

The Gustatory Sense: On the Tip of Our Tongue ~

Stick out your tongue and take a taste. Yum!

Concentrated on our tongue, our sense of taste is probably our most pleasurable sense. It is also one of the most complex. Taste happens when our mouth reacts chemically to something on the tongue plus any scents in the air.

The main purpose of our sense of taste is to warn us of safe and unsafe things to eat. The five different taste receptors on the tongue are:

- **Bitter** – this gag-worthy and almost universally unpleasant taste serves to warn us of possible poisons. The familiar bitterness of baking soda, unripe olives, unsweetened chocolate, hops, and citrus peels is mild compared to that of soap, detergent, medicines, and pesticides. Some people have a gene which makes bitter things taste even stronger. These are the ones who hate Brussel sprouts! [Read more about the science behind this.](#)
- **Salty** – salt tastes pleasurable in small amounts, but is nasty in the large doses where it becomes poisonous.
- **Sour** – this taste indicates acid is present and is found in vinegar and citrus which are pleasant tastes. But up the level, and acid becomes toxic to the body and disgusting to taste.
- **Sweet** – pleasantly sweet tastes on our tongue tell us that the substance is rich in carbohydrates and a source of high-energy
- **Umami** (savory) – a rich, hunger-creating taste found in foods with high levels of amino acids like meat, fish, and dairy products especially when heated.

OTHER “TASTES”

Spicy - Spicy is not considered a true taste – it actually real heat or pain on your tongue created by contact with capsaicin found in such items as hot peppers, ginger, black pepper, radishes, and horseradish.

Cool -Some plants such as mint and peppermint contain chemicals that can produce a feeling of coolness on the tongue.

Astringency – Characterized by a dry, rough, or puckering feeling on the tongue, this “taste” comes from a chemical found in unripe fruit and many wines. Think unripe banana and strong red wine.

Metallic -This is the particularly harsh, tangy taste of metals when they come in contact with your mouth.

Chalky – This dry, powdery taste seems to be a reaction to calcium, but has not been well-studied yet.

Fatty – Some of the taste receptors in our mouth seem to respond to fat as a creamy rich taste such as is found in oil, butter, and nuts. Some scientists are considering making this a sixth taste.

Starchy – Many people seem to be able to identify starch by taste alone. Again, scientists are not yet ready to name this one of the pure tastes as the chemical receptors have not yet been identified.

Hot and Cold – The actual temperature of the substance in the mouth also affects how it tastes. Very chill and very hot foods have less taste than room temperature ones. There is a cultural element in that we come to expect certain food to be hot and other cold. For example, most USA residents would reject soda heated to the temperature of coffee.

Here is an example from George Martin's Game of Thrones (pp 7-8) using the taste of metal as well as its temperature.

He whispered a prayer to the nameless gods of the wood, and slipped his dirk free of its sheath. He put it between his teeth to keep both hands free for climbing. The taste of cold iron in his mouth gave him comfort.

SOME INTERESTING FACTS ABOUT TASTE

1. Infants can start to taste while still in the womb at about ten weeks. At birth they can identify sweet and sour and have more taste buds than adults.
2. Infants are born preferring sweets. They develop bitter and salty recognition in the first six months.
3. Our taste buds change every 5 to 7 years. That's why our food preferences change.
4. Taste buds for all the tastes are evenly spread over the tongue. It is a myth that certain parts of the tongue only taste one thing.
5. Taste perception starts to decline around age 50.
6. While the ability to detect bitterness is essential in detecting poisons, we are slowly losing these receptors.

TASTE AND ITS ENHANCERS & DIMINISHERS

We have almost 2000 taste sensors on our tongue, but they are not alone. What we actually taste is a combination of taste with smell. These two senses carry the sensation of what is in the mouth via our cranial nerve and our facial nerve to the gustatory cortex in our brain. It is smell that allows us to identify so many different nuances of tastes.

