

Science AMA Series: We research the way odor and taste influences how we eat, smell and feel. We also raise awareness of smell and taste disorders, of which are more common than you think. Ask us anything!

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So I've always been able to smell people. I assume it's pheromones, but if someone is upset or horny or pregnant or on their period, I can always tell. My friends don't like it because it's not what they want to show me, and it makes situations awkward. I smoke cigarettes to help get rid of the smells because they can be overpowering in small spaces. Why for how come this happens?

[Malhavoc89](#)

Steven here: And those perfumes typically contain pig pheromones...probably not much use.

Smells are important part of how we relate to each other, especially when we think of the smell of our child or our partner. But just because they are human smells that can evoke responses (memories, emotions, pleasure, etc.) does not mean they are pheromones, which evoke stereotyped behavioral or hormonal responses between two members of the same species.

So I've always been able to smell people. I assume it's pheromones, but if someone is upset or horny or pregnant or on their period, I can always tell. My friends don't like it because it's not what they want to show me, and it makes situations awkward. I smoke cigarettes to help get rid of the smells because they can be overpowering in small spaces. Why for how come this happens?

[Malhavoc89](#)

Hello, Duncan here. Some people will naturally have a better sense of smell than others, and some people are more sensitive to certain odours than others are. SO it might just be that you have a sensitive sense of smell. A point about pheromones - there's no concrete evidence for them functioning in humans, certainly not in the way that companies selling pheromone sprays like you to think they do! There's a great TED talk from researcher Tristram Wyatt on this:

https://www.ted.com/talks/tristram_wyatt_the_smelly_mystery_of_the_human_pheromone?language=en

So I have an extremely dulled sense of smell. To the point that I can only smell extremely poignant odors (ie I can smell popcorn but not chicken).

Is there anything I can do to reverse this? How much does it effect my sense of taste?

[ryan4588](#)

Hi Ryan, Duncan from Fifth Sense here. One thing we recommend to our members is smell training - see www.fifthsense.org.uk/smell-training. Studies have shown that the sense of smell can be improved by repeated exposure to odours - if you think about it, this is how perfumers develop their sense of smell, by training. There are lots of unanswered questions when it comes to smell training but it is worth a try. Stick with it and keep a diary to record your progress.

My wife has an EXTREMELY strong sense of smell (I can't wear scented products around her without making her ill) and also strongly prefers bland food. I've always heard scent & taste are closely connected, and we joke that she is a "super taster," with foods tasting much more strongly to her than anyone else -- thus the bland diet. Is this actually a thing or not?

[lovebyletters](#)

This is Steven. "Supertasting" (also described as "hypergeusia") is real (not to mention a subject of a They Might Be Giants song). Supertasting is correlated with an greater number of taste buds. Although this hypersensitivity to tastes is often tested for by assessing sensitivity to a single bitter tasting compound called PROP, these people typically show increased taste sensitivity to all taste qualities (sweet, bitter, salty, sour, umami). Super tasters may compensate for this increased sensitivity by seeking foods that are more bland (thus bringing it into their "normal" range).

It is less clear, at least to me, to what extent hypersensitive taste is correlated with an increased sensitivity to odors.

I have the feeling my ability to smell and taste has diminished since I was a kid (I'm 24 now). Everything is more bland now, I don't notice as much detail as I used to.

Is this normal due to aging or is this some kind of disorder?

[PM ME UR STASH](#)

Hi there, Duncan from Fifth Sense here. Smell or taste loss due to ageing doesn't tend to start to happen until much later in life, just like sight or hearing loss that occurs as a result of the ageing process.

I apologize in advance if this is a shitty question.

I have read that pregnant women have a heightened sense of smell and that it might be an evolutionary trait to help them stay away from food gone bad which might not be good for the fetus.

Then there are those people who find some food items disgusting (based on it's smell and/or taste), when a large majority of the population finds it great. My brother for e.g., finds the smell of cucumbers so disgusting that he gags if it's close to his face. Could there be a scientific logic behind this? Could his disgust to these certain food items be his body telling him to stay away from something?

[ThomasSchiff](#)

Steven here: There is a lot of anecdotal evidence for smell changes accompanying pregnancy, both in sensitivity and in hedonics (that is, whether you think the smell is good or bad). There is some interesting work in mice suggesting that this could result, at least in part, from the action of sex hormones on the olfactory system itself. To what extent this reflects an evolutionarily derived protection mechanism is unclear. A lot of hedonic responses to certain odors or tastes are learned. For example, babies generally dislike bitter, but with repeated exposures can become liked and even preferred, especially in social or pharmacological contexts that are rewarding...for example, the common preferences for dark roast coffee and highly-hopped beers.

I've heard that the reason cilantro tends to be "love it or hate it" is that some people have a gene that makes it taste like detergent. Any truth to this?

