

Head and Neck Masses

A number of masses may develop in the head and neck, and these may also be called growths, tumors, lumps, and bumps. While some head and neck masses are cancerous, many are not; it is important to see a physician if any abnormal bump or structure persists for more than two weeks. If a cancer is present, earlier detection provides the highest chance of successful treatment.

What Causes Head and Neck Masses?

There are numerous causes of head and neck masses.

Enlargement of lymph nodes – this is the most common cause of new neck masses. Lymph nodes, which are part of the immune system, can enlarge when the body rallies to fight an infection. When the infection recedes, lymph swelling subsides as well.

Benign lesions – Benign masses do not spread (metastasize) to surrounding tissue and are not cancerous. Nevertheless, benign masses can be serious if they impact nerves or exert pressure in the head and neck, and are often removed surgically. These include cysts, thyroid masses, vascular masses, salivary gland masses, and others.

Cancers – Head and neck masses are malignant, or cancerous, if they spread to surrounding tissue. In the head and neck, tumors may be either primary or secondary.

Primary tumors originate in the head or neck itself, including the thyroid, throat, larynx, salivary gland, brain, or other locations. Primary tumors of the head and neck typically spread to the lymph nodes in the neck. About 90% of head and neck cancers are caused by tobacco and alcohol use, and the deaths from these cancers are largely preventable. Cancers of the mouth and throat are nearly nonexistent in adults who do not smoke or drink. People who have been exposed to radiation, either during medical treatments as children (common in decades past) or from nuclear radiation sources, are at considerable risk for thyroid cancer and should be screened yearly.

Secondary cancers are tumors that have spread from primary tumors in other parts of the body to the head or neck. Most often, secondary tumors of the neck originate in the lung, breast, kidney, or from melanomas in the skin. Cancers in the nasal and sinus passages may spread to the brain through nerves in the skull.

Symptoms Associated with Neck Lumps

You should see your physician if you experience any of the following symptoms:

- Lump in the neck persisting for more than two weeks, especially if it is not associated with a cold, flu, or other infection. Cancers of the mouth, throat, voice box (larynx), thyroid, and some lymphomas (blood cancers) can appear first as a painless, growing neck lump.
- Change in your voice including hoarseness that persists more than two weeks
- Growth in the mouth
- Swollen tongue
- Blood in the saliva or phlegm
- Swallowing problems
- Changes in the skin – it is important to have a dermatologist, plastic surgeon, or otolaryngologist examine changes in the skin that could indicate basal cell carcinoma, squamous cell cancer, and malignant melanoma. Skin cancers are associated with prolonged exposure to the sun; most squamous cell cancers occur on the lower lip or ear.
- Persistent Ear Pain or ear pain while swallowing -- may be a symptom of infection or a growth in the throat

Diagnosing Head and Neck Masses

Examination of some masses may allow a physician to determine their cause based on location, size, and consistency. In other cases, however, additional tests may be required, such as:

- **Neurological exam** – includes evaluation of eye movements, hearing, sensation, muscular movement, sense of smell, balance and coordination
- **MRI** – Magnetic Resonance Imaging can clearly show tumors near bones, smaller tumors, and brainstem masses. It uses a magnetic field rather than x-rays (radiation).
- **CT Scan** – Computed tomography combines a sophisticated x-ray with computer technology. It is less accurate than MRI but can help locate tumors or determine their types, detect swelling or bleeding, and evaluate the effects of treatments. Injections of iodine dye (contrast material) may be used to enhance the visibility of abnormal tissue during CT scans.
- **PET** (Positron Emission Tomography) and **SPECT** (Single Photon Emission Tomography) are useful both prior and after diagnosis to help determine the grade of a tumor or to distinguish between cancerous, infectious, dead and scar tissue. They involve injection with a radioactive tracer.
- **Biopsy** – A sample of tissue is taken and examined under a microscope to determine if it is malignant.

Treating Head and Neck Masses

Treatments are determined by the cause of the mass. Benign neck cysts and masses are usually removed by surgical excision. Head and neck cancers may be treated by some combination of radiation therapy, chemotherapy, and surgery, depending on their nature.