Amazing facts about human body pdf

There are several ways to consider the composition of the human body, including elements, the type of molecule or the type of cells. Most of the human body consists of water, H2O, with bone cells consisting of 31% water and 83% lungs. Therefore, it is not surprising that most of the mass of a human body is oxygen. Carbon, the base unit for organic molecules, comes in second. 96.2% of the mass of the human body consists of only four elements: oxygen, carbon, hydrogen and nitrogen. Oxygen (O) - 65% - Oxygen along with hydrogen water form, which is the primary solvent found in the body and is used to regulate osmotic temperature and pressure. Oxygen is found in many key organic compounds. Carbon (C) - 18.5% - Carbon has four bonding sites for other atoms, making it the key atom for organic chemistry. Carbon chains are used to build carbohydrates, fats, nucleic acids, and proteins. Breaking ties with carbon is a source of energy. Hydrogen (H) - 9.5% - Hydrogen is found in water and in all organic molecules. Nitrogen (N) - 3.2% - Nitrogen is found in proteins and nucleic acids that make up the genetic code. Calcium (Ca) - 1.5% - Calcium is the most abundant mineral in the body. It is used as a structural material in bones, but is essential for protein regulation and muscle contraction. Phosphorus (P) - 1.0% - Phosphorus is found in the ATP molecule, which is the primary energy carrier in cells. It's also found in the bone. Potassium (K) - 0.4% - Potassium is an important electrolyte. It is used to transmit nerve impulses and regulate the heartbeat. Sodium (Na) - 0.2% - Sodium is an important electrolyte. Like potassium, it is used for nervous signaling. Sodium is one of the electrolytes that helps regulate the amount of water in the body. Chlorine (Cl) - 0.2% - Chlorine is an important negatively charged ion (anion) used to maintain fluid balance. Magnesium (Mg) - 0.1% - Magnesium is involved in over 300 metabolic reactions. It is used to build the structure of muscles and bones and is an important cofactor in enzyme reactions. Sulphur (S) - 0.04% - Two amino acids include sulfur. The sulphur forms of bonds help to give proteins the shape they need to perform their functions. Many other items can be found in extremely small quantities (less than 0.01%). For example, the human body often contains traces of thorium, uranium, samariu, tungsten, beryllium and radium. Oligoelements considered essential in humans include zinc, selenium, nickel, chromium, manganese, cobalt, and lead. Not all the elements found in the body are essential for life. Some are considered contaminants that seem to do no harm, but do not serve any known function. Examples include cesium and titanium. Others are actively toxic, including mercury, cadmium, and radioactive elements. Arsenic is considered for humans, but serves a function in other mammals (goats, rats, hamsters) in quantities of traces. Aluminum is interesting because it is the third most common common in the Earth's crust, but its role in the human body is unknown. While fluoride is used by plants to produce protective toxins and has apparent beneficial intake in humans. You may also want to view the elementary composition of a medium mass human body. Chang, Raymond (2007). Chemistry, 9th edition. McGraw-Hill. ISBN 0-07-110595-6.Emsley, John (2011). Nature Blocks: An A-Z guide for items. OUP Oxford. p. 83. ISBN 978-0-19-960563-7.Frausto Da Silva, J. J. R; Williams, R. J. P (2001-08-16). Biological chemistry of elements: Inorganic chemistry of life. ISBN 9780198508489.H. A., V. W. Rodwell; P. A. Mayes, Review of Physiological Chemistry, 16th ed., Lange Medical Publications, Los Altos, California 1977.Zumdahl, Steven S. and Susan A. (2000). Chemistry, 5th edition. Houghton Mifflin Company. p. 894. ISBN 0-395-98581-1. Olivia Bell Photography/Moment/Getty Images People have many body parts, including 206 bones and more than 600 muscles. Scientists discovered a new part of the body, a knee ligament now called anterolateral ligament in 2013 at the University of Leuven, Belgium. The anterolateral ligament of the knee was found to play a crucial role in the anterior cruciate ligament tears. New ligament research is being done. The skeletal system in the body consists of 206 bones that are arranged in the axial skeletal system and the appendix skeletal system. The axial skeletal system runs along the axis of the median line in the body and consists of 80 bones including the skull, hyoid, auditory ossicles, ribs, sternum and spine. The appendix skeleton consists of 126 bones including the upper limbs, lower limbs, pelvic belt and pectoral belt (shoulder). There are three types of muscle tissue (more than 600 muscles) in the body, including skeletal muscle, cardiac muscle and smooth muscle. The skeletal muscle is a kind of muscle that helps to create movement in the body. Skeletal muscles make up 40% of a person's body weight. The heart muscle is involuntary muscle in the body and make up the muscles found in the cardiac cavity. The smooth muscle is also an involuntary muscle, but it makes up the walls of organs, blood vessels and respiratory passages. The human body is truly amazing. Check out these fantastic facts: 1. About 80-90% of what we actually perceive as taste is due to our sense of smell. Advertising 2. Your heart beats 35 million times in a year. Over the course of an average life, the human heart will beat more than 2.5 billion times. 3. Your body has about 5.6 liters (6 liters) of blood. This 5.6 liters of blood circulates through the body three times a minute. In a single day, blood travels a total of 19,000 km, which is four times the distance along the U.S. from coast to coast. 4. The heart pumps about 1 million blood over an average lifespan - it is enough to fill more than 3 super-oil. 5. If all arteries, veins and from the human circulatory system were established from end to end, the total length would be 60,000 miles, or 100,000 km. That's almost two and a half times around the Earth! 6. Even if its thickness averages only 2mm, your skin becomes one-eighth of all blood supply. 7. The skull looks like there's only one bone. In fact, it consists of 22 separate bones, cemented together along rigid joints called sutures. 8. If the digestive tract of a human adult were stretched, it would be 6 to 9 m (20 to 30 ft) long. 9. Red blood cells can live for about four months circulating throughout the body, feeding 60 trillion other body cells. Red blood cells make about 250,000 round trips to the body before returning to the bone marrow, where they were born, die. 10. Human hair grows about 1/4 inch (about 6 millimeters) each month and continues to grow for up to 6 years. The hair then falls out and another grows in its place. 11. The average healthy mouth produces about 600 millilitres of saliva each day. That's enough to fill a 12-ounce bottle of juice. 12. The fastest nerve cells are carrying messages along their axons at a staggering 130 meters per second (268 mph). Mesentery was once thought to be part of the digestive tract, but two scientists say it is actually the 79th organ in our bodies. Share on Pinterest The announcement that the human body has a new organ can help restore balance in a universe that has been tilted from its axis since Pluto was relegated to a dwarf planet. The new organ is called mesenter, and everyone's digestive tract has one. Mezentery was once thought to be made up of separate structures, but was revealed in recent research to be a continuous organ. The organ is responsible for transporting blood and lymphatic fluid between the intestine and the rest of the body. According to J. Calvin Coffey, Ph.D., F.R.C.S., Professor of Surgery at Graduate Entry Medical School, University of Limerick, and University Hospitals Limerick in Ireland, We are now saying we have an organ in the body that has not been recognized as such until now. Read more: The new technology gives hope for leaky heart valves » Coffey, and his colleague Peter O'Leary, Ph.D., discovered for the first time that mesentery was an organ. In an email, Coffey explained his discovery to Healthline this way, I am primarily a surgeon operating on the large intestine and rectum. We have noticed that the technique we use on the left colon has the same anatomical basis as the techniques we use on the right. When I looked at this closer I noticed the reason for it was that the right and left colon have a mesentery attached. (In every patient. That's it, universal.) Curiosity of piqued, Coffey did a study examining the findings closer and noticed that - yes, indeed - both right and left regions of the colon do not have a distinct mesentery and background. In addition, these regions of mesentery were continuous with the regions of the associated mesentery small intestine, colontransversal, sigmoid colon, and rectum, he said. In fact, it's all a continuous structure. This means that classical anatomical teaching, which was talking about several separate mesenteries, was incorrect and that the mesentery associated with the small and large intestine was actually a material structure, Coffey said. So medical students who have memorized number 78 as the number of organs in the human body should plan on a little revisionist brain to remember the number 79.Read more: The new surgical probe focuses on cancerous tissue » The discovery is just the first step, Coffey said. He pointed out that while the mesentery structure is known, his function is not. Further studies could lead to a better understanding and treatment of abdominal and digestive diseases. Now we've established the anatomy and structure, the next step is function, Coffey told ScienceAlert. If you understand the function you can identify the abnormal function, and then you have disease. Put them all together and you have the field of mesenteric science... basis for a new field of science, he said. This is universally relevant because it affects us all. As a trained surgeon, Coffey is aware that, according to classical anatomical teaching, the right and left colon do not have a mesentery attached and, if a mesentery were present, then this should be considered abnormal. He went on to tell Healthline: Some texts suggested that the right and left colons had a vestigial or rudimentary mesentery, attached immediately behind them. So what we found surgically was very different from what we were taught anatomically. A sure sign of the change in status is that the mesenter ye was accepted as an organ in Gray's Anatomy, the world's most well-known series of medical textbooks. Although no one in the field seemed to know who is the ultimate authority to say yes or Nay to organ status, the evidence for the reclassification of this organ is now published in The Lancet Gastroenterology & Hepatology.Read more: Is da Vinci robotic surgery a revolution or a rupture off? » All this recognition has been centuries into coming. Leonardo da Vinci described the mesentery in the 15th century, but it was not given much attention. It seemed to be some kind of insignificant attachment. Now that we've classified this new organ, what good is it? Coffey said that mesentery is now becoming a valuable structure to study. There are a lot of diseases that we're staungating on, and we need to refresh our approach to these diseases, Coffey said Smithsonian.com. Now that we've cleared its structure, we can systematically examine it. We're in a very interesting place now, he said. However, it is not likely that the discovery of mesentery will gain any new respect for its neighbor, the vestigial appendix. Since we now know the anatomy of mesentery, we also have better a mesentery associated with appendix [mesoappendix], [mesoappendix], Said. Mesoappnix extends from the mesentery subsurface to the region where the small intestine continues as the right colon. Pluto, eat the heart of your dwarf planet. Out.