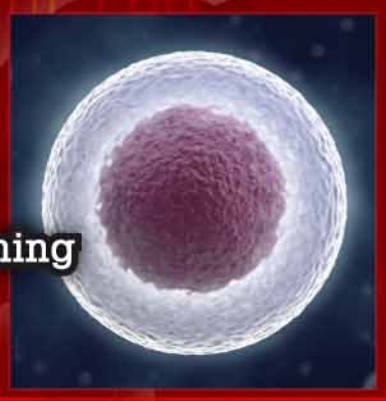
anything *but* simple

variety and complexity of human cells

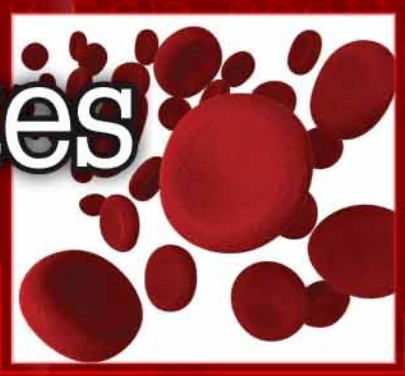
From a single cell, every part of the human body takes shape—every organ, muscle, and bone. By the time we reach adulthood, we will have over 30 trillion cells, each performing important tasks to protect and sustain us. Below are just six of the more than 200 distinct types of cells.

zygote
our small beginning



At our earliest stage of life, we are just one cell, called a zygote. Within that cell God has placed all the information needed to build our entire body with all its varied parts.

erythrocytes
red blood cells

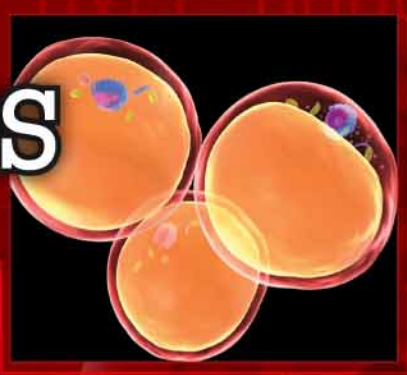


Supplying every cell in our body with life-giving oxygen is no easy task. Yet red blood cells (erythrocytes) are designed for the job. Once these cells mature, they get rid of their nucleus and some other parts to make more room for the oxygen-carrying molecule, hemoglobin. The cell's flexible, doughnut-like shape is the optimum design to move through little capillaries and transfer oxygen to body tissues.

neurons
transmitters

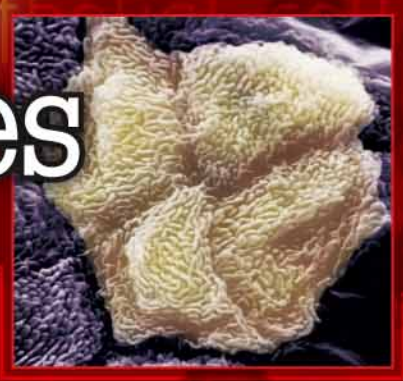
Every part of our body constantly communicates with the rest of our body, sending and receiving information. This information must be converted into electrical signals that are then directed to the appropriate part of the brain and processed. To help in this complex communication network are living nerve cells, or neurons, found throughout our body. These cells pass along electrical signals and relay commands to muscles and other cells that need to take action.

adipocytes
fat cells



Perhaps the most disliked cell in our body are adipocytes, more commonly known as fat cells. But don't despise your fat cells. Without them, we would die. They are specially designed to store energy in a semi-liquid state, which our bodies can access whenever we run out of energy directly from food. The average adult has 30 billion fat cells.

corneocytes
body armor



Overlaying our skin is a thin layer of dead cells, called corneocytes. The skin must constantly produce new "dead cells" to replace the old ones. These cells are welded together to form a protective armor no thicker than 0.01 mm (the thickness of clear plastic wrap that we use to cover food).

osteocytes
bone makers

Our bones must be both strong and flexible. So God made them out of a mixture of hard crystals (hydroxylapatite) and a leathery organic material (collagen). The cells that "grow bone" are called osteoblasts (literally "bone makers"). Osteoblasts make the collagen but not the crystals; instead of making the crystals, they secrete a material that attracts the minerals that will form the crystals. When these cells become buried in bone, they are called osteocytes.

Every cell reminds us just how "fearfully and wonderfully" God made every detail of our bodies (Psalm 139:14).