When our sense of smell is not working well, we lose much of our sense of taste as well. Our taste buds can also be affected by the taste of what we ate just previously or by a smell in the air. Toothpaste can dull sweetness. The aroma of ham can make something taste saltier. When the smell in the air doesn't match the taste in our mouths, we are more likely to go with the smell. For example, if something is burning, all the food you eat will taste slightly burnt.

Loss of taste has been shown to be the 2nd most common symptom of COVID19. We also lose our sense of taste when we have a cold or sinusitis. The longer we are exposed to a taste the less intense it will seem. Research shows that changing the taste in our mouth by switching foods enhances our appetite and can make us eat more.

Even more interesting, taste is also influenced by the sound, appearance, and the consistency of the substance in our mouth. Foods can feel wet, slimy, dry, crunch, rough, sticky, and more. This article describes an interesting experiment with Pringle potato chips.

<https://www.newyorker.com/magazine/2015/11/02/accounting-for-taste>

FOOD AND TASTE

Most often, unless something untoward is going on (Like the hero getting a mouth full of dirt when he falls off his horse or a victim swallowing a poison), things we and our characters taste are usually food or drink items.

How food is served can also affect the way it tastes. A pleasing arrangement may cause our saliva to increase even before we eat it. A beautiful table setting can make a food taste more elegant and expensive. Wine in a crystal goblet tastes better than wine in a box.

How foods combine in the mouth can create new taste sensations. For example, do you keep your food in separate sections on a plate or do you mix everything up in a bowl? This article, by Annaliese Griffin, talks about how the different social ways of serving food affects how food tastes. <https://qz.com/quartz/1228313/the-reasons-why-food-tastes-better-in-a-bowl-than-on-a-plate/>

We also tend to have food favorites and "addictions." Other foods we cannot stand. Many preferences are established in the womb based on the food the mother eats. Others may develop from being eaten in moments of comfort or need. Most likes and dislikes can be traced to some experience with the food in one's past or with its appearance. Food in some families is used as a reward or punishment which can affect the taste and desire for a particular food.

Finally, there are strong cultural preferences for different tastes and food textures. Here are some interesting examples.

<https://www.bbc.com/future/article/20160125-why-some-cultures-love-the-tastes-you-hate>

Thought for Writers While there are times when characters end up with non-edibles in their mouths, for writers, the easiest way to add taste is in the context of eating. If you are writing a story that involves chefs, bakers, restaurants or cupcake clubs, inserting food items and even recipes is a cinch. But no matter what your story, including an eating scene or showing a character noshing on something or missing a favorite food will deepen the setting and allow the characters to interact in more social ways while at the same time adding the sensory element of taste to your scene.

TASTE AND EMOTION

How a person is feeling will also affect how something tastes. A person who is frightened or worried or nervous or sick may find the food they are eating, even if a favorite, to be tasteless or hard to swallow. This is due to the effect of having a dry mouth or a lack of saliva. People who are dehydrated will also have trouble tasting and swallowing. On the other hand, a happy moment may make saliva to gather in our mouths and cause a food taste intensify.

Thought for Writers Showing a change of taste as a character is eating something is a way to indicate a change in emotion. A sweet candy might turn sour or acid. And this can happen in our mouths or viscerally. Although we have no taste buds in our stomachs, one way to show emotion in our characters is to describe the condition of the food in our stomach and through our bodies. A hot fudge sundae might send sweet warmth through one's body. A bite of cake might turn bitter in the stomach after a character suffers embarrassment or hurt.

DESCRIBING TASTES IN OUR WRITING

Taste is one of the most forgotten senses in writing and yet when well-done, can make a scene more pleasant, more disgusting, and either way, more memorable. Taste and smell are so linked together that often you find these two described in the same sentence.

Food

Naming a familiar food may be enough to wake up the readers' taste buds. Describing it using one of the tastes listed above or comparing it to another taste or food or food memory will all work as well.

You can also describe how the food feels in the mouth. Foods come in a variety of consistencies. Food can be hard and crunchy, sticky or springy, chewy or gummy, or leave a pleasant or unpleasant aftertaste in the mouth.

