

Parotid Glands

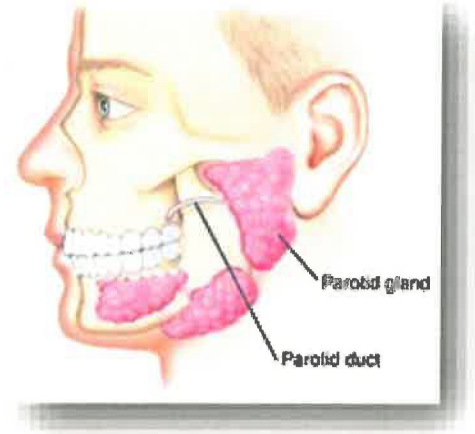
The parotid glands are paired salivary glands located on either cheek, just in front and below the ear. They are the largest of the major salivary glands. They secrete saliva through a duct which opens inside the cheek just across from the 2nd upper molar tooth.

Why is parotid surgery performed?

Most commonly, parotid surgery is performed for tumors that occur within the gland. The majority (>80%) of tumors that involve the parotid gland are benign (non-cancerous). Two of the most common benign tumors of the parotid gland are:

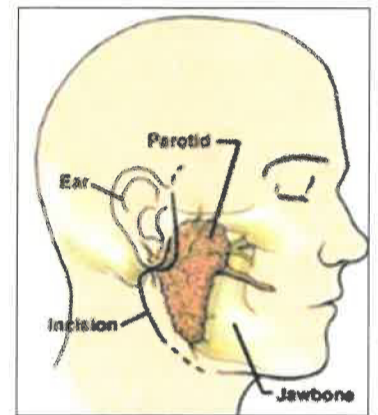
- ◆ **Pleiomorphic adenoma:** This is the most common benign salivary gland tumor. They tend to occur on just one side, and are slow-growing. However, if left untreated, there is potential risk (although low) for them to develop into a cancer, and thus surgery is generally advised
- ◆ **Warthin's tumor:** This benign tumor, although found very commonly in smokers, has no cancerous potential. They can occur in both parotid glands in about 10% of patients. Surgery is generally advised if they cause symptoms such as pain when chewing or if the mass continues to grow and become bothersome by its presence.

Although less common, malignant (cancerous) tumors of the parotid gland can also arise. Surgery is generally indicated for these lesions, and some patients will also require post-operative treatment including radiation therapy and chemotherapy. Some patients with a history of skin cancer involving the scalp, temporal area, or face can present with a metastasis to the parotid gland, even many years after the skin cancer has been removed. Other conditions that often require surgery of the parotid gland include chronic inflammatory conditions or obstruction of the parotid duct due to a stone, when more conservative measures have failed. Prior to considering surgery, your doctor may wish to obtain imaging studies, usually a CT scan or MRI. You may also undergo a fine needle aspiration biopsy (FNA) of the mass because the results of this may influence your treatment plan. This is usually performed in the office or under image guidance under local anesthesia, and the amount of discomfort is minimal.



How is parotid surgery performed?

The operation is performed by making an incision on the side of the face just in front of the ear and down just below the jaw line. The surgery is done under general anesthesia. Surgery can be performed in an outpatient setting or sometimes patients are kept overnight in the hospital, usually if they have other health problems.



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The main concern during surgery is identification and preservation of the facial nerve, which is the nerve that supplies the muscles of facial expression on either side of your face. Your surgeon will not only identify the nerve and its branches visually but will also use a nerve monitor that uses electrodes placed in the muscles of your face at the time of surgery to help identify and preserve the nerve and its branches.

Most tumors of the parotid gland are located on top of the nerve and thus only this portion of the gland is removed (**superficial parotidectomy**). If the tumor involves a portion of the gland under the facial nerve or any of its branches, a **total parotidectomy** is performed. Once the tumor and the necessary portions of the gland are removed, a drain is placed which usually stays in 1-3 days and the incision is closed.

What are some of the risks and complications of parotid surgery?

Surgery is generally safe, but complications can arise. Immediate complications of surgery include pain, bleeding, numbness of the skin of the face and ear lobe, and temporary facial weakness. If significant bleeding occurs in the immediate post-operative period, you may be required to return to surgery to identify the source of the bleeding and control it.

Late complications include persistent facial weakness. This is more common if the tumor was involving the facial nerve branches, cancerous tumors, or tumors that require a deep lobe dissection under the nerve. A salivary fistula or collection of saliva (**sialocele**) can also occur due to overactivity of the remaining portion of the gland. This usually

subsides over a period of weeks and can usually be managed in the office. Another late complication is facial sweating or flushing that occurs during mealtimes (**Frey's syndrome**). If this is bothersome, topical antiperspirants can be used and if the symptom persists, your doctor may recommend some other forms of treatment.