Fat Cells

Fat cells have a sac-like structure; they store energy in the form of fat molecules. Fat is a form of semi-liquid energy. If you gain excess weight, fat cells increase in size up to four times to store the fat molecules.



Cell Station 1: Skin Cells

Skin cells create a solid barrier that protects you. A cut in the skin can be dangerous because it becomes an opening where invaders like bacteria and viruses can get in and cause an infection. Skin keeps out invaders from the outside world that can make you sick. Skin is the largest and fastest-growing organ you have in your body.



Cell Station 2: Red Blood Cells

You have a system of tubes in your body (called *veins* and *arteries*) that carry blood to every cell in your body. All your cells need food and oxygen to survive. Red blood cells carry food and oxygen to your cells. Red blood cells also take a waste material (carbon dioxide) away from your cells. Your blood circulates from the heart to the lungs and from the heart to the body.



Cell Station 3: Bone Cells

The bones in your skeleton are made of cells. The bone cells fill with calcium from such foods as milk, yogurt, and cheese. The bones then become very hard and strong so that they can support your body. The skeleton supports the weight of your entire body, and is what allows your body to have shape and structure. Without bone cells and a skeleton, you would be a blob of jelly on the floor.



Cell Station 4: Nerve Cells

Nerve cells collect messages from the outside world and send messages to the brain. The brain then sends messages to your body parts, like the arm or leg, to tell the parts what to do. Nerves also store memories in your brain.

the nerves in the brain and body





Cell Station 5: Muscle Cells

Your bones are covered by muscles. Muscles help you move around. Muscles are made of many muscle cells bundled together. To allow a body part to move, muscles expand and contract, just like an elastic rubber band.



Cell Station 6: Challenge—Small Intestine Cells

The intestine is a tube-like organ where your food is digested. *Digested* means that the large food molecules are broken down into very small food molecules. The cells that line your small intestines take in the very small food molecules and move them to your blood. The walls inside the small intestine are very wavy so that there are more small intestine cells to take in food. If you didn't have all those waves in the intestine wall, you would need to eat at least 10 times more to get the same amount of food into your blood.

