Cancerous cells in the salivary glands is called salivary cancer. The job of the salivary glands is to make and release saliva. Saliva helps with digestion of food, kills bacteria in the mouth and prevents tooth decay.

Most salivary tumors are found in the major salivary glands, which include:

- parotid glands
- submandibular glands
- sublingual glands

The minor salivary glands are tiny glands that sit around the lips, tongue, roof of the mouth, the cheeks, nose, sinuses and voice box.

Most tumors found in the salivary glands are benign (not cancerous). Testing is needed to determine if a tumor is benign or malignant (cancerous).

**What is staging and how is it performed?**

Staging is a way to find out how far the cancer has spread in your body. Your provider will have you get a few tests to figure out the stage of your cancer. These tests may include:

**Physical Exam:** This is a general exam to look at your body and to talk about past health issues.

**Imaging:** Radiology tests can look inside your body to look at the cancer and determine if it has spread. These tests can include:

- CAT scan (CT scan)
- Positron emission tomography scan (PET scan)
- Magnetic resonance imaging (MRI)

**Procedures:** Special procedures may be necessary and may include:

- **Endoscopy:** An endoscope, or a lighted tube, is used to look for any abnormal areas. If needed, the endoscope can obtain tissue for a biopsy.
- **Biopsy:** A biopsy takes cells from the tumor, or a piece of the tumor, to see if it is cancer, what type it is, and how it behaves. A doctor called a pathologist looks at the sample in a laboratory.
  - Fine needle aspiration (FNA): A small needle is used to remove tissue or cells to be tested.
  - Incisional biopsy: A piece of the tumor is removed to be tested.
  - Surgery: Surgery may be needed to remove the mass to be tested.

Benign salivary tumors cannot spread to other parts of the body and can often be removed by surgery. Cancerous salivary tumors can spread to other parts of the body through the tissue, and lymph and blood systems. Because of this, it is important to “stage” a cancerous tumor to know it’s size, if/where it has spread, and how aggressive it is.

Salivary cancer is both graded and staged. It is described in grades numbered 1 to 3. Grade 1 cancers are often slow growing cancers. Grade 3 cancers grow more rapidly. The stages of salivary cancer range from stage 1 through stage 4.

There are a number of different types of salivary cancer. Mucoepidermoid is the most common. The type of salivary cancer is important to determine, as each type acts differently. A biopsy would be used to determine the type. The result of that biopsy is
Surgery for the Treatment of Salivary Tumors

Often times, it may be recommended that people with salivary cancer undergo surgery. The surgical procedure recommended will depend on several factors, including the size and location of the cancer. Your surgeon will discuss with you in detail the recommended procedure based on your unique situation.

Common surgical procedures to treat salivary cancers include:

- **Superficial parotidectomy**: removal of the superficial (outer part) of the parotid gland. This is done by the surgeon making a cut in front of the ear and down the neck. This does not often affect how the face moves, because it attempts to not harm the facial nerve.
- **Total parotidectomy**: removal of the entire parotid gland. This is done by the surgeon making a cut in front of the ear and down the neck. The facial nerve, as well as other tissues, may need to be removed depending on where the tumor is. This could affect how your face is able to move.
- **Submandibular sialadenectomy**: the whole submandibular gland is removed through a small cut made below the lower jaw.
- **Sublingual gland surgery**: removal of the whole sublingual gland and, in some cases, tissue and bone are removed through a mouth or facial/neck incision. Nerves that control tongue and face movement, sensation and taste may be affected.
- **Minor salivary gland surgery**: this surgery is done to remove cancer from minor salivary glands. These glands can be found in the lips, tongue, palate (roof of mouth), mouth, throat, voice box (larynx), nose and sinuses. Some tissue may also be removed.
- **Lymphadenectomy**: removal of lymph nodes from the neck. May be called a neck dissection. May require removal of connective tissue, muscles, nerves and blood vessels through a large cut in the neck.

**What are the risks associated with surgery to treat salivary cancer?**

As with any surgery, there are risks and possible side effects. These can be:

- Reaction to anesthesia (Anesthesia is the medication you are given to help you sleep through the surgery, not remember it and manage pain. Reactions can include wheezing, rash, swelling and low blood pressure.)
- Bleeding
- Blood clots
- Infection
- Facial nerve damage. This can lead to facial muscle loss, facial droop, issues with tongue movement, problems with speech or swallowing, arm weakness and/or weakness in the lower lip.
- Frey syndrome (A condition caused by facial nerve damage. It causes facial flushing and sweating when eating a meal, or even thinking, dreaming or talking about eating.)
- Loss of feeling in the ear
- Dry eye
- Salivary fistula (an abnormal opening in the skin that saliva might leak through.)
- A change in your physical appearance

Before surgery, your surgeon will talk to you about any other risks based on your health and the specific surgery you are having.

**What is recovery like?**

Recovery and hospital stay from surgery to treat salivary gland cancer will depend on the extent and type of the procedure you have had.
You will be told how to care for your surgical incisions and will be given any other instructions before leaving the hospital.

Your medical team will discuss with you the medications you will be taking, such as those for pain, blood clot, infection, and constipation prevention and/or other conditions.

Your provider will talk to you about activity restrictions, which will depend on the surgery you had. Often, it is recommended that you:

- Take prescribed medications as directed
- Eat a bland diet, avoiding sour, tart or spicy foods
- Treat constipation as needed to reduce straining when having a bowel movement
- Sleep with your head elevated above your heart
- Talk to your healthcare team about when you should resume your pre-operative medications, specifically medications that can affect blood clotting like blood thinners, aspirin and non-steroidal anti-inflammatory medications (i.e. ibuprofen, naprosen).
- Avoid drinking alcohol
- You should not smoke. Smoking will lessen the blood flow to the surgical wound. If the wound does not have enough blood flow, it will not heal.
- No lifting anything over 10 pounds
- No bending, stooping or lifting objects, or exercise until instructed that it is okay to do so
- No air travel for 2 weeks post-op
- Perform incisional care and showering as directed. Do not submerge the surgical incision
- Thermometer to monitor for fever, which can be a sign of infection.
- Wound and drain care supplies if needed.

**What will I need at home?**

- Thermometer to monitor for fever, which can be a sign of infection.
- Wound and drain care supplies if needed.

**When to call your doctor**

Your provider should give you instructions about when to call the office. It is often suggested you call the office if you have:

- Redness, swelling and/or drainage at the incision
- Any other questions or concerns

**How can I care for myself?**

You may need a family member or friend to help you with your daily tasks until you are feeling better. It may take some time before your team tells you that it is ok to go back to your normal activity.

Be sure to take your prescribed medications as directed to prevent pain, infection and/or constipation. Call your team with any new or worsening symptoms.

There are ways to manage constipation after your surgery. You can change your diet, drink more fluids, and take over-the-counter medications. Talk with your care team before taking any medications for constipation.

Taking deep breaths and resting can help manage pain, keep your lungs healthy after anesthesia, and promote good drainage of lymphatic fluid. Try to do deep breathing and relaxation exercises a few times a day in the first week, or when you notice you are extra tense.

- Example of a relaxation exercise: While sitting, close your eyes and take 5-10 slow deep breaths. Relax your muscles. Slowly roll your head and shoulders.
This article contains general information. Please be sure to talk to your care team about your specific plan and recovery.

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