

Sense Organs

(Skin, Tongue & Nose)

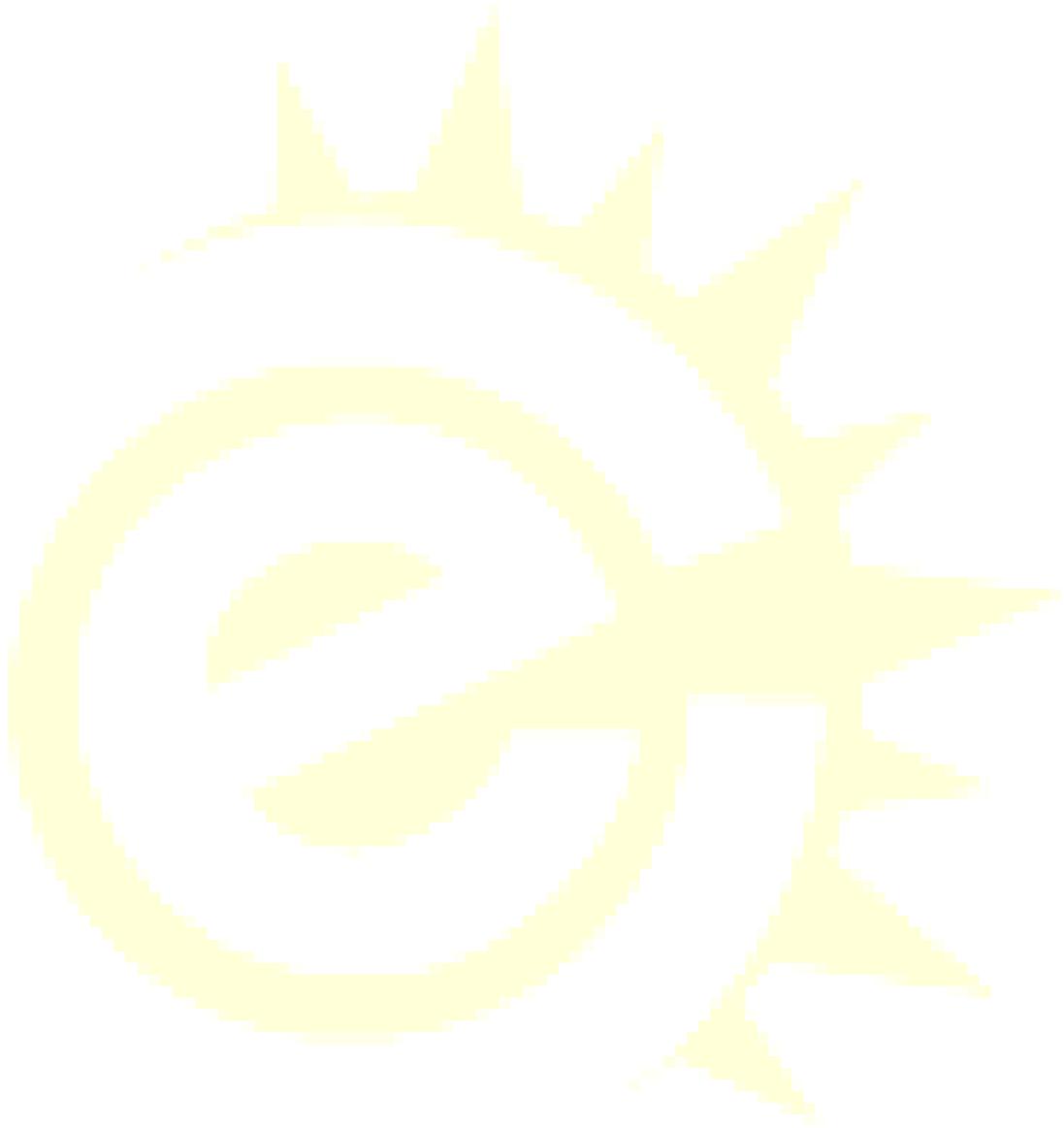
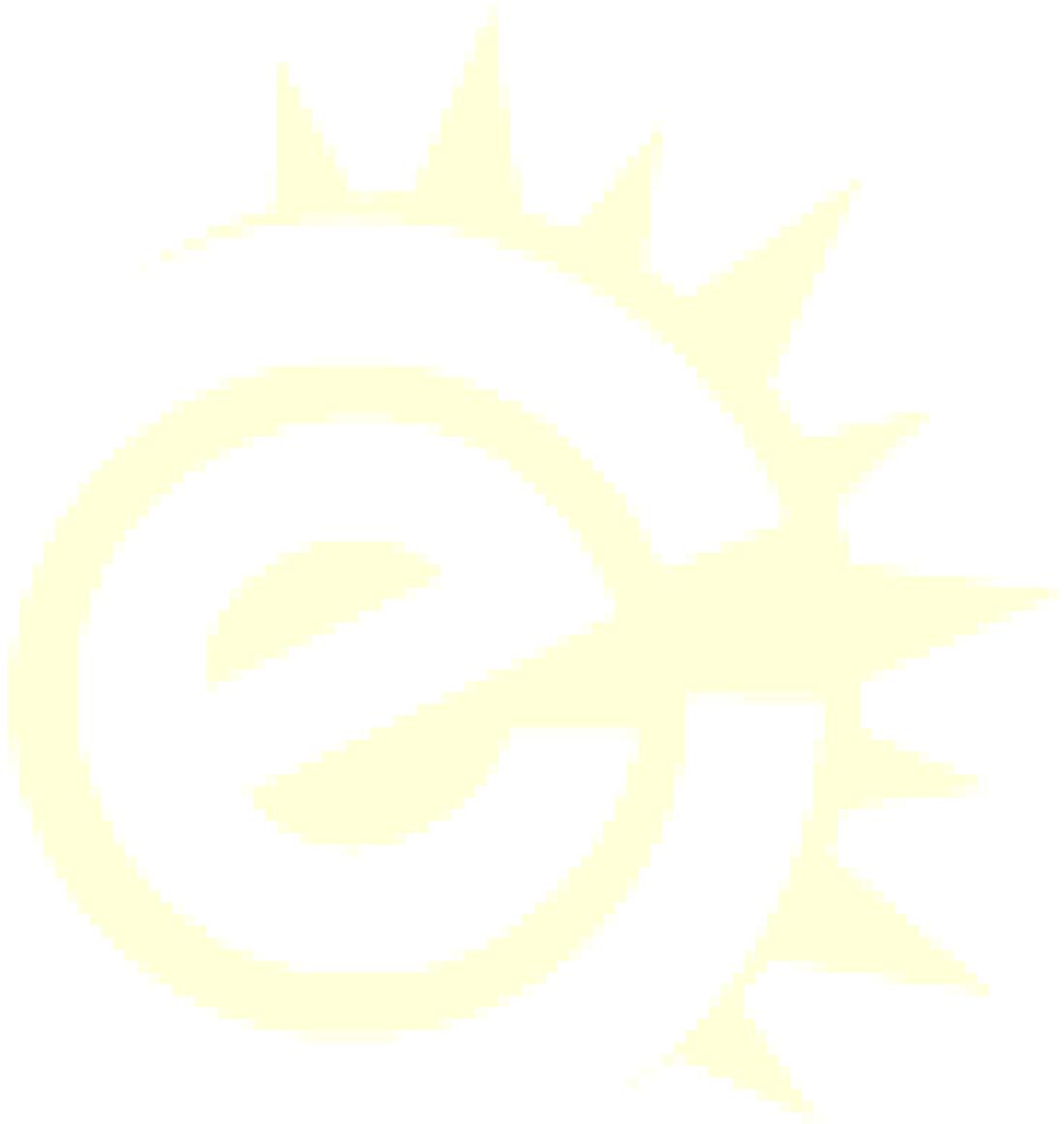