[foxhole_atheist](#)

Steven here: The difference in your perception of the flavor of cilantro (soapy vs. what I would describe as grassy) seems to be very much influenced by genetic differences in one or more odor receptors in your nose. A clear example of to what degree smell contributes to your perception of flavor.

This might also be a good place to point out that, as a colleague once said, none of us is normosmic. In other words, those of us who have a largely functional sense of smell can differ in some of the specific odors we can detect due to genetic differences in the ~400 different odor receptor genes we have. For example, while I smell the grassiness of cilantro, I cannot smell the compound androstenone (this is a common type of "specific anosmia."

Hey there! I'm a congenital anosmic - so, no sense of smell since birth. A few questions, I think.

Based on my own quick research, I've been told that I can't taste roughly 3/4 of what everyone else can. How accurate is this?

My anosmia also seems to be isolated - so no other 'disease' is attached to it. Any ideas on the likeliness of it being inherited?

Do you happen to know how I could volunteer myself for research?

[suchproblemchildren](#)

Hi, Duncan here. What I'd say is that there's no way of measuring how much you can taste in relation to other people - for starters we are all different and will all have different sensory abilities, to an extent. What I'd say is that it's important to be aware of what the sense of taste actually is - the 5 widely recognised basic tastes are salt, sweet, sour, bitter and umami. The sense of smell contributes a great deal of the overall flavour of food - smell and taste combine to give flavour. Read more on our website here: <http://www.fifthsense.org.uk/what-is-taste/>

In terms of congenital anosmia, it can indeed be genetic. I'm going to stop at this point and allow Steve to join the conversation....

Can medications affect smell and taste?

[itgotthehoseagain](#)

Hi Duncan here. Yes medications can affect smell/taste. I met a friend of mine a couple of weeks ago who has been undergoing chemotherapy. He was telling me how he'd started getting this strange

sweet/salty taste in his mouth all the time. Some medicines can cause a metallic taste too.

I have an average sense of smell. Any tips or tricks to an above average sense of smell?

[rickmuscles](#)

Hi Rick, Duncan here. Hochizo's comment below is very accurate. This is how perfumers are so good at smelling - training! I've already mentioned this in another reply but one thing we recommend to our members is smell training - see www.fifthsense.org.uk/smell-training. Studies have shown that the sense of smell can be improved by repeated exposure to odours. A bit part of this is attentiveness and awareness - don't just smell, think about what you are smelling, write down what it makes you think of - colours, feelings, places - anything you think of. And keep a diary.

How does short/long term smoking affect your taste and smell? Is it possible to restore what it damages?

[JohnGalt4](#)

Hi John, Duncan here. It certainly doesn't do either of them any good! Smoking can damage the sense of smell and taste. I'm not aware of anything that can be done to restore the damage done. I guess whether any recovery takes place (after stopping of course) will depend on how much a person has smoked and for how long, i.e. the severity of the damage

When smelling or tasting something, the first bite or sniff is the strongest unless I smell or taste something else before returning to the initial scent/ flavor. What is happening? Is it in my brain or in my tastebuds/scent receptors that causes the scent or flavor to seemingly diminish?

[AnnieAnonymous](#)

Hi Annie, Duncan here. We do get used to smells pretty quickly (I exclude myself from 'we' of course!) - if you think about walking in to a really smelly place - the odour is initially very strong, then quite quickly it seems to reduce in intensity.

When smelling or tasting something, the first bite or sniff is the strongest unless I smell or taste something else before returning to the initial scent/ flavor. What is happening? Is it in my brain or in my tastebuds/scent receptors that causes the scent or flavor to seemingly diminish?

[AnnieAnonymous](#)

Steven here: Adaptation to an odor or taste seems to occur at two places...at the sensory organ itself (that is, the olfactory epithelium in the nose or the taste buds in the mouth) and in the brain. Cellular adaptation in the sensory organs is typically the result of biochemical regulation of proteins in those cells that are detecting the odor/taste or changing that odor/taste signal into a neural signal that can be transmitted to the brain. In the brain, we call the diminished response to a particular odor or taste habituation.

Which part of an acid determines sourness? Is all acid sour?

[arqdas](#)

Steven here: There seem to be two ways that acids are detected as sour. Strong acids (such as hydrochloric acid) are detected as protons (H+) that move through specialized channels found in taste cells dedicated to sour taste (what these channels are remains unclear). Weak acids such as citric acid seem to move across the taste cell membrane and change the function of potassium channels by acidification of those channel proteins themselves.

What is your experience with people born without a sense of smell? Is it possible that they may acquire the sense later in life through medical intervention the same way some do with blindness and deafness?

