

# CHAPTER 21

Before we get started this week, let's use our imagination, okay?

Imagine going to the park on a warm summer day...

As you run through the playground you **hear** other kids playing. You can **feel** the warmth of the sun on you. Later in the day, you may **see** your parents setting up a picnic for you. As you sit down at the picnic table, you **smell** and **taste** your lunch!

Makes you want to go outside and play right now, doesn't it?

In this made-up picnic at the park, you experienced five of your **external senses**

Hearing  
Touch  
Vision  
Smell  
and Taste



Our **senses** are messages that are sent to our brain when we use our hearing, touching, vision, smell and taste. The word “**external**” means “outside of”, so all of these **external senses** give us information about what is going on outside of our body!

Each of these five senses have a **sense organ** that is used to collect the information that is outside of our body.

### External sense

Hearing  
Touch  
Vision  
Smell  
Taste

### Sense organ

Ears  
Skin  
Eyes  
Nose  
tongue

Each of these sense organs sends a message to your **brain**. Your brain is another organ that controls what your body does!



In this chapter, we are going to look at two of these senses. I'll give you a guess on the first one. What do you think of when you hear...

# Eewwww! What stinks?

That's right! You better hold your nose, because we must be talking about your sense of...

## Smell!

Your nose is the sense organ for smelling. Think of your nose as a tunnel that does a lot of things with the air you breathe. If you have ever looked into your nose, you may have found a whole bunch of hair up there! This hair is very important because every time you breathe (which is about 20 times a minute), your nose hair helps clean the air!

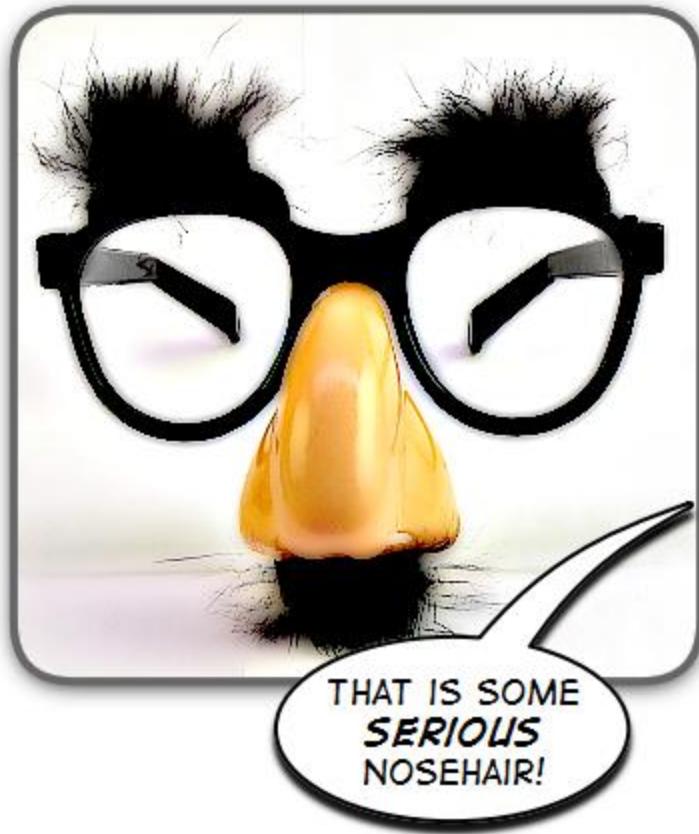
## How does it do that?

Your nose hair catches big pieces of junk you breathe in that is not air. This includes dust, bacteria, fungus, smoke and a lot of other things floating around in the air!

The hairs act like a screen in your nose. They are always trying to stop things from coming into your body.

You can find more than just hair inside your nose. It also

has a large amount of **mucus** ("mew-cus") inside it too. Mucus is a slimy, sticky goo that your body uses to trap some of the junk that enters your nose!



Your nose hair does not catch all of the junk that is floating around in the air. Your mucus catches the smaller pieces that your nose

hair misses!!! When the mucus has trapped a lot of stuff in a slimy, gooey ball, you have just made a booger!! And, as we all know, boogers must get out of your nose! Who wants to have all of that junk just lying around in you all day long? Yuck!

Your nose does not only make boogers all day long. It has another very important job to do... smell! Scientists believe that every human can sense about 4,000 to 10,000 different smells! Each one of these different smells act like a key in the back of your nose... that's right, a key!

Now, every key can open a lock, right? Each of these smells can unlock a different way for your body to react. Remember... your nose sends a message to your brain every time you smell something! It's your brain that tells your body how to react!

For example, if you took a big breath of your garbage, you may react by pinching your nose and running away!

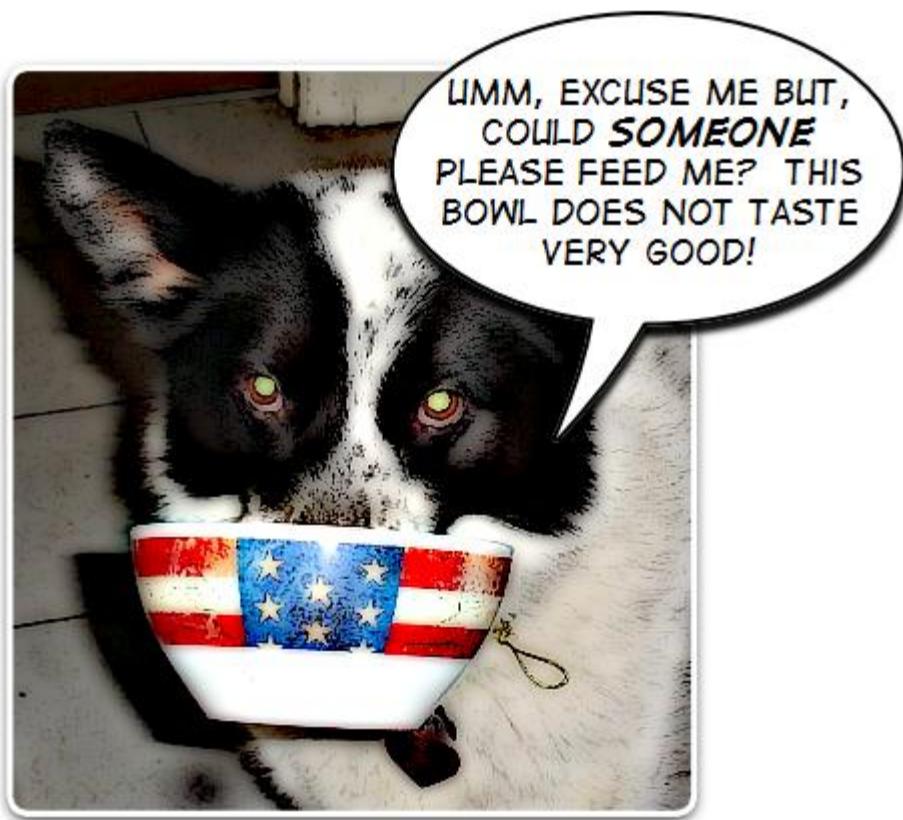


You wouldn't react the same way if you smelled a fresh rose, would you? Of course not! So what is better... the smell of fresh cookies baking in an oven, or the taste of one in your mouth?

## Tasting...of course!

The sense organ for your sense of taste is the tongue! This organ is covered with areas that can unlock different responses from your brain!

Remember the "lock and key" method that your nose uses to smell things? Well, your tongue does the same thing. The "locks" are all over your tongue and are called **taste buds**. These taste buds are used to sense four different flavors:



- |               |  |
|---------------|--|
| <b>Sour</b>   | (Think of a lemon or pickle...they are sour!!!)                              |
| <b>Salty</b>  | (I'm sure many of you have placed too much salt on your food before, right?) |
| <b>Bitter</b> | (Coffee beans are very bitter tasting!)                                      |
| <b>Sweet</b>  | (I think you know what this one is like!!!)                                  |

You have to thank your **saliva** ("suh-live-uh") for many of the wonderful (and not so wonderful) tastes that you can sense. Your saliva is the liquid that your mouth creates. When you put a cooking in your mouth you start to chew, right?

Your teeth grind your food and mix it with your saliva. This mixture is easily spread all over your tongue. Each of these pieces of food has thousands of different "keys" to unlock your taste buds on your tongue!

Do you  
remember this  
sentence?



Well, here it is again!

Your sense of smell and taste are connected to each other. In fact, they work together every day! Have you ever noticed that you have a hard time tasting your food when you have a cold? That is because **smelling** is a part of your sense of taste!

When you have a cold, your nose shuts down its "locks," and keeps you from being able to smell! This happens every time your nose is clogged up when you have a cold. Without your sense of smell, you cannot taste your food!

To test this out... pinch your nose and place a piece of hard candy in your mouth. It is very hard to tell what flavor it is! Now let go of your nose and ... **Blam!**

# Instant flavor!

Cool, huh?

In the next chapter, we are going to explore our last three external senses...

Fill in the “code” to answer the following question:

**What are sense organs and what do they do?**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
26	8	24	7	20	3	12	19	6	16	4	22	25	23	15	13	18	21	5	14	2	11	1	10	9	17

5 20 23 5 20 15 21 12 26 23 5 5 20 23 7 25 20 5 5 26 12 20 5

14 15 9 15 2 21 8 21 26 6 23 1 19 6 24 19 26 21 20

2 5 20 7 14 15 12 6 11 20 2 5 15 2 21

— — — — — — — — — — — —  
**20 10 14 20 21 23 26 22 5 20 23 5 20 5**

Match the words in the first column to the best available answer in the second column.

- |                   |   |
|-------------------|---|
| — External senses | 1) an organ that controls what your body does                                   |
| — Sense organs    | 2) a slimy and sticky goo   |
| — Brain           | 3) organs such as eyes  |
| — Mucus           | 4) a liquid created in your mouth   |
| — Taste buds      | 5) feelings that give us information about what is going on outside of our body |
| — Saliva          | 6) parts of the tongue that are used for the sense of taste                     |

Look into the mirror and draw a picture of your own face! Label all of the sense organs you can find!