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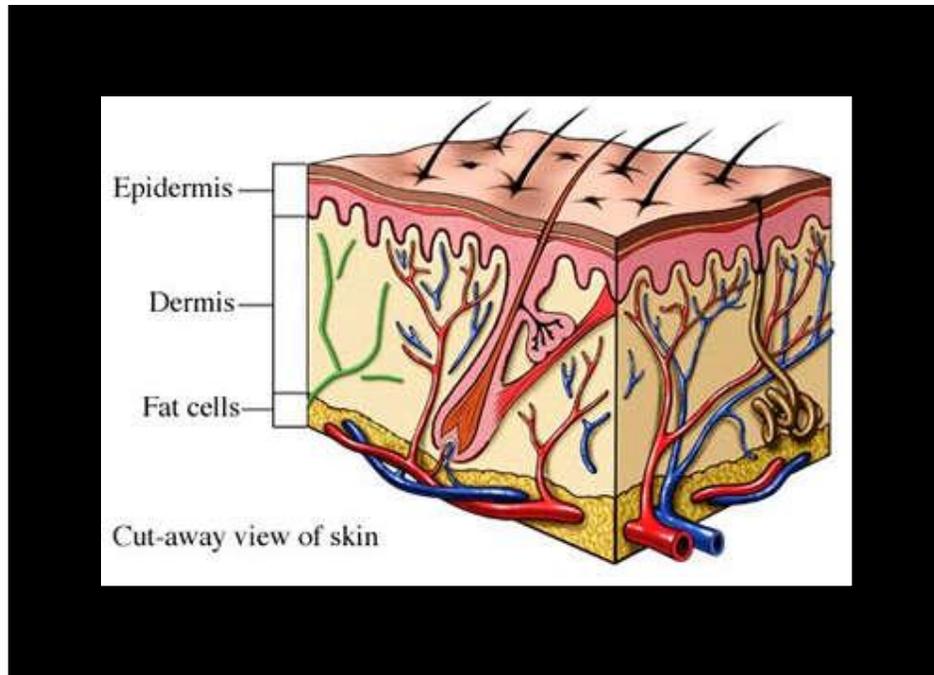
The Skin