[SirBitchez](#)

Hey, Duncan here. This can happen - I know of someone who had an operation last year and who is smelling things for the first time. I'd say that this is the exception rather than the rule, however. The challenge is that on one hand there aren't enough clinicians with the expertise and knowledge to diagnose and treat patients - that's in a situation where something can potentially be done to help. On the other hand, there are cases where nothing can be done - when people are born without olfactory bulbs, for example.

Congenital anosmic here. It wasn't until I was about 14 that I realised I was missing something. I'm 22 now. I've never been to a doctor to actually have it officially confirmed, but as far as I can remember I've never been able to smell anything. Do you think I should see someone about it? Will they be able to identify the exact cause? What is the most common cause of congenital anosmia?

I guess I'll add that I am located in Sweden, if it is relevant. I don't know if there's any work being done here along the same lines as what you do.

[Tzalex](#)

Hi Tzalex, Duncan here. I can't really comment on your exact circumstances as I'm sure you'll appreciate. I'd say to anyone that ideally they should go and see a clinician who has some expertise in smell and taste disorders but I fully appreciate that this often isn't possible. There are various causes for congenital anosmia; faulty genes, structural problems, lack of olfactory bulb. It's difficult as there are such limited options for people to obtain reliable diagnosis.

Does an individuals' perception of flavor change over time (both long term and short term) and/or according to their level of hunger?

[motivationascending](#)

Steven here: It is unclear to me whether perception of flavors themselves change over time, but certainly flavor preferences can change. For example, I gave the example elsewhere of bitter being generally disliked by babies but often liked, and even preferred by adults. These preference changes are learned. In the case coffee or beer, they contain a number of bitter-tasting compounds that should send the message, "Poison...spit it out!" But because we often drink these beverages in social situations, we learn to like them in part because of that positive reinforcement.

My mom fell off a ladder and lost 90% of her sense of smell about 3 years ago. :(

I feel really bad when we have family meals and exchange food-type gifts, because I know she doesn't

enjoy it as much anymore.

First question - any gift ideas? (It always used to be chocolate and wine!)

Second question - how can myself and my family make sure mom has a good time to at meals and such?

[SanitaryJoshua](#)

Hello Duncan here. Really sorry to hear about what happened to your mum. I lost my sense of smell 11 years ago after a head injury so I have a lot of sympathy.

My suggestion would be to not stop getting her foodie treats but to think about other sensory elements she can still detect when you choose gifts. Texture becomes much more important if you lose your sense of smell - I hear that from so many people who this has happened to. So think about foods with contrasting textures, and also contrasting tastes as well - basic tastes like sweet and sour. You can apply that to chocolate - have you ever had chocolate with salt in it? Have a look online if not...or chocolate with nuts or other crunchy bits?

Apply the same principles to meal times - think about contrasts in texture, taste, temperature (ice cold plain yoghurt with a hot spicy casserole for example) and I'm sure she'll enjoy the food even more and also be really touched that you're thinking of her! Good luck :)

[deleted]

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Steven here: The company that marketed that product settled with the Federal Trade Commission re: charges of false advertising. While I wish it were so, there is no evidence supporting that kind of dietary aid.

I too lost my sense of smell due to a head injury. I thought I would never be able to smell again, but after 3 years I regained some of my sense of smell. Have you regained any and if not are you hopeful that one day you might?

[jiggy68](#)

Hello, Duncan here. It's been 11 years since I lost my sense of smell and some (very) slight recovery has taken place. I can occasionally out of nowhere smell something in the environment I'm in, but this happens once every few months at best. I can sometimes detect strong fragrance ingredients too. What I would say is that my ability to detect the flavour of food is better than it was 10 years ago - I'm still way down on what I was before the accident, but some improvement has taken place. Am I hopeful that things will get better? I wouldn't rule it out but at the same time I'm not expecting it to happen! What I will say is that on the rare occasions I do get a sudden whiff of something it is quite an amazing experience and I enjoy it whilst it lasts!

To anyone else reading this who has lost their sense of smell as the result of a head injury I'd say not just give up hope completely. The brain and olfactory system are able to recover after damage, but the degree of recovery is impossible to predict - it will of course depend on the severity of the damage. There are of course things that can be done to cope without smell - food and cooking being one example. Focusing on the sensory elements that you can still detect such as texture, temperature, spiciness and also any basic tastes such as sweet, sour etc. Coping mechanisms are something we'll be exploring at SmellTaste2017, the event for people affected by smell and taste disorders that Fifth Sense and UFCST are delivering in Florida on 25-26 February 2017. See smelltaste.org for more info. Be great to see you there

Alright, this is a little weird, but I really want to know. The smell of my farts vary pretty widely depending, I suppose, on what I've eaten prior. However, if I fart into a cloth, then smell the cloth, they always smell the same. Any idea as to why this is?

[batshitcrazy68](#)

No