

# TASTE blindness

by K-M. Tratt

Slightly scorched pork and beans and peanut butter. That's what coffee tastes like to Floreen Smith. She knows that's not how coffee is supposed to taste, but, for her, it's better than tasting nothing at all, which is how it was five years ago.

One wicked head cold, and Floreen Smith became one of millions of North Americans to find out the hard way that when you can't smell, you can't taste. She is taste-blind. No more mouth-watering fragrance of turkey dinners, fresh bread or apple pie for her; no aroma of cedar or whiff of lilacs.

"On Thanksgiving or Christmas, I know how things like mashed potatoes and gravy should taste," says Smith, "and I follow through with my imagination."

That tactic doesn't always work.

"My mother's cooking is quite bland," says Calgary chef and cookbook author Dee Hobsbawn-Smith. "With five kids to raise and a big, tall husband, she used to have quite an amazing repertoire of great food. I watched my mother lose her interest in food when her smell and taste went sideways, and it's really sad."

As Calgary's self-described "curious cook," much of Hobsbawn-Smith's life revolves around food. "I have a sense of smell that is highly developed, and without it there would be an emptiness, a tangible absence. Food and cooking are so rudimentary. You learn and become skilled, and if you lose the ability to smell and taste, you're reduced to just putting out fuel."

Perception of flavour comes from a combination of smell, taste, texture, temperature and what experts describe as "common chemical sense". Smell accounts for three quarters of the perception of flavour. Without it, we're left with a fairly bland outlook on things, particularly food. A lot of people who have lost their sense of smell tend to overeat, not so much to satisfy hunger as to get any satisfaction at all. They rely heavily on textural sensations and pungent ingredients: crisp vegetables, Tabasco, peppermint.

Our common chemical sense involves nerve endings in the eyes, nose, mouth and throat. These help us sense the "feel" of things like onions and menthol. Most people with no sense of smell can still detect pungent odours like ammonia.

"Chemosenses," such as smell and taste, are our molecular sensory systems. Microscopic molecules released by substances around us stimulate the olfactory nerves, located in bulbs high inside the nose and connected directly to the brain, and the sensory cells covering the nose, mouth and throat.

Our sensory cells interpret the smells and "taste" the flavours, then send a message to the brain, which proceeds to identify what it is that we are smelling or tasting. In Floreen Smith's case, it seems her brain is not getting the entire message, or it's getting a different message from the one you or I might receive.

In 22 percent of smell disorder cases, no cause is ever found. It's usually due to nasal blockage or damage to the central olfactory, or "smell" part of the nose. About a quarter of people who have smell and taste disorders have suffered some sort of upper respiratory viral infection, like Smith. When the cold is gone, so is their sense of smell.



"Olfactory dysfunction is the only one we can potentially treat because the olfactory neurons are still there and capable of functioning," says Dr. Beverly Cowart, director of the Monell-Jefferson Chemical Senses Clinic in Philadelphia. "With a viral infection, sometimes you lose your sense of smell temporarily. In some cases – particularly among people who are middle-aged and older – it fails to return."

Dr. Cowart adds that age-related smell dysfunction is more common in women than in men. Head injuries are also a common cause of smell loss, and fewer than one third of the people who suffer head trauma are likely to recover their sense of smell. Other contributing factors are exposure to environmental toxins, such as cigarette smoke and insecticides.

Once people have been reassured that their loss of smell isn't related to something serious, such as nasal polyps, tumours, or an endocrine disturbance, such as diabetes or hypothyroidism, there's nothing to do but wait and hope that flavour will return to the palate.

Smell and taste cells are the only sensory cells that are regularly replaced throughout a lifetime. That means that if you lose your sense of smell due to a viral infection, the cells will regenerate, and within about two years things will be back to normal. Well, maybe not entirely normal.

"Sometimes when I taste wine I get a feeling of disconnect," says Hobsbawn-Smith. "What I smell is not the same as what goes over my tongue. The bouquet and the mouth experience are not related. That's how it must be for my mother: to have smell and taste and not have the two correlate to make a whole experience."

Wine lovers spend years developing palates sensitive enough to be able to define what their chemosenses are telling them. For the wine connoisseur, losing the sense of smell would be the closest thing to "taste blindness".

"Smell is one of the most important senses," says Janet Webb, of J. Webb Wine Merchant. "Having no sense of smell would be like having a perpetual cold, and we all know what having a bad cold is like."

A wine taster develops a repertoire of words and expressions for what he or she is tasting, such as grass, berries, leather, even barnyard. A dictionary of words makes it easier to identify what is being tasted. Over time, as the palate matures, the dictionary becomes more defined.

"People in the wine business have very keen palates – they twig quickly to smells," says Webb, adding that her own sense of smell has improved over the years. "Smell and taste senses continue to develop."

## Are we developing those senses, or is it really something else?

"The 18 to 25 age group probably has the best sensory acuity. Then you start to lose it at 40, and by 70 your ability to smell accurately is diminished," says Dr. Wendy Wismer, assistant professor, Agricultural, Food and Nutritional Science department at the University of Alberta. "Part of the olfactory experience is to identify what an odour is, so I'd say that developing the senses is less like developing muscle strength, and more like sharpening the memory."

Working in the field of sensory and consumer science, Dr. Wismer evaluates people's taste capabilities by conducting traditional "taste tests" in researching new products. She goes to great lengths to reduce preconceived ideas and the memories people have about what they are eating.

We try to remove as much context as possible to get away from the psychological image of a brand and focus on the sensory properties," Wismer says. She adds that, though something can taste great, it can still be a marketing dud. "From a sensory perspective, a food product may be fabulous, but sensory science has no control over packaging."

The point is that a lot of what you smell and taste is in your head, which might explain why a bad experience with a certain food prevents you from eating it again, or why you choose something familiar over something new. When you aren't guided in your food experiences by smell and taste, memory and conditioning are the drivers, and texture is the vehicle.

Not only is texture the vehicle, says John Van Basler, but so are mayonnaise, mustard, barbecue sauce, tartar sauce, horseradish, gravy, salad dressing – anything that helps food slide down smoothly.

Van Basler has what's called "anosmia," or total loss of smell. He has dim memories of getting holes drilled in his nasal passages at age eight, but smell has never been more than a concept to him. With nothing to compare it to, he doesn't regard it as a big loss, and certainly not as a handicap or disability. His concerns centre more on things like gas fumes he can't detect, wearing so much aftershave that it would turn people off, and getting an upset stomach from eating things in his fridge which are no longer good to eat.

"My friends come over and smell the stuff in my fridge to let me know if my milk had gone bad," says Van Basler. "For me, eating is only about being hungry because I get no cravings," he confesses, adding that a lobster or a bottle of champagne would be lost on him. "I can't tell the difference between rum or rye – I drink them all."

When a person can't smell, all he can do about it is adjust. He can read labels, install a dozen smoke detectors and go easy on the aftershave. On the upside, to a person with this affliction, a wet, furry animal doesn't reek. On the down side, if he has had, then lost, his sense of smell, the bouquets of wine, coffee and flowers are relegated to memory, which is, after all, a big part of the food experience in the first place.

Those of us who have our sense of smell should realize that it is gradually fading and vow not to waste another minute. We should make every bite and sip count, building those memory banks, expanding that flavour dictionary. We never know when we'll need to draw on those resources. **CP**

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