The skin is the largest organ on the outside of the human body. It is composed of three layers: the epidermis, dermis and subcutaneous layer.

The *epidermis* is the outermost layer of skin. It consists of epithelial tissue in which the cells are tightly packed together providing a barrier between the inside of the body and the outside world.

Below the epidermis lies a layer of connective tissue called the *dermis*. In addition to providing support for the skin, the dermis has many other purposes. It contains blood vessels that nourish skin cells and nerve tissue that provide feeling in the skin. It also has muscle tissue that is responsible for giving you "goose bumps" when you get cold or frightened.

The *subcutaneous layer* is beneath the dermis and consists mainly of a type of connective tissue called adipose tissue. Adipose tissue is more commonly known as fat and it helps cushion the skin and provide protection from cold temperatures.



Some of the skin's functions include:

- 1) Making our sense of touch possible.
- 2) Regulating our body temperature through sweating. When we sweat, it evaporates on the surface of the skin and allows the body to be cooled.
- 3) Providing a barrier between ourselves and the outside environment. In this, essential nutrients and water are prevented from escaping out of the body.
- 4) Shielding us from harmful UV rays which come from the sun.
- 5) Producing vitamin D (with the help of the sun) to maintain strong bones.
- 6) Protecting us against disease. It acts as a first defense against disease as disease agents can't get through unopened skin.
- 7) Repairing itself after injury, allowing for the healing of wounds.

The skin is very sensitive and has different sensory receptors. These sensory receptors deal with pain, heat, cold, touch and pressure. They are distributed all over the body and when a message is received, they send impulses to nerve cells and then to the brain.

The skin should be protected using these simple steps:

- It should be washed daily to remove the build up of grime, dirt and pollution.
- A moisturizer should be used to keep the skin supple and hydrated.
- Sunscreen should be used for added protection against harmful UV rays
- It is also recommended that persons drink up to eight glasses a day of water, which helps to keep the skin hydrated.

The Tongue

The tongue is the large bundle of skeletal muscles on the floor of the mouth that manipulates food for chewing and swallowing (deglutition). It is the primary organ of taste, as much of the surface of the tongue is covered with taste buds. It is sensitive and kept moist by saliva, richly supplied with nerves and blood vessels to help it move. With its wide variety of possible movements, it assists in forming the sounds that make speech possible.



The Nose

Your nose allows you to smell and is a big part of why you are able to taste things. It is also the main gate to the respiratory system, your body's system for breathing. The nose has two holes called nostrils. When you inhale air through your nostrils, the air enters the nasal passages and travels into your nasal cavity. The air then passes down the back of your throat into the trachea, or windpipe, on its way to the lungs. When you exhale the old air from your lungs, the nose is the main way for the air to leave your body. The nose also warms, moistens, and filters the air before it goes to the lungs.

