

### **Overview**

Head and neck cancers account for 4% of all cancers in the United States. Cancer of the head and neck can occur in the oral cavity, pharynx, larynx, nasal cavity, or salivary glands. The first line of treatment is usually surgery, which can result in issues that may make eating difficult, such as decreased ability to chew, swallow, or talk. Permanent changes to taste, saliva production, smell, and chewing or swallowing may persist even after treatment has ended. The severity of the cancer and treatment complications is dependent on the type of cancer and form of treatment required. Fortunately, most head and neck cancers are often curable, even in advanced stages.

#### **Risk Factors**

Cancer of the head and neck are more than twice as common among men as they are among women and are often diagnosed in people over the age of 50. Other risk factors include:

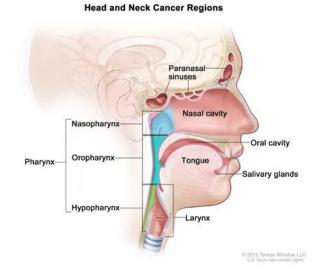
- Use of tobacco
- Alcohol consumption

- Human papillomavirus (HPV) virus
- Epstein-Barr Virus

### **Symptoms**

Symptoms of head and neck cancer depend on the affected area:

- Oral Cavity: A white or red patch on the gums, tongue, or lining of the mouth; Swelling of the jaw; Unusual bleeding or pain in the mouth
- Pharynx: Trouble breathing or speaking; Pain when swallowing; Pain in the neck or throat; Frequent headaches; Ringing in the ears; Trouble hearing
- Larynx: Pain when swallowing; Ear pain
- Nasal Cavity: Persistently blocked sinuses; Nose bleeds; Frequent headaches; Swelling around the eyes; Pain in the upper teeth
- Salivary Glands: Swelling under the chin or around the jawbone; numbness or paralysis of face muscles; Pain in the face, chin, or neck that does not go away



## **Nutrition and Head and Neck Cancer**

One of the biggest nutritional concerns for people with head and neck cancer is unintentional weight loss and malnutrition. Treatments for head and neck cancer can result in irritation and sores in the mouth, dry mouth or thickened saliva, which can result in a decreased appetite or cause discomfort while eating and prevent patient's from meeting their nutritional needs. The predominant role of nutrition therapy is to help patients maintain a healthy body weight and ensure adequate nutritional intake that can support repair, recovery, and healing. Individuals



that are able to hold their weight steady throughout the treatment process tend to have better outcomes and faster recovery times. It is important to consult a Speech and Language Pathologist if trouble chewing or swallowing foods present, to discuss what food and liquid consistency is most appropriate.

# **Tips for Managing Common Treatment Side Effects**

### **Difficulty Swallowing**

- Try bland, moist, easy to chew and swallow foods such as: bananas, applesauce, watermelon, cottage cheese, yogurt, mashed potatoes, noodles, custards, puddings, gelatin, scrambled eggs, and oatmeal.
- Cook foods so they are soft and tender, especially meat and vegetables.
- Cut food into small pieces or puree in a food processor or blender.
- Add broth, sauces, gravies, spreads, and marinades to add moisture.
- Avoid spicy, acidic, salty, or rough textured foods.
- Try very cold foods. Add ice to milk and milkshakes.
- Drink small amounts of high calorie supplements if unable to meet nutrition needs.
- Chew food well to ease swallowing.
- Maintain meticulous oral hygiene to minimize bacterial growth.
- Consult a Speech and Language Pathologist to determine the extent of swallowing difficulty.

#### **Dry Mouth**

- Eat soft, moist foods. Try adding sauce, gravies, broths, and oils to help moisten foods.
- Eat tart foods to stimulate saliva production if you don't have any open sores.
- Avoid dry, chewy, crumbly, and sticky foods as they may be more difficult to chew.
- Alternate bites of food with sips of liquids at meals.
- Sip on water or ice chips throughout the day to maintain moisture in the mouth.
- Use oil (e.g. coconut oil) to moisten your oral cavity as needed.
- Try chewing gum containing citric acid to stimulate saliva production. Products containing xylitol (e.g. lozenges, sugar-free gum) may also help.
- Use alcohol free mouthwashes (e.g. *Biotene*, *Listerine Zero*, *Tom's of Maine*, or *Crest Pro Health*) to help maintain good oral hygiene.
- Avoid caffeine, alcohol, and tobacco.
- Try using a cool mist humidifier at bedtime.
- Speak to your healthcare provider about using an artificial saliva or a mouth moisturizer.

