

Ear, Nose, and Throat

Ear

To accommodate for pressure changes experienced during air travel, the passageways for the external and middle ear must be fully patent to allow pressure equalization primarily with descent but also with ascent. The middle ear space can trap gas, which can create pain, bleeding, discharge, or dizziness. Severe cases can cause tympanic membrane rupture or middle ear bleeding. Active conditions such as middle ear infections, effusions, recent procedures (tympanoplasty, mastoidectomy, stapedectomy, endolymphatic shunt, labyrinthectomy, acoustic neuroma removal, nerve section via middle cranial fossa, or other otologic surgery) are contraindications to flight until released by an otolaryngologist.

Some procedures such as ear tube placement or simple myringotomy help ventilate the middle ear and, therefore, are not contraindications to flight as long as no active discharge or obstruction is present.

The key to preventing blockage, hearing loss, tinnitus, pain, tympanic membrane rupture, or dizziness is to equalize the pressure. This is best accomplished in adults with frequent swallowing, chewing or a gentle Valsalva maneuver (holding the nose and generating pressure against a closed mouth and glottis every 30 seconds until the ears pop). In children, keeping them awake, upright bottle-feeding, pacifier use, eating, or crying all help eustachian tube function. If travel cannot be postponed, then antibiotics, decongestants or even temporary laser office myringotomy may be indicated.

The external auditory canal, if obstructed by nonventilated earplugs, severe cerumen impactions or ear infections, can be painful. This is best prevented by loosening earplugs and sometimes hearing aids and treating external auditory canal wax impactions or ear infections (swimmer's ear) preflight.

Dizziness sometimes occurs during descent following an aggressive Valsalva maneuver. This can be prevented by performing the maneuver gently or by avoiding flying if unable to clear (pop) the ears on the ground due to eustachian tube dysfunction.

Patients with hearing aids are often frustrated by decreased ability to hear in flight due to background noise in the cabin. They should be reassured and advised to turn their hearing aid down, because volume increase merely reduces discrimination.

Nose and Sinuses

Acute or chronic sinusitis, large polyps, recent nasal surgery, recurrent epistaxis and significant upper respiratory tract infections are contraindications to flying because of the risk of obstruction to sinus ostia and prevention of pressure equalization. Flying with these conditions can lead to severe headache, facial pain, orbital or central nervous system (CNS) sinus disease extension, or bleeding. Sometimes broad-spectrum antibiotic therapy, mucolytic agents, oral decongestants, steroids, and temporary use of nasal decongestant spray such as oxymetazoline may shrink the nasal mucosa adequately to provide temporary sinus ventilation and drainage. Nasal saline spray also helps with nasal drying and epistaxis due to low humidity. After landing, any patient with persistent sinus block that has not resolved with decongestant therapy or spray, or whose symptoms worsen within 24-48 hours, should see a physician.

Nasal allergy can lead to congestion and obstruction impeding air flow and equalization of pressure. This is best prevented by preflight treatment with antihistamines, topical nasal steroids and, in some cases, immunotherapy.

Throat

Patients who have longstanding tracheotomy, laryngectomy, vocal cord paralysis or other laryngeal dysfunction may need extra moisturization and possibly removal of thickened secretions due to lower humidity inflight. To avoid this problem, extra oral hydration, moisture generator, and suctioning may be considered by the physician.

Following tonsillectomy and adenoidectomy, palatoplasty, or nasal or facial fracture repair, patients can fly once postoperative bleeding risk has passed, after about 2 weeks in most cases, and after clearance by an otolaryngologist.

Patients who have undergone facial plastic surgical procedures such as facelift, blepharoplasty, otoplasty, peels, rhinoplasty, implants, or dermabrasion can fly once drains are removed and they are cleared by their surgeon (usually within 1-2 weeks).