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Editorial

Fluid Bodies: An Overview

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EDITORIAL

Body fluids, also known as bodily fluids or biofluids, are the liquids that make up the human body. Total body water makes up about 60% (60–67%) of the total body weight in lean, stable adult men; it is slightly lower in women. The amount of body fat is inversely proportional to the same percentage of fluid compared to body weight. For example, a lean 70 kg (160 pound) man has around 42 (42-47) litres of water.

Health

The word "body fluid" is most widely used in medical and health contexts. Body fluids are known as inherently unclean in current medical, public health, and personal hygiene practises. This is due to the fact that they can spread infectious diseases like sexually transmitted diseases and blood-borne diseases. Body fluid transfers are avoided by universal precautions and safer sex practises. Body fluids have the potential to analyzed in medical laboratory in order to find microbes, inflammation, cancers, etc.

Clinical samples

Clinical samples are generally defined as non-infectious human or animal materials including blood, saliva, excreta, body tissue and tissue fluids, and also FDA-approved pharmaceuticals that are blood products. In medical contexts, it is a specimen taken for diagnostic examination or evaluation, and for identification of disease or condition.

Sampling:

Methods of sampling of body fluids include:

- Lumbar puncture to sample cerebrospinal fluid
- Blood sampling for any blood test, in turn including
- Arterial blood sampling, such as radial artery puncture

Osmosis is a mechanism in which water travels from one compartment of the body to another via semi-permeable cell membranes. Osmosis is the diffusion of water over a semi-permeable membrane from regions of higher concentration to regions of lower concentration along an osmotic gradient. As a result, depending on the relative amounts of water and solutes present in cells and tissues, water can flow into and out of them. To ensure normal operation, a proper balance of solutes within and outside of cells must be maintained. Water makes up about 75 percent of the body mass in children, 50–60 percent in adult men and women, and as little as 45 percent in the elderly. Since the proportions of the body given over to each liver, muscles, fat, bone, and other tissues change from infancy to adulthood, the percent of body water varies. Water makes up the majority of your brain and kidneys, accounting for 80–85 percent of their mass. Teeth, on the other hand, have the lowest proportion of water, at 8–10%. Body fluids are categorised according to their fluid compartment, which is a position that is largely isolated from another compartment by a physical barrier. The intracellular fluid (ICF) compartment contains all fluid found within cells by their plasma membranes. All cells in the body are surrounded by extracellular fluid (ECF). The fluid portion of blood (called plasma) and the interstitial fluid (IF) that covers all cells not in the blood are the two main constituents of extracellular fluid. The ICF is a part of the cytosol/cytoplasm that is contained inside cells. The ICF makes up about 60% of the total water in the human body, and it accounts for about 25 litres (seven gallons) of fluid in an average-size adult male.

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