

# [Amandas case study](https://assignbuster.com/amandas-case-study/)

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The functioning parts’ of the skeletal system that is compromised in brittle bone syndrome is the diapers which is the top the main portion of bone, the epiphysis which is the distal part of the bone, the metastases the region between the diapers and epiphysis, the epiphysis plate which is the layer of hyaline arterial that allows the diapers of the bone to grow in length, the reticular cartilage the line layer of hyaline cartilage covering the part of the epiphysis where the bone forms an articulation with another bone and reduces friction and absorbs shock at freely movable loin’s, the medulla cavity that contains yellow bone marrow later in life, the endosperm that is connective tissue membrane that contains bone-forming cells. All of these combine to help with the functioning of supporting soft tissue and providing attachment for skeletal muscles. They protect internal organs and assist in movement together skeletal muscles.

They store and release minerals and contain red bone marrow, Inch produce blood cells and they also contain yellow bone marrow which stores triglycerides. All of these are affected with normal development with Manta’s brittle bone syndrome.

3. If I was Manta’s surgeon the layers of tissue I would have to cut through to fix Manta’s leg to get to her femur to the medulla cavity would be starting with the epidermis of her skin, next I would proceed through her dermis layer of skin, followed the hypodermic layer of skin. At that point after surgically cutting through the first three layers of skin I would be at her peritoneum of compact bone, then after cutting through the peritoneum into the compact bone I would be to the medulla cavity of Manta’s femur bone.

If we are going through even more technical terms I would actually start the incision at the femur which is located in a thicker region of skin area with the epidermis hen the stratum coroner, followed by the stratum lucid, then stratum granules, then stratum spumoni, then stratum Basel, then my next incision would be the the papillary region of the dermis followed by the reticular region of the dermis making my next incision into the hypodermic through adipose tissue, that would then bring me to the compact bone which is covered by peritoneum that would be a thin layer of sheath dense irregular connective tissue that surrounds the compact bone then I would make my next incision through the compact bone into the medulla cavity. C.

Manta’s mother should know that the medulla cavity (is the middle of the rest of the compact bone) is the right place for the rod to go into Manta’s femur because it grow with the bone. The reason the rod will grow with the bone is because the medulla cavity is not where the bone growth of Manta’s leg take place. The actual place that Manta’s leg grows is the epiphysis plate.

This plate is located at the metaphysic in femur bone. The metaphysic (is the neck of the bone basically) is the region of the bone teens the diapers(is the upper part of the compact bone) and epiphysis(is the lower part of the compact bone) of the bone. In a growing bone this is where the epiphysis plate is located.

The epiphysis plate is a layer of hyaline cartilage that allows the diapers of the bone to grow in length. When the bone growth length stops, the cartilage in the epiphysis plate is replaced by osseous tissue and the resulting bony structure is known as the epiphysis line. Linking, K. T. (n. D.

). Anatomy and Physiology 2nd edition. Wiley.