Examples from novels

“She tasted one [an éclair]. Soft, dissolving in her mouth, delicately infused with fresh mint.” *Mmm. Perfect.*” *All for You* by Laura Florand

“She took a swallow of coffee. The bitter liquid trickled down her throat and pooled in her stomach.” *Close to the Skin* by Zara West

“She put the olive in her mouth. Chewed. Swallowed. It was delicious. A little ball of warmth sliding down her gullet and into her closed stomach, which opened just a little.” *Midnight Fever* by Lisa Marie Rice

She would feed me to bursting three times every day, and the last night before we left she would always make cheesecake, her cheesecake, which was baked golden on the outside and thick and white and crumbly inside and tasted just a little bit of apples, and she would make decorations with sweet golden raisins on the top. Novik, Naomi. *Spinning Silver* (p. 5).

“You need a taste of summer before it flees. In Highgarden there are fields of golden roses that stretch away as far as the eye can see. The fruits are so ripe they explode in your mouth—melons, peaches, fireplums, you’ve never tasted such sweetness. Martin, George R. R.. *A Game of Thrones* (A Song of Ice and Fire, Book 1) (p. 38).

Taste and Sex

Taste comes into play in sexual ways too. Skin can have its own unique salty taste. People’s lips and mouths can taste like the food they last ate. Lipstick and lip gloss have their own types of tastes.

*One thing to be watchful for is having people kiss after eating something a reader might find unpleasant or after the character has been sick.

Here are some examples:

“Glistening snow lands on her lipstick, shimmers for a moment and then dissolves into the blood red of her lips. I want to lean over and lick them off. She would taste like whiskey, and winter cold, and Leighton.” *One Little Kiss* by Robin Covington

I swept my tongue inside his mouth, the taste of him making me feel like I was going to combust—how could the inside of someone’s mouth taste so delicious that it made you instantly dizzy with lust? Sheridan, Mia. *Archer’s Voice* (p. 235).

Taste and Backstory

Like sound and touch our senses can elicit memories. Taste is a powerful way to do this.

An example

“She returned with an ice cream cup, a swirl of vanilla and orange, and Jules sat back in the chair and ate it, feeling memories dart around like fire flies, impossible to grab as they lit up just for a moment or two before fading out.” *Dangerous Behavior* by Nancy Bush

Taste and Metaphor

Finally, we can compare tastes to non-edibles. This is another way to show how a character is feeling. Be sure the metaphor fits the POV character’s voice and way of looking at the world.

Here are some examples.

“She took a sip of wine, which tasted like joy and sunshine.” *Midnight Fever* by Lisa Marie Rice

“I stopped trying and stood with my hands made into fists, and then I said, the words tasting like old rotten acorns in my mouth, “Pick up his legs.” Novik, Naomi. *Spinning Silver* (p. 30).

...when I tried to swallow, my tongue tasted dirt and minerals and the iron-metal blood of ancient battles. Blaisdell, Kerry. *Debriefing the Dead* (The Dead Series Book 1) (p. 41).

WHEN TO ADD TASTES

Places to insert a description of a taste -

- When eating or drinking
- When getting something in one’s mouth
- When feeling sick
- When breathing in fumes, vapors, odors
- During romantic moments
- To create a moment of memory or backstory

Taste Resources for Writers

[150 Ways to Describe the Taste of Food to Children and Adults](#)

[20 Words to Describe Specific Tastes and Flavours](#)

[Quick English: Words to Describe](#)

[Food Words](#)

Explore Further: Want some practice describing tastes?

1. Get a box of Jelly Belly Beans, cover up the labels and try to guess the flavor.
2. Or have a friend prepare a sampling of tastes for you. Since texture can be a giveaway, the foods should be ground or liquified. You will be surprised how removing the texture will change the taste sensation.
3. Keep a notepad nearby every time you eat and try to describe the tastes.

Bon Appetit!

Questions? Just ask

Zara

EXCERISE 4 Taste

Choose a taste that fits into what you are writing or plan to write.

Try to experience that taste directly, or if not possible, do a web search on “how does ___ taste” Using what you learn, write one sentence you could insert in your WIP. Please share.