#### **Changes in Taste and Smell**

- Try tart foods, like green apple, pickles, sauerkraut, vinegar, yogurt, lemon or BBQ sauce to brighten flavors.
- Try flavorful sauces and seasonings (e.g. garlic, onion, ginger, herbs, spices, citrus zest) with meals to provide depth of flavor
- Add fat (olive oil, butter, cheese, cream) to carry flavors and improve mouthfeel.
- If sweet foods taste too sweet, try salty, bitter or sour foods.
- If foods taste too salty, bitter, or sour, add maple syrup, honey, or fruit to calm the harsh flavors.
- Change the temperature of foods to minimize smell and "off" tastes. Hot food typically has a stronger smell and taste, try serving foods cold or at room temperature.
- Rinse mouth with water or baking soda and salt solution to "cleanse the palate".



- Avoid metal utensils, cookware, and containers if they produce a metallic taste. Try plastic utensil, chopsticks, glass, wood or non-stick kitchen ware.
- Have caregivers prepare food in a separate room from the patient to avoid off-putting smells.
- Try Miracle Berry. It makes tart foods taste sweet.
- Ask your doctor about anesthetic lozenges and sprays that can numb your mouth and throat for you to eat meals.

### **Loss of Appetite or Unintentional Weight Loss**

- Eat small, frequent meals and snacks instead of 3 large meals per day.
- Eat "by the clock" (every 2-3 hours) instead of waiting for natural hunger cues.
- Prioritize energy dense, high protein foods and save soups and salads for the end of the meal. Energy dense, high protein foods include nuts, nut butters, eggs, milk, cheese, and yogurt.
- "Fortify" foods to maximize nutrient density by adding cheese, oil, cream, sour cream, silken tofu, yogurt, avocado, or peanut butter.
- Avoid food that will cause a feeling of fullness such as carbonated beverages and fatty foods.
- Carry pre-portioned snacks and high calorie beverages to be able to eat on the go.
- Drink beverages between meals instead of with meals to prevent early fullness.
- Drink high calorie, high protein drinks such as milkshakes and commercial liquid supplements like *Ensure* or *Boost*.
- Make your meals attractive. Create a pleasant, relaxed eating environment and eliminate offensive smells.
- Increase physical activity. Exercise lightly or take a walk before meals to increase your appetite.

#### Mucositis

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- Cook foods so they are soft and tender, especially meat and vegetables.
- Cut food into small pieces or puree in a food processor or blender.
- Add broth, sauces, gravies, spreads, and marinades to add moisture.
- Avoid spicy, acidic, salty, or rough textured foods.
- Rinse mouth at least 4-6 times per day with baking soda and salt solution (don't swallow, gargle and spit out). It is important to maintain meticulous oral hygiene to minimize bacterial growth.
- Speak to your doctor about oral thrush as treatment requires medication.

For tips on managing other side effects of cancer treatments, such as nausea, vomiting, or gastrointestinal disturbances, please see our **Cancer Fact Sheet.** 

# **Diet Suggestions for Soft, Moist Foods**

Note that this is a short list. Work with a registered dietitian for more options.

Protein: Fish, well-cooked, ground or pureed meat; Well-cooked beans and peas;
Eggs; Yogurt; Tofu



- Vegetables: Well-cooked vegetables; Avoid acidic foods such as tomato or pickles if mouth is sensitive
- Fruit: Canned fruit; Bananas; Avoid acidic fruits such as citrus or strawberries if mouth is sensitive
- **Starch**: Mashed potatoes (either white or sweet); Pasta; Noodles; Cream of wheat or rice cereal; Moistened bread
- **Liquids**: To moisten food, use gravies, broth, water, milk, fruit juices, yogurt, mayonnaise, butter, or oil
- **Desserts**: Ice cream; *Jell-o*; Pudding

## **Nutrition and Lifestyle Guidelines for Cancer Survivors**

- Aim to achieve and maintain a healthy weight.
- Eat a variety of foods from the major food groups. Use Choose My Plate to guide you in creating balanced meals. www.choosemyplate.gov/
- Aim to eat at least 5 portions of non-starchy vegetables and fruits per day and try to eat whole grains or legumes (e.g. beans, lentils) with most meals.
- Limit consumption of red meats (such as beef, pork, and lamb) and processed foods.
- Avoid sugary drinks and foods with added sugar.
- If consumed at all, limit alcohol intake to 1 drink per day for women and 2 drinks per day for men.
- Don't use supplements to protect against cancer. Speak to your registered dietitian to discuss whether a supplement is necessary for you.
- Aim for at least 30 minutes of physical activity every day. Avoid a sedentary lifestyle.
- Avoid tobacco.

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