<u>Our Body is</u> A collection of **cells**

The smallest unit that makes up an organism's body is called a cell. Cells can be unicellular or multicellular, and humans, animals and plants are generally multicellular. Humans are made up of approximately 60 trillion cells. The smallest cell is the sperm, which is approximately 2.5 μ m, and the largest cell is the sciatic nerve cell, which is approximately 1 m long.

Human cells originally start from just one cell, a fertilized egg. Initially, there is only one cell, but through a process called cell division, the number of cells increases by 2, 4, or 8 times. As they divide and increase in number, they split into different groups and some begin to differentiate. Similar organs and tissues are made from one type of cell. For example, skin and mucous membranes,

bones and cartilage, muscles and ligaments, and other cells that make up blood, such as red blood cells and white blood cells, share the same origin. The cells that form the basis for red blood cells creating differentiated populations from the same cells are now called "stem cells." In multicellular organisms, stem cells are undifferentiated or partially differentiated cells that can differentiate into various types of

cells and proliferate indefinitely to produce more of the same stem cell. They are the earliest type of cell in a cell lineage.

The cell cycle

Approximately 60 trillion cells are replaced every day even after adulthood, with the exception of some (such as nerve cells and skeletal muscle cells). That is cellular metabolism. The cell replacement cycle varies depending on the site, but the shortest is the epithelial cells of the intestinal tract, where they are produced in 3 to 4 days, and are excreted in the stool after completing their role in 1 to 2 days. Bone has a long cycle, which takes about 5 months.

Approximate cycle of adult cell replacement



参考資料 https://chubu-science.co.jp/tj-media/3699/ https://www.kango-roo.com/ learning/1554/ https://neurotech.jp/medical-information/how-many-human-cells-are-there/





Unbalanced eating, smoking, lack of sleep,

lack of exer-

cise, and a stressful life-

style slow

down your metabolism.

Prevent cellular aging

"Cellular senescence" that occurs with aging is due to the stoppage of cell proliferation induced by various stresses.

• Prevent oxidation and saccharification

While active oxygen plays an important role in protecting the body from pathogenic bacteria and viruses, when it occurs in excess it oxidizes and damages cells, making them unable to function smoothly. Additionally, if you consume too much sugar, your body won't use it as energy, and it will bind to proteins and cause glycation, leading to cell deterioration.

Do not eat until you are full,

Being hungry activates longevity genes and activates the function of cells to regenerate. This improves metabolism and rejuvenates cells.

Moderate exercise

Do Exercises that you can continue to do every day, such as walking and stretching.

Relief of stress

•Eliminate sleep deprivation

Magnus' Supplements

Improve your metabolism and energize your cells

Ginkgo CoQ10 Max SRP\$84/ 90 caps Super Garlic Plus SRP\$40/ 60 caps







60 trillion cells make up your body!