



## Your Health

### Organ Origami©

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Vocabulary & pronunciation study by Sue Thomas ©

Words are explained alongside the text, with some translations

Stressed syllables are underlined and in bold\*

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What's the largest organ you can think of in the body? The **stomach**? The **liver**? Perhaps the **brain**? What if I told you that the largest organ was **actually** the **skin**.

The definition of an organ is a collection of cells that work together to **carry out** a single function in the body. These cells are **specialized** to carry out the necessary actions needed for the organ to function. An example is stomach cells **releasing** acid during the **digestive** process.

During this article we'll briefly talk about some of the **main** organs and what they do. We'll then discuss some of the less known organs and their importance.

So let's start with the main organs you've **more than likely** heard of. Here's a brief summary of the **heart**, brain, liver, stomach and skin.

The Heart: This is probably the most well known organ. The heart is used to pump blood around the body and **get oxygen** to all organs. In order to work correctly, oxygen is vital; **hence** the **circulatory** system has **arteries** and veins. Arteries carry blood with high levels of oxygen to the organs and veins carry blood with low levels of oxygen **away from** them.

The Brain: The brain is **arguably** the most important organ of the body. It is responsible for thinking, feeling, **processing** information and your responses. It has some element of **plasticity** which means it can adapt throughout life.

**liver** (n.) le foie

**brain** (n.) le cerveau

**actually** (adv.) in reality

**skin** (n.) la peau

**to carry out** (phrasal vb.) to perform something

**to release** (vb.) to liberate

**main** (adj.) principal

**more than likely** (exp.) very probably

**heart** (n.) coeur

**to get** (vb.) to deliver

**hence** (adv.) for this reason

**away from** (adv.) in the opposite direction

**arguably** (adv.) very probably

The Liver: The importance of the liver cannot be **underestimated**. Even though skin is considered the largest organ, the largest internal organ is the liver. It can **weigh** between 1.2 and 1.5 kilograms! The liver's main job is to secrete certain **substances** to be used **elsewhere** in the body. It is vital to **detoxify** chemicals and **metabolize** drugs. It also makes bile which is essential for digestion. In case that wasn't enough, the liver also makes **clotting factors** that stop you bleeding after you've cut yourself.

The Stomach: I'm sure we all know what the stomach does. But as with every organ in the body, it's more complex than you think. The stomach digests food both **chemically** and **mechanically**. Acid is released from the glands in the stomach **lining** which not only **break down** the food, but also protects against any **harmful** bacteria.

The Skin: Yes, believe it or not this is an organ. It consists of several different types of **tissues** including **sweat glands**, hair **follicles** and many different skin type **layers**. It not only provides protection and gives us the sense of touch but is also very important in **temperature** regulation.

Now that we've **recapped** some of the main organs in the body, what about those that aren't as well known like the **pituitary**, **spleen**, **thyroid**, **gall bladder** and **pancreas**?

The Pituitary: This a very small organ (about pea sized) located just **underneath** the brain. It's debated whether or not the pituitary is classified as an organ as it is **technically** a gland. Its main function is the release of hormones that **control** growth, **metabolism**, puberty, reproduction, stress and **breastfeeding**. For such a small gland it has a big influence!

The Spleen: You may have heard of this **bursting**. The spleen is highly **vascular** which means that a lot of blood **runs through** it, hence bursting it can lead to some serious blood loss. The spleen's function is to act like a blood filter. It cleans the blood of dead or **malfunctioning** cells. It can also remove viruses, parasites, bacteria or any other **foreign particles** in the blood. A very important organ indeed.

**to underestimate** (vb.) to think than something is less important than it is

**to weigh** (vb.) to have a particular weight

**elsewhere** (adv.) in other places

**clotting factors** (n.) facteurs de coagulation

**lining** (n.) a layer on the inner surface

**to break-down** (phrasal vb.) separate into component parts

**harmful** (adj.) damaging

**tissue** (n.) a group of similar cells forming a structural part of a living thing

**sweat glands** (n.) les glandes sudoripares

**layer** (n.) level / stratum

**to recap** (vb.) to tell in a shortened form

**pituitary** (n.) l'hypophyse

**spleen** (n.) la rate

**gall bladder** (n.) la vésicule biliaire

**to control** (vb.) to regulate

**breastfeeding** (n.) feeding a baby human milk

**to burst** (vb.) to explode

**to run through** (vb. + prep.) to go in at one end and out the other

**foreign particles** (adj. + n.) something which should not be there

The Thyroid: The thyroid is needed to produce **hormones**. These hormones can have some very long names but they can cause increased heart and **breathing** rates. They also play a large part in **metabolism** and can lead to weight changes if they **get out of balance**. Thirdly, they have a role involving bone formation.

The Gall bladder: This one is simple. The gall bladder's primary task is to store bile produced from the liver as we explained earlier.

The Pancreas: The pancreas produces many **enzymes** that help with digestion, but it's most famous for the production of **insulin**. Insulin is needed to absorb glucose which is the body's primary energy source. **Diabetes** Type 1 causes the body's immune system to attack the **pancreatic** cells that produce insulin, so that insulin is no longer made.

While we are busy **running about our lives**, we often forget what's going on in the **background**. This week's advice: Take some time to admire the **complexity** and **well-oiled** machine that is the human body.

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**breathing** (n.) respiration

**to get** (vb.) to become

**out of balance** (exp.) out of equilibrium

**running about our lives** (exp.) living our everyday lives

**background** (n.) something which is happening but which we don't notice

**well-oiled** (adj.) operating with efficiency

**\*Tip!** Syllable Stress can help us to understand spoken words - if we know how to pronounce a word then we are more likely to hear it correctly and therefore understand it and be able to use it when we speak.

Let's take the words 'metabolism' and 'metabolic' as an example.

First count the syllables: 'me•tab•o•lism' has 4 syllables

'met•a•bol•ic' also has 4 syllables

Syllable Stress is when you say one of the syllables slightly louder and with more emphasis. So in this example we say: **metabolism** and **metabolic**