Notes: Skin, Smell and Taste

The skin is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the body, covering its **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** surface

## Purpose of the skin

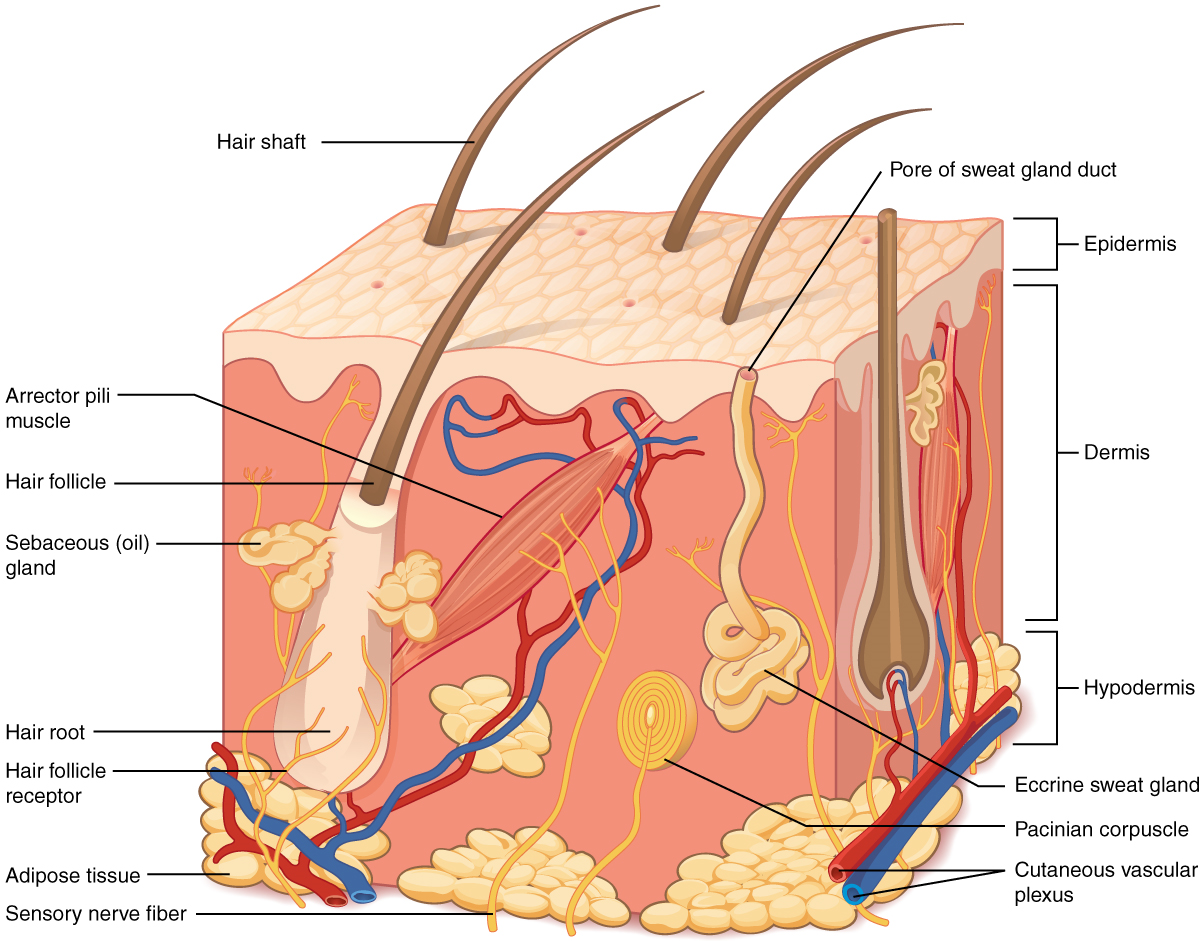
The skin has many functions:

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**the inner organs and cells
* Shields us from harmful **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* Excretes **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (e.g. sweating)
* Protects from **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**like bacteria
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**regulation
  + Insulation and evaporative cooling
* Makes **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* Helps to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the environment
  + **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**,**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
  + Health and emotions

## Structure of the Skin

The skin is composed of three different layers:

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**Epidermis**

The epidermis has a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** layer and a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** layer

The dead layer is the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** layer

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**causes the cells to burst and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

The living layer is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* A layer of cells that are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* New cells push old cells towards the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
  + This helps in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** process

The lower layer also contains the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* The pigment that gives skin its **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and helps **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** against the sun’s **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* Tanning is a result of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**being produced due to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* Keep in mind that too much sun exposure can lead to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in the cells that contain the melanin which may cause **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**!

The epidermis is our **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**against bacteria invasions and other environmental dangers

**Dermis**

The dermis is where you will find:

* Sensory**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** glands
* Secrete sebum (**\_\_\_\_\_\_\_\_\_\_**) to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the skin
  + Keeps in moisture and waterproofs
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** glands
  + Produce sweat that is then carried to the surface via the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**follicles

**Hypodermis**

Also sometime called the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

The hypodermis is mostly made up of **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** tissue (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**)

The fat cells act not only as an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**but also as a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## Sensory Receptors

There are three different types of sensory receptors in the epidermis:

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** sensory receptors for **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** sensory receptors for **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** sensory receptors to indicate pain

The different sensory receptors are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**over the body

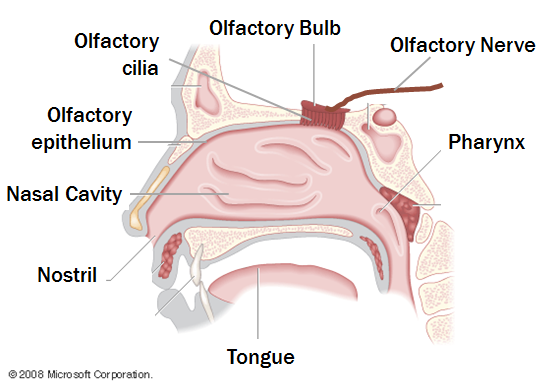
Ex:

* The cheeks and underside of the wrists are more sensitive to heat
* The soles of the feet are more sensitive to pressure

## The Nose

What is its function?

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



### *Smelling*

The nose is the organ associated with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The nerve cells associated with smell are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Most of these nerve cells are concentrated in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_at the tip of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Although we’re very \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ smells we are generally \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ them

* We are used to identifying what we \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_but not what we \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### *What is the sense of smell good for?*

We use our sense of smell to gather information from the world around us, such as:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (ex: fire, toxic chemicals, etc)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(?)

### *Smell and memory*

Smell is also strongly associated with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Scientists believe that since a mixture of particular smells is more novel than shapes for example, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## The Tongue

**What is the function of the tongue?**

* Has the sensory receptors for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Helps \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_around for chewing (mastication)
* Used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ food
* Important in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

All over your tongue there are little bumps called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Within some of these papillae are located the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Taste buds are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the tongue

### *Taste and Flavour*

The words taste and flavour are often used interchangeably

But humans can only detect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Flavour is actually the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* It is said that only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of flavour comes from the sense of taste, the other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is from the smell

Scientists \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that taste buds are spread out in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_on the tongue

They now believe that all taste buds can experience \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### *Other receptors*

There are also other receptors on the tongue to detect:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Hot and cold
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Prickling feeling
  + Spiciness
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Texture of food