

Complications of Surgery

Rhinoplasty, Septoplasty, and Turbinate Reduction

1. **Nasal obstruction** due to failure to straighten the septum or later re-deviation of the septum, or the re-growth or swelling of the turbinates. This may necessitate revision surgery.
2. **Failure to resolve sinusitis** and or nasal polyps with need for further or more aggressive surgery.
3. **Bleeding.** In rare situations, a need for blood products or a blood transfusion.
4. **Chronic nasal drainage or excessive dryness** or crusting of the nose or sinuses
5. **Failure to resolve headaches.** The exact cause of headaches can be difficult to determine and have many causes that are not due to nasal septum or turbinates. Patients may require consultation with another specialist such as a neurologist.
6. **Damage to the eye** is, thankfully, extremely rare but can occur.
7. Permanent **numbness of the upper teeth**, palate, or face.
8. **Prolonged pain**, impaired healing, and the need for hospitalization.
9. **Septal perforation**, which is a hole inside the nose (septum) that produces an open connection between the right and left sides of the nose.
10. **Failure to restore or worsening of the sense of smell or taste**, or failure to relieve nosebleeds.
11. **Worsening the shape of the nose leading to a poor cosmetic outcome** as well as a poor functional outcome where you have reduced ability to breathe well through the nose and functions of smell and taste are altered. In cases of rhinoplasty, care is taken to preserve as much nasal bone and cartilage as possible to avoid collapse and deformity of the nose. However, this cannot be guaranteed to work and severe nasal deformity may occur.

Sinus Surgery

1. **Failure to cure.** Like any operation, there is a chance the the goal will not be met and that you will continue to suffer from **sinus infections** or recurrence of sinus problems and/or polyps. There may be need for more aggressive surgery in the future.
2. **Bleeding.** In very rare situations, a need for blood products or a blood transfusion may be required. Even more rare is blood loss severe enough to cause death.
3. **Chronic nasal drainage or excessive dryness** or crusting of the nose.
4. **Failure to resolve headache.** The exact cause of headaches can be difficult to determine and may have many different causes that are not sinus-related.
5. **Damage to the eye** and its associated structures. Since sinus surgery takes place close to the eye socket, accidental entry into the eye causing loss of vision and double vision have been reported.
6. **Damage to the skull base.** Since the roof of the nose and sinuses is the floor of the brain, accidental penetration into the cranial cavity can lead to meningitis, brain abscess, or leakage of spinal fluid. This can lead to a recommendation for more aggressive surgery to correct the defect.
7. **Permanent numbness** of the upper teeth, palate, or face.
8. **Nasal obstruction** due to failure to control infection or polyps.
9. **Prolonged pain**, impaired healing, and the need for hospitalization.
10. **Death** from severe blood loss, reaction to anesthesia, or meningitis as described above.

Tonsillectomy

- 1) **Anesthesia.** There is always a risk of a reaction to the anesthesia given, loss of airway, damage to teeth and the vocal cords, and possibly death.
- 2) **Bleeding.** Approximately one in fifty people undergoing tonsillectomy bleed. Bleeding can occur any time up to 3 weeks after the operation. It can be mild (requiring a trip to the ER with just observation), moderate (requiring a trip back to the operating room to stop the bleeding), or severe (requiring blood transfusion or causing death).
- 3) **Pain.** Tonsillectomy can be very painful for up to three weeks after surgery. Dehydration can result if not enough food and liquid is consumed due to pain.
- 4) **Change in Taste.** This can occur to varying degrees after the tonsils are removed. It may be temporary or permanent.
- 5) **Damage to Teeth.** This can include chipped teeth or loosening of teeth at the roots. This occurs because metallic instruments are inserted into the mouth to keep it open during surgery.
- 6) **Burning of the Lips.** This can occur as the tonsils are removed using electrocautery. Although rare, severe deforming burns of the lips and mouth can occur.
- 7) **Death.** This is thankfully a very rare complication of tonsillectomy and can occur due to reaction to anesthesia or severe blood loss.

Adenoidectomy

- 1) **Bleeding.** Although very rare, bleeding can still occur and be life threatening if not treated promptly.
- 2) **Nasal Reflux or VPI.** Either temporary or permanent difficulty with food and or liquid escaping into the nose during swallowing.
- 3) **Foul Nasal Odor.** Usually a temporary complication from adenoid cautery.
- 4) **Damage to Teeth.** This can include chipped teeth or loosening of teeth at the roots. This occurs because metallic instruments are inserted into the mouth to keep it open during surgery. 5) **Burning of the Lips** - This can occur if the adenoids are removed using electrocautery. Although rare, severe deforming burns of the lips and mouth can occur.
- 6) **Death** - This is thankfully a very rare complication of adenoidectomy and can occur due to reaction to anesthesia or severe blood loss.

Parathyroidectomy

1. **Bleeding.** This can be mild (causing minor swelling), moderate (causing an expanding hematoma and shortness of breath that requires a return trip to the operating room), or severe (causing rapid blockage of the airway and loss of blood leading to death). Fortunately, this is a rare occurrence.
2. **Airway obstruction** caused by bleeding or damage to the voice box or trachea. In rare cases, both vocal cords can become paralyzed making it necessary to perform a tracheotomy (inserting a breathing tube through the neck) so that you can breathe comfortably.
3. **Permanent hoarse or weak voice** due to nerve damage.
4. **Low calcium levels.** Damage to all four small parathyroid glands can lead to hypoparathyroidism, resulting in abnormally low calcium levels in your blood and bones and an increased amount of phosphorus in your blood. This is usually temporary but can be permanent and require lifelong calcium supplementation.

Thyroidectomy

1. **Bleeding.** This can be mild (causing minor swelling), moderate (causing an expanding hematoma and shortness of breath that requires a return trip to the operating room), or severe (causing rapid blockage of the airway and loss of blood leading to death). Fortunately, this is a rare occurrence.
2. **Airway obstruction** caused by bleeding or damage to the voice box or trachea. In rare cases, both vocal cords can become paralyzed making it necessary to perform a tracheotomy (inserting a breathing tube through the neck) so that you can breathe comfortably.
3. **Permanent hoarse or weak voice** due to nerve damage.
4. **Low calcium levels.** Damage to the four small glands located behind your thyroid (parathyroid glands), can lead to hypoparathyroidism, resulting in abnormally low calcium levels in your blood and bones and an increased amount of phosphorus in your blood. This is usually temporary but can be permanent and require lifelong calcium supplementation.

Parotidectomy

1. **Facial paralysis.** This is the most feared complication of parotid surgery and can be either temporary or permanent. While temporary weakness of the face is common, complete permanent facial paralysis is more rare. In rare cases, a condition called **facial synkinesis** develops after paralysis improves. In these cases, there are abnormal contractions of the facial muscles.
2. **Blood loss and hematoma.** Rapid loss of blood can occur during surgery leading to a need for blood transfusion and or causing death. A slower forming blood clot may lead to pain and death of the skin near the incision line. There may be a need to go back to the operating room to control the bleeding.
3. **Incomplete tumor resection.** The operation may fail in removing small tumors. This is especially true for smaller tumors and masses. Also, if the tumor is very large or if there are several tumors, some abnormal tissue may be left behind. It is important to keep follow up appointments after surgery so that if this occurs, it can be caught early.
4. **Numbness of the skin of the neck and earlobe.** Numbness of the skin of the neck is usually temporary but can be permanent. Numbness of the earlobe is usually permanent and occurs frequently.
5. **Frey's syndrome** is a condition where every time one eats or has an impulse to salivate, the skin of the face produces excessive sweat. This is common after parotid surgery but, in many cases, people don't notice it as it is mild. More severe cases may require treatment.
6. **Skin necrosis** is a condition where a section of the skin near the incision dies. It will require surgery to remove and will lead to a large scar.
7. **Facial contour deformity** and cosmetic deformity occur to varying degrees. The face will be asymmetric due to loss of parotid tissue. There may be severe deformity and scarring.
8. **Salivary fistula** is a condition where saliva leaks from residual parotid tissue through a hole in the skin. This usually resolves over time but may be very uncomfortable and require repeat operation.
9. **Failure** to cure disease.
10. **Death** from blood loss, reaction to anesthesia, or spread of malignant disease.
11. **Chronic and severe pain** in the head and neck due to sensory nerve damage.

Tympanostomy (Ear Tube Surgery)

1. **Hole in the Eardrum** - This can be temporary or permanent. If permanent, more aggressive revision surgery may be necessary to close the hole.
2. **Cholesteatoma** - This is a rare problem that involves a large sac of skin debris filling the middle ear space and potentially damaging the middle ear bones. It requires aggressive surgery to correct.
3. **Massive Bleeding** - This is a rare complication that can occur if there is a congenital dehiscence of the jugular bulb (jugular vein) that is accidentally cut.
4. **Hearing Loss and Vertigo** - Rarely, worsening of hearing and dizziness can occur if the middle ear structures are damaged.
5. **Drainage** - This is a common problem after ear tube surgery. There can be continuous drainage of fluid from the ears. While this usually responds to antibiotics, it may require removal of the tubes to cure.