

## 6.0 EAR NOSE AND THROAT

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## 6.1 ALLERGIC/VASOMOTOR RHINITIS

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**AEROMEDICAL CONCERNS:** Allergic Rhinitis resulting in mucosal inflammation can lead to nasal congestion, impairment of paranasal sinus ventilation, and Eustachian tube dysfunction. These can, in turn, lead to sinus/facial pressure and discomfort, ear and/or sinus barotrauma, along with the potential use of medications with unacceptable side effects, all of which have the potential for in-flight incapacitation and prolonged periods of grounding.

**WAIVER:** *Uncomplicated* perennial and seasonal allergic rhinitis [PAR and SAR] are **NCD!** *Vasomotor* rhinitis (VR) may be CD if symptoms interfere with aviation, although this is a rare occurrence. For more information on VR, see the Discussion section below. In evaluating a member with a history of allergic rhinitis, the following conditions must **all** apply before determining that the member is PQ:

1. Symptoms, if present or expected to recur, must be controllable with any combination of topical nasal steroid sprays, approved antihistamines, montelukast (Singulair), nasal cromolyn, or the topical antihistamine, azelastine (Astelin).
2. A Waters' view x-ray of the sinuses must show no evidence of acute or chronic mucosal disease (mucus retention cysts are the exception and are NCD). See Manual of the Medical Department, Chapter 15, section 15-84.
3. A nasal examination using a hand-held magnifying otoscope with large speculum must show no evidence of mucosal disease such as polyp(s) or purulent drainage. If in doubt, seek ENT consultation. Your nasal examination is best done several minutes after spraying both nasal cavities with a decongestant nasal spray.
4. There has been no use of allergy immunotherapy (AIT) within the past 12 months. (The active use of immunotherapy requires a waiver. However, if an individual has completed immunotherapy and it has been 12 months since the last dose of immunotherapy, he/she may request that the waiver be lifted/removed.)
  - a. If an applicant has used immunotherapy in the past, but it has been more than 12 months since their last dose, a waiver is not required as long as all the other conditions listed above are met.

***(Note: AR and SAR do not automatically become CD if the only additional treatment is an antihistamine and/or nasal steroid. It is the severity of the condition that requires the waiver, not the medication. See more in the TREATMENT section below)***

### INFORMATION REQUIRED:

1. Documentation of diagnosis on DD 2807/2808
2. Nasal speculum exam
3. Waters' view x-ray (only x-ray report needs to be submitted, not actual films)
4. [Allergic Rhinitis Worksheet](#)

If the conditions outlined above aren't met, then the allergic rhinitis is presumably more complicated and the member is NPQ. Depending on the reason for disqualification, a waiver may or may not be considered. In these cases, the following information is also required for waiver consideration:

1. ENT and/or Allergy consultation
2. Results of any further tests that have been performed, such as sinus CT

Vasomotor rhinitis, which causes significant disability, will require the same documentation as for allergic rhinitis. The [Allergic Rhinitis Worksheet](#) (see below) is helpful in assuring that all useful information is collected for submission and need for waiver review.

**TREATMENT:** The non-sedating antihistamines (Claritin, Clarinex, and Allegra), one topical second-generation antihistamine (azelastine-Astelin-topical nasal spray) and the leukotriene receptor antagonist montelukast (Singulair) are approved for use in all aviation personnel, **with no waiver required providing the above conditions are met.** If the Flight Surgeon chooses to start a member on one of these medications, a seven-day grounding period is mandatory in order to observe for any untoward effects. This period does not need to be repeated with subsequent use of that drug. However, if the member switches to another antihistamine, another grounding period is then necessary as two of the three approved medications are chemically dissimilar from the third. Note **that only the plain forms of these antihistamines are approved and not the ones containing decongestants.** Singulair is not generally considered first line therapy. It is generally used as a medication that provides benefit in conjunction with topical nasal steroids or antihistamines. Topical nasal steroids and cromolyn do not require a waiver and do not require a 7 day period of observation, although it may take that long for the patient to notice a benefit of the medication.

Allergy immune therapy (AIT) in stable, (maintenance) effective doses is CD but will be considered for waiver. AIT can be delivered using subcutaneous injections-subcutaneous immunotherapy (SCIT), or by sublingual instillation in the form of drops or tablets-sublingual immunotherapy (SLIT). SCIT can be challenging to administer (12 hour grounding after shot, refrigeration of allergen solutions required, loss of serum potency, potential for anaphylaxis necessitating a 30 minute period of observation following administration and difficulty obtaining refills) and should not be undertaken if topical sprays or non-sedating antihistamines are effective. SLIT is not as widely available as the more traditional SCIT, and requires daily administration (sometimes 3 times a day), but the SLIT formulations of allergens are stable at room temperature and do not require refrigeration. There is also virtually no risk of anaphylaxis with SLIT. For this reason there is no requirement to observe the individual in the clinic following administration of the allergen.

All forms of AIT require a variable period of time to work up to appropriate dosages of the allergen(s) being administered. During this phase of treatment, the individual will be in a down status. Once the individual has reached maintenance levels of allergen and has achieved relief of symptoms, he or she may be considered for a waiver. With SLIT, it may not take as long to get to an initial maintenance dose, but there are often subsequent changes made to the concentration of one or more components of the allergens in the solution. If a change is made to the concentration of any component of the allergen solution of an aviator receiving SLIT, the individual will be in a down status for 7 days in order to be sure that there are no new side effects from the change. Applicants on a stable dose of AIT may be considered for waiver.

There has been success with an accelerated method of reaching maintenance (Rush technique), and, if available, this may be considered when grounding time must be minimized.

**DISCUSSION:** PAR and SAR are manifested by any or all of the following symptoms: rhinorrhea, sneezing, lacrimation, pruritus (nasal, ocular, and palatal) and congestion. Etiology is inhaled allergens (and on rare occasions, food in PAR). SAR tends to be seasonal or multi-seasonal, whereas PAR may be year round. AIT is used in the treatment of PAR/SAR following allergy testing, though, as noted above, AIT is not without problems. Sometimes individuals using either form of AIT will have some break through symptoms. This can sometimes mean that the individual will be receiving AIT and also using topical steroids or an approved antihistamine. This is very appropriate and is better than trying to tough it out and being at increased risk of barotrauma. Nasal inhaled steroids, azelastine and cromolyn have minimal side effects and are approved for use in aviation personnel, as are three non-sedating antihistamines (Claritin, Clarinex, and Allegra).

It can be very helpful in evaluating an individual for their suitability for a career in aviation to ask them about their experience in commercial flights and also about their ability to tolerate diving to a depth of 10' or more. If an individual is a certified SCUBA diver it is unlikely (although not impossible) for them to have significant Eustachian tube dysfunction or sinus problems. Please be sure to include information regarding their ability to tolerate pressure changes in your submission of a waiver request.

Allergic rhinitis may be mimicked by Vasomotor Rhinitis, which may consist of rhinorrhea, sneezing, and congestion. The congestion is often seen as alternating, sometimes severe, nasal obstruction. Inciting factors include temperature and humidity changes, odors, irritants, recumbency, and emotion. Treatment of vasomotor rhinitis with inhaled nasal steroids can be effective, and, if symptoms aren't disabling, no waiver is required. The potential for VR to cause barotrauma is nil.

**ICD-10 CODES/DIAGNOSIS:**

- J30 Vasomotor and allergic rhinitis**
- J30.0 Vasomotor rhinitis**
- J30.1 Allergic rhinitis due to pollen**
- J30.2 Other seasonal allergic rhinitis**
- J30.5 Allergic rhinitis due to food**
- J30.81 Allergic rhinitis due to animal hair dander**
- J30.89 Other allergic rhinitis**
- J30.9 Allergic rhinitis, unspecified**
- J31.0 Chronic rhinitis**

**Functional Endoscopic Sinus Surgery (FESS):**

- 09TR4ZZ Resection of Left Maxillary Sinus, Percutaneous Endoscopic Approach**
- 09QR4ZZ Repair of Left Maxillary Sinus, Percutaneous Endoscopic Approach**
- 09TQ4ZZ Resection of Right Maxillary Sinus, Percutaneous Endoscopic Approach**
- 09QQ4ZZ Repair of Right Maxillary Sinus, Percutaneous Endoscopic Approach**

## ALLERGIC RHINITIS WORKSHEET

EXAMINING FACILITY:				FACILITY UIC:			
TODAY'S DATE:				EXAMINER'S PHONE #:			
REQUESTING WAIVER?				REQUESTING TO ELIMINATE WAIVER?			
<b>HISTORY</b>							
<b>SYMPTOMS</b>		<b>FREQUENCY</b>		<b>TREATMENT</b>		<b>PRIOR PROBLEMS</b>	
	RHINORRHEA		SPRING		None		EAR BAROTRAUMA
	CLEAR		SUMMER		OTC Med		SINUS BAROTRAUMA
	CLOUDY		FALL		Steroid Spray		SINUSITIS; CHRONIC? RECURRENT? ACUTE?
	LACRIMATION		WINTER		Rx. Med*	OTHER:	
	SNEEZING		PERENNIAL		AIT**		
	CONGESTION						
	ITCHING						
How many years of sx.?				Typical duration of sx:			
CURRENT SYMPTOMS (if no sx. at present, when was pt. last symptomatic?):							
CURRENT THERAPY, IF ANY: *(LIST MEDS)				PAST EFFECTIVE THERAPY:			
**IF HX. OF ALLERGY IMMUNOTHERAPY, DATE BEGUN:						DATE COMPLETED:	
<b>PHYSICAL EXAMINATION</b>							
RIGHT EAR:						VALSALVA?	
LEFT EAR:						VALSALVA?	
<b>PHYSICAL EXAMINATION</b>							
NOSE:							
MOUTH:							
OROPHARYNX:							
SINUS FILMS RESULTS: (Include actual films if abnormal/submit all films on APT applicants)							
ENT EVALUATION: (ONLY IF REQUIRED PER WAIVER GUIDE )							
ALLERGY EVALUATION: ( ONLY IF REQUIRED PER WAIVER GUIDE)							
IMPRESSION:							
<b>FLIGHT SURGEON'S RECOMMENDED DISPOSITION</b>							
	NPQ, WAIVER RECOMMENDED				PQ, DISCONTINUE WAIVER		
	NPQ, WAIVER NOT RECOMMENDED						
FLIGHT SURGEON SIGNATURE/ STAMP							
PATIENT'S SIGNATURE:						DATE:	
PT'S NAME: LAST/ FIRST/ MIDDLE/RANK/RATE							
DATE OF BