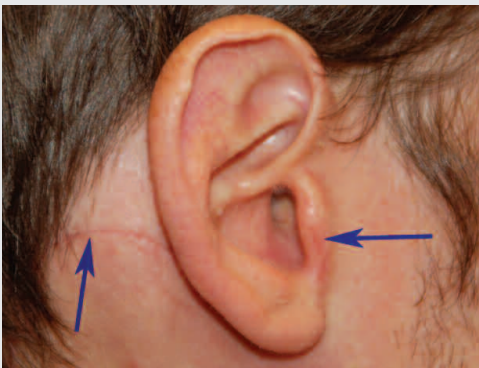




PAROTID SURGERY & FACIAL PARALYSIS TREATMENT

Parotid Tumors

More than 80% of parotid tumors are benign. Yet they are not harmless. The intricate anatomy of the facial nerve as it courses through the parotid gland and the intimate relationship of tumors with the nerve makes surgical resection difficult and risky. One may surmise removal of a benign tumor in view of the risk to the facial nerve is unnecessary. But there are two clear reasons for surgery: **1. There is a 10% chance of malignant transformation of these tumors to an extremely aggressive cancer. 2. The growth of the benign tumor is inevitable until it becomes apparent and disfiguring, along with further entanglement with the facial nerve.**



3 weeks post op

parotidectomy has undergone an evolution as well. The traditional incision extended from the pre-auricular area down into the neck (red line) has been modified to extend along the hairline behind the ear (blue arrow). This not only hides the incision well, but also allows better access to the

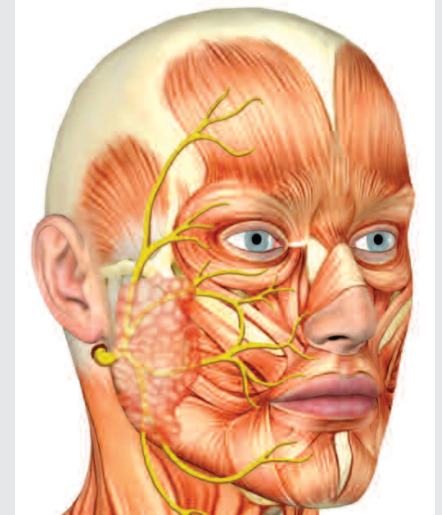
The risk of facial nerve paralysis is much less with the use of intra-operative EMG facial nerve monitoring. This is by no means a substitute for expertise in facial nerve anatomy and surgical skill, but rather an additional measure. In expert hands the incidence of facial paralysis is less than 1%.

The incision for

(Continued)

Facial Paralysis

Bell's Palsy is the most dangerous diagnosis in otolaryngology. Ever since its discovery by Sir Charles Bell, the term Bell's Palsy has been used to describe a majority of cases of facial paralysis. Whereas it is true that Bell's palsy is the most common cause of facial paralysis, it is clearly not the only reason. Yet many physicians remain content with this diagnosis without ruling out other, often very easily treatable or more dangerous causes. Some of the more common causes are listed in the table on the next page.



Recent research has shown that Bell's palsy occurs when a virus (herpes simplex virus, HSV) gets reactivated in the bone behind the ear (temporal bone.) When the virus gets reactivated the nerve becomes swollen, which ends up causing the nerve to essentially strangulate itself in its bony canal in the temporal bone. This occurs in a very rapid manner and most patients who have Bell's Palsy have an acute onset and immediate facial paralysis. Other symptoms of Bell's Palsy may include an aura that precedes it, taste alteration, facial pain, and sounds becoming too loud or painful. Treatment includes the use of Prednisone starting at 60 mg/day and tapering over 2-3 weeks. In addition antivirals such as **Valtrex or Famvir** should be used for one week, and **NOT Acyclovir**. Steps need to be taken to protect the eyes against dryness and corneal damage. If facial paralysis does not show signs of significant improvement in **3 weeks** or in fact progresses, then you are obligated to further investigate this problem and order an imaging study (Brain MRI, or at times Temporal Bone CT Scan).

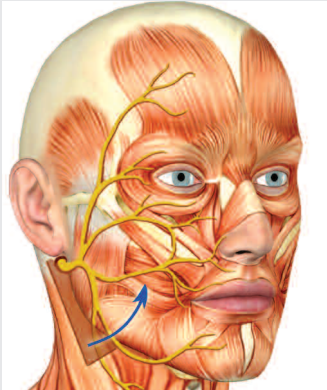
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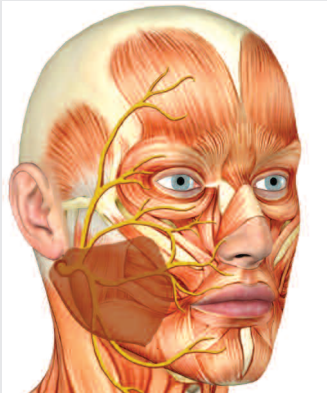
PAROTID SURGERY & FACIAL PARALYSIS TREATMENT

Parotid Tumors *(Continued)*

sternocleidomastoid (SCM) muscle for reconstruction of facial defect as a result of removal of the parotid gland. The surgery is most often done in collaboration with a reconstructive surgeon for best results (images below).



The treatment of malignant tumors is more involved and dependent on the type. ***In most cases, when the face is not paralyzed prior to treatment, then the facial nerve is not sacrificed.*** Post-operative radiation therapy is often used. The parotid gland holds within it several lymph nodes; these nodes serve as the first nodal basin for the skin of the upper-lateral face, ear, temple and scalp. Skin cancers in these areas that have deeper penetration require clearance of the nodal basin either surgically or with radiation therapy.



Certain tumors have an affinity for nerves. Adenoid cystic carcinoma usually tracks along nerves, and it is not uncommon for the tumor to track all the way up into the temporal bone or the skullbase. In these cases the nerve does have to be sacrificed.

Treatment of cancers of the salivary glands, specifically parotid gland, is complex. Reconstructive measures should be considered and planned in advance. Patients are best served by this collaborative plan. An oncologic resection combined with a reconstruction that preserves facial symmetry and gives maximal facial nerve function is a very important part of the patient's treatment plan. We often face patients who have undergone successful surgical treatment of a cancer but have not been reconstructed; I cannot emphasize the morbidity of facial paralysis and its deep impact.

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Facial Paralysis *(Continued)*

Facial paralysis is a very devastating impairment, not only in terms of movement and appearance, but also because it deeply impacts our ability to communicate via our facial expressions (even in this era of Botox, facial expressions are valuable). There are a variety of treatment options including: nerve repair, hypoglossal-facial nerve transfer, crossfacial nerve graft,

Infectious	Bell's Palsy
	Parotitis
	Ear/Mastoid
Traumatic	Temporal Bone Fracture
	Iatrogenic Parotid Surgery
Neoplastic	Acoustic Neuroma
	Parotid Tumors
Metabolic	Diabetes
	Pregnancy

gracilis free flap (pictures below), static suspension, temporalis muscle transfer, and yes, Botox to create symmetry, etc., etc., etc. Each patient must be individually assessed to develop an optimal plan. Time is of the essence, because after one year of being paralyzed the muscles of the face atrophy; if reconstruction is undertaken during the first year it would be possible to achieve a certain degree of movement as opposed to a static reconstruction.

