Chad Andrew Anthony

Growing Pains

Baby Book

Family Background

Mother is 40 years of age and father is 43 years of age. They are a middle class family, The mother works as a detective for the NYPD the father is train driver . They already have children together before this baby. The mother is African American. the father is of Latino decent. They live in a brown stone in brownstone in Harlem, New York . They have a set of twins both boys. And 1 boxer (dog).

In Utero Development

- **First trimester development**

Skeleton begins to develop at the 4th week of pregnancy. the embryo has three layers: the ectoderm is the outermost layer, from which the backbone develops. The ribs form next within the sixth week of pregnancy, while other skeletal bones begin formation within the tenth week.

second trimester development-

Tissue that becomes the skull and arm and leg bones begins developing in the 13th week of pregnancy. The ribs are visible at this stage. Bones continue to grow and strengthen during the remaining weeks of the second trimester.

third trimester development-

Bones are fully developed by week 35, But are still soft and flexible to allow the baby to make it out without harm. Development continues and bones harden throughout the last weeks of pregnancy. The fetus is considered to be full-term at 37 weeks, and the fetal bones are consistent with those of a newborn.

Its A Boy !

Water broke on week 30, panicking both mother and father not expecting the baby so soon quickly runs over to the hospital to check if everything is fine and as a precaution in case she goes into labor. The fluid is tested there by a doctor who finds a protein called fetal fibronectin within, which usually tells whether the baby will be born soon or not. For the babies safety and health he injects steroids into the mother to help the baby's lungs develop faster, and another drug to help delay the birth, though only for a short while. Hours of labor and precautions for both the baby and the mother led to a, slightly normal, birth of a 3lbs baby. We are barely given a glimpse of the baby before the doctors take it over to the Intensive care unit to watch over the baby and to see what, if anything, might be phyicaly wrong with it. Due to the early labor the baby came out with a breathing problem known as respiratory distress syndrome. The nurse suggested that he has RDS because he was struggling to breathe. A lung X-ray and blood tests confirmed the diagnosis. RDS is lack of protein called surfactant that keeps small air sacs in the lungs from collapsing. The baby received a treatment called continuous positive airway pressure (CPAP). CPAP delivers pressurized air to the baby's lungs through small tubes in the baby's nose or through a tube that has been inserted into his windpi

CPAP helps a baby breathe.

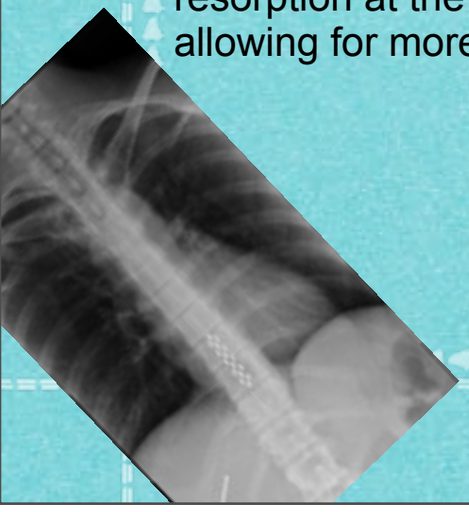
Early Nutrition

The primary function of the digestive system is to break down the food we eat into smaller parts so the body can use them to build and nourish cells and provide energy. This is hard fro baby Chad because he is premature. So when he's first born he has trouble doing this on his own. When baby Chad is first born he isn' t able to latch to the mothers nipple directly or drink from a bottle. So he' s fed through a tube until he is able to intake milk on his own. The food the baby eats/drink (milk) enters the body through the mouth. The moves the esophagus and stomach to push food from the mouth to the stomach and to stop back flow, or reflux, of the contents of the stomach. Next the it goes to the small intestine, which is in charge of digestion and most of the absorption of nutrients, vitamins, trace elements, fluids and electrolytes. Then the large intestine that absorbs the water. Finally move to the rectum, which regulates the flow of the waste. It' s important that the newborn pre-mature baby eats well and gains strength and nutrition because being that it's pre-mature he is weak.

Skeletal System

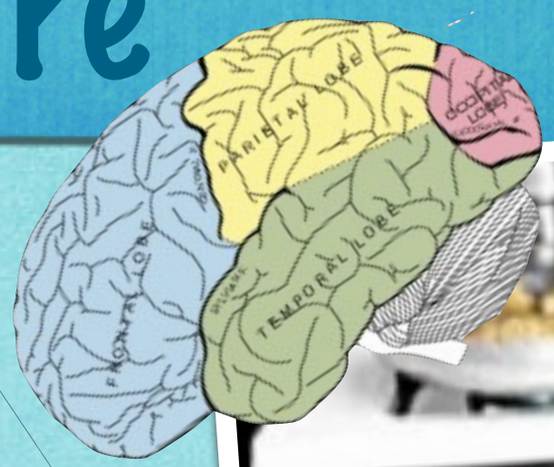
The baby's, and infant's skeletal system is important for many reasons 3 being... it provides shape and support, enables you to move, protects your organs. These three things are essential to a newborn baby. A newborn baby's bones are important as well. The Major types of bones: Long (such as the arm and leg bones), short (such as those in the wrists and ankles), and irregular bones (like the vertebrae within the spine) develop by Endochondral ossification, where cartilage is used to as a placeholder to be replaced by bone. Flat bones (like the skull and ribs) develop by intramembranous ossification, where bone develops within sheets of connective tissue. Compact cortical bone, representing about 80 percent of the mature skeleton, supports the body, and features extra thickness at the midpoint in long bones to prevent the bones from bending. Cancellous bone, whose porous structure with small cavities resembles sponge, predominates in the pelvis and the 33 vertebrae from the neck to the tailbone.

Bone growth is more complicated. Most long bones add width on the outside by a process referred to as subperiosteal apposition (layers added to those already existing), while losing bone on the inside by endosteal resorption (breaking down and reabsorbing material at the center of a mass). At the same time, long bones gain in length by adding to the ends of the bone. As they elongate, bones of this type go through a process called remodeling, during which they change in outer shape as well. Conversely, the individual bones of the skull grow by adding layers to the circumference, while gaining in thickness by adding layers at the surface while performing resorption at the inner surface at the same time. By this process, the skull expands and becomes thicker while allowing for more brain space within.



Learning Not to Play With Fire

Chad wonders into the kitchen one as his mother was getting ready to cook. she turns on the stove and turns around to set up the pot on the counter top. Chad's curiosity brings him over to the stove who's coils were turning a glowing red from the heat. interested by what the sensory nervous cells are sending from his eyes to his brain, he reaches out to grab it. As he does his general sensory nerves in his hands designed for pain and temperature named nociceptors and thermo receptors are already feeling the heat radiating off the stove, causing the nerves to send signals through the neurons by its finger like projections named dendrites, the part of the cell that receives signals, and leaving the cell though the axon, the part of it that sends signals. These signals are quickly passed though a reflex arc, passing though one another as its sent to the central nervous system, the spinal cord and brain. Once the signal is received the brain recognizes a treat to its body so it sends signals to pull back, ,making the body to quickly pull back in response and causing a reflex. chad innocently ignores this reaction and reaches out again, where his mothers motherly instincts forces her to turn around in time to see chad reaching out for the burning stove. She leaps forward and catches his hand.

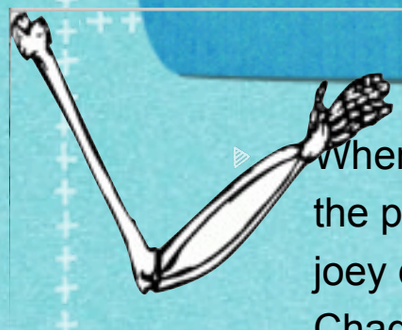


Toddler Nutrition

When Chad was first born he had trouble eating on his own and digesting his food. But Now at the age of 5 Chad's digestive system is fully functioning and he can now eat more advanced foods such as fruits, vegetables, and meats. It's important for Chad to have a good diet so that he stays healthy all the way into adult hood. To do so it's important that his diet consist of well rounded nutrients. Such as water which is essential for all body functions. Cabohydrates and fats, which will give young Chad energy. Proteins such as chicken, eggs, cheese and milk for body building a growth. Vitamins, which will help, build Chad's bones and strong teeth. And lastly minerals like iron, which is essential for our blood to be able to carry oxygen through out the body.

Now that All parts of Chad's body is now fully functioning such as his liver which is important because the liver plays a major role for three reasons. One being Carbohydrate metabolism is the maintenance of normal blood glucose levels. Second is fat metabolism which is when the liver breaks down fatty acids. Lastly protein metabolism which is used for removing ammonia from the body. Bing that Chad was premature there's several thing that could have been wrong with him. Luckily he only born with a minor breathing disorder. Chad could have been bore with Esophageal atresia which is congenital disorder of the digestive system and a birth defect.

Playground Incident



When Baby chad was 6 years old he was playing on the playground with his friends and his best friend joey dared Chad to climb the monkey bars by himself. Chad had never climbed the money bar on his own. His dad normally helps him. But he didn't want to seem as though he was a "Scaredy Cat" . So Chad tried to climb across the money bars by himself. He was doing fine at first but once he made it to the 4th monkey bar he had no strength to hold on any longer. Chad's palms became sweaty and his fingers begin to slip off the bars. Chad then fell and when he did he hit the ground hard. Chad tried to lift his self off the the ground with both is arms but he couldn't do so because he right arm was in extreme pain. When chad fell he landed on his right hand causing him to break his right forearm. When Chad was taken to the doctors he was given an x-ray. The doctors told chads parents that he had a ulnar shaft fracture . When Chad fell he isolated his ulna. He was given fracture brace and was told that it would heal in about 6-8 weeks because a period of immobilization will allow the bone to heal adequately.