IN EVERY ISSUE

A Waste of Taste

BY ELIZABETH WHITTINGTON

Taste alterations during therapy can make food unpleasant.

Whether it's a large family meal during the holidays or a comforting late-night snack, tasting and enjoying food is an important part of people's lives. Unfortunately, a large percentage of patients find their sense of taste and smell changes during cancer therapy. And although it may seem like a minor side effect, taste alterations, also called dysgeusia, can significantly impact a patient's well-being and quality of life. Patients with taste alterations may avoid certain food groups, which can lead to vitamin deficiency and a lowered immune system, or avoid food altogether, resulting in weight loss and poorer health.

"I saw in my clinic that people were having problems tasting foods and therefore not eating as much as they should and getting depressed about it," says Jennifer Garst, MD, a lung cancer specialist at Duke University Medical Center in Durham, North Carolina, who has a special interest in taste alterations. "I saw problems with taste affecting them physically, possibly affecting the outcome of treatment and quality of life."

The four types of taste—sweet, bitter, salty and sour—can be magnified, muted or distorted. For example, foods may take on a bland or metallic taste. There have also been rare instances where certain tastes have been switched, such as salty foods tasting bitter.

Radiation and certain chemotherapy agents are factors in altering taste and smell. Natasha Mirza, MD, associate professor in the department of otorhinolaryngology, head and neck surgery at the University of Pennsylvania, says there are several theories to explain taste alteration. "There is damage, especially with radiation, to tissues that are rapidly multiplying, including taste buds," Dr. Mirza says.

Those with radiation to the head and neck are particularly at risk for taste changes, which can begin several weeks after the first session. Radiation can also damage the salivary glands. With less saliva, the mouth doesn't have the ability to transfer food particles to the taste buds, which can affect overall taste.

Although less damaging than radiation, certain chemotherapy drugs cause dysgeusia in about 50 percent of patients. Researchers believe cytotoxic drugs, including cisplatin, Adriamycin® (doxorubicin), Taxol® (paclitaxel), methotrexate, Cytoxan® (cyclophosphamide) and Oncovin® (vincristine), selectively injure certain taste cells so people get an imbalance of taste in their mouth.

Taste changes can also be caused by cancer itself. “Many of the tumors secrete substances that take away people’s drive to eat and can change their taste,” says Dr. Garst.

Patients can take steps to overcome taste alterations, including staying away from favorite foods before chemotherapy sessions to prevent learned food aversions and trying different foods as their tastes change. To combat a metallic taste, experts recommend eating with plastic utensils, and because meat can sometimes have a metallic aftertaste, patients should try other protein-rich foods to fill the gap, such as nuts, peanut butter, eggs and beans. Zinc sulfate supplements may help improve taste, as well as rinsing the mouth with a mixture of salt and baking soda (half a teaspoon each) with a cup of warm water to neutralize aftertastes.

Results of a study using flavor-enhancing powders with meals to test the effect on cancer patients’ eating habits are expected later this year. Another trial will study whether Marinol® (dronabinol), a synthetic cannabinoid used to stimulate appetite, can improve food enjoyment for advanced cancer patients who have taste alterations.

Substituting chemotherapy agents may also help patients regain normal taste. Research has shown that pegylated liposomal doxorubicin, a form of Adriamycin known as Doxil®, may not have the same taste-altering effect as Adriamycin.

Very few patients have permanent taste alterations, with most finding that normal taste returns within a few weeks to a couple of months after therapy ends. Addressing taste changes is an issue patients should discuss with their doctors, because it does have an impact on overall nutrition, and consequently recurrence risk, recovery and quality of life. “Patients need nutrition to come out of therapy healthy,” says Dr. Mirza.