Optic nerve Medically reviewed by the Healthline Medical Network. Orbicularis oculi Medically reviewed by the Healthline Medical Network. Circulatory Medically reviewed by the Healthline Medical Network. Supraspinatus Medically reviewed by the Healthline Medical Network. Save yourself time and studying with the above video full of animations, visuals, and tricks to remember everything discussed below! Click below to check them out, and join to save time and help you study! The skull is made up of 22 bones that articulate with each other - 8 cranial bones and 14 facial bones. The remaining 7 bones in the head 6 auditory ossicles and 1 hyoid bone do not articulate with the rest of the skull, and they are often referred to as accessory bones of the skull as a result. In this post, we will discuss the cranial bones and sutures along with their anatomy and landmarks using labeled diagrams. By definition, the cranial bones form the surrounding cranium that encloses and protects the brain. Every EZmed post is filled with simple tricks to learn the material, and today we will use an easy mnemonic to remember the cranial bone names and anatomy. Make sure to also check out the EZmed facial bone mnemonic which will help you remember the names and anatomy of the facial bones as well! Image: The skull is made up of 8 cranial bones and 14 facial bones, for a total of 22 bones excluding the ear ossicles and hyoid. We will focus on the 8 cranial bones in this post. The cranial bones are attached to one another by sutures, which are fibrous bands of tissue that connect the bones to form the cranium around the cerebrum , cerebellum, and brainstem. The names of the cranial bones can be remembered using the following mnemonic:. This mnemonic not only helps you remember the cranial bone names, but also that there are 8 cranial bones osseous parts that form the skull. We are now going to discuss the anatomy and important features of each cranial bone in the order of the mnemonic. Image: The above mnemonic will not only help you remember the names of the cranial bones, but also there are 8 cranial bones osseous parts that form the skull. We will start

with the ethmoid bone shown in red on the diagram below. You can see the ethmoid bone shown in green and yellow on the 2 images below. The ethmoid bone sits at the roof of the nose between the 2 orbits or eye sockets, and it makes up the medial aspect of each orbit. Image: Top Left - Isolated ethmoid bone. Middle - Ethmoid bone is shown in green. Bottom Right - Ethmoid bone is highlighted in yellow. The ethmoid bone separates the nasal cavity from the brain, and it articulates with the frontal bone and sphenoid bone. The skull contains several different sinuses or cavities within the bones of the face and cranium. One of these sinuses is called the ethmoid sinus, and it is located in the ethmoid bone as the name suggests. The ethmoid bone has 2 important features - the cribriform plate and the crista galli. The cribriform plate is where the olfactory nerves travel through. The olfactory nerves are involved in smell, so it makes sense they will need to travel through the ethmoid bone which sits at the roof of the nose and separates the nasal cavity from the brain. The crista galli is where the membrane around the brain attaches, thereby preventing the brain from moving around in the skull. Image: The crista galli is a sail-like structure at the superior portion of the ethmoid bone where the membrane of the brain attaches to and serves as an anchor point for the brain. The occipital bone is located at the back of the skull and protects the underlying cerebellum, brainstem, and occipital lobe of the cerebrum. There are several important features to know about the occipital bone. First, the lambdoid suture connects the occipital bone to both parietal bones. As mentioned above, sutures are fibrous bands of tissues that attach the cranial bones to one another. The lambdoid suture is easy to remember because it is shaped like the lambdoid symbol as shown below. Image: The lambdoid suture connects the occipital bone O to both parietal bones P as shown on the left and right images. Image: The lambdoid suture is shaped like the lambdoid symbol. The next important feature to know about the occipital bone is the external occipital protuberance EOP. Third, the occipital condyles are protuberances located at the base of the occipital bone, and they articulate with the 1st cervical vertebra C1 or the atlas. The final important feature to know about the occipital bone is called the foramen magnum. The foramen magnum is a large hole at the base of the occipital bone where the brainstem travels through and connects the brain to the spinal cord. Image: The foramen magnum is a large hole at the base of the occipital bone where the brain stem travels through. The parietal bones are next as we continue through the mnemonic. There are 2 parietal bones, one located on either side of the skull, shown in blue. The parietal bones are surrounded by several different sutures. The most anterior suture is the coronal suture which connects the parietal bones to the frontal bone. The coronal suture is easy to remember because it travels along the coronal plane. Next, the inferior suture is called the squamous suture and it attaches the parietal bones to the temporal bones. The most posterior suture is the lambdoid suture, and it connects the parietal bones to the occipital bone as mentioned above. Image: The coronal suture is anterior and connects the parietal bones to the frontal bone. The squamous suture is inferior and attaches the parietal bones to the temporal bones. The lambdoid suture is posterior and connects the parietal bones to the occipital bone. The final suture is called the sagittal suture, and it connects the 2 parietal bones together at the top of the skull. The sagittal suture is easy to remember because it travels along the sagittal plane. Image: The sagittal suture connects the 2 parietal bones P together at the top of the skull. The coronal suture attaches the parietal bones to the frontal bone F. The lambdoid suture connects the parietal bones to the occipital bone O. The frontal bone is the forehead, and it connects to the parietal bones via the coronal suture as discussed above. The frontal bone makes up the superior aspect of each orbit. There is a foramen hole in the skull located above each orbit, known as the supraorbital foramen, in which the supraorbital nerve travels through. Image: The frontal bone is the forehead. It connects to the parietal bones via the coronal suture. There is a supraorbital foramen above each orbit in which the supraorbital nerve travels through. The temporal bones are next in the mnemonic, and one of them is shown in orange below. There are several features to know about the temporal bones. First, the squamous suture connects the temporal bones to the parietal bones as discussed above. Next, there is an anterior projection coming off the temporal bone called the zygomatic process. The zygomatic process joins with the zygomatic bone , specifically the temporal process of the zygomatic bone, to form the zygomatic arch which is the cheek bone you can feel on the side of your face. The zygomatic bone is one of the facial bones discussed in the EZmed facial bone blog. Third, the auditory meatus is a canal that travels through the temporal bone and connects to the inner ear. Next is the mastoid process, and it serves as an attachment point for some of the neck muscles. Fifth, the styloid process is an inferior projection where some of the tongue and larynx muscles attach. Lastly, the mandibular fossa is the point of articulation between the mandible and temporal bone. Image: The squamous suture attaches the temporal bones to the parietal bones. The zygomatic process joins with the zygomatic bone. The auditory meatus is a canal that connects to the inner ear. The mastoid

process is an attachment point for some of the neck muscles. The styloid process is where some of the tongue and larynx muscles attach. The mandibular fossa is the articulation point between the mandible and temporal bone. The region on the side of the skull where the frontal, temporal, parietal, and sphenoid bones join together is known as the pterion. This part of the skull is thin, and the middle meningeal artery travels underneath it. Blunt trauma to the area can cause damage to the middle meningeal artery and subsequent epidural hematoma formation. It is the only cranial bone that articulates with all of the other cranial bones. The sphenoid bone is difficult to see on the side view of the skull, but it is actually shaped like a butterfly. Image: The sphenoid bone is shaped like a butterfly as shown in the bottom right. Other images of the skull show the sphenoid bone highlighted in yellow. The sphenoid bone has a depression in it, called the sella turcica, in which the pituitary gland sits. Image: The sphenoid bone has a depression called the sella turcica where the pituitary gland sits. There are several anatomical features of the sphenoid bone including the greater wing, lesser wing, pterygoid process, and body. Image: The sphenoid bone consists of the greater wing, lesser wing, pterygoid process, and body. Hopefully this mnemonic and overview helped you better understand the anatomy and important features of each cranial bone. If you found the content useful, leave a comment down below or provide any other suggestions for future topics! A weekly notification is sent right to your inbox filled with new blog posts, new videos, and exam prep! Sign up is on the bottom of this page or in the navigation bar. Perform well in class, ace your exams, and keep up with your medical knowledge throughout your career using:. Instagram: ezmedlearning - High yield exam content. Pinterest: ezmedlearning - Easy illustrations and flashcards. Feel free to use the contact button to reach out with any feedback or suggestions you may have for future topics! Thank you for using EZmed! Oct 30 Written By Austin Kosier. Prefer a Video? Sit Back, Relax, and Enjoy!! Show Me More! Introduction The skull is made up of 22 bones that articulate with each other - 8 cranial bones and 14 facial bones. View fullsize. Cranial Bone Mnemonic The skull has 8 cranial bones as mentioned above. Ethmoid Bone We will start with the ethmoid bone shown in red on the diagram below. It essentially serves as an anchor point for the brain. Occipital Bone The occipital b

atv inline fuel filter
xr400 wiring diagram
dish wiring diagram

one is next in the mnemonic. Image: The occipital condyles articulate with C1. Parietal Bones The parietal bones are next as we continue through the mnemonic. Frontal Bone Next is the frontal bone shown in yellow below. Temporal Bones The temporal bones are next in the mnemonic, and one of them is shown in orange below. Pterion The region on the side of the skull where the frontal, temporal, parietal, and sphenoid bones join together is known as the pterion. Conclusion Hopefully this mnemonic and overview helped you better understand the anatomy and important features of each cranial bone. Perform well in class, ace your exams, and keep up with your medical knowledge throughout your career using: Instagram: ezmedlearning - High yield exam content YouTube Channel: EZmed - Simple animations and videos Pinterest: ezmedlearning - Easy illustrations and flashcards Feel free to use the contact button to reach out with any feedback or suggestions you may have for future topics! Austin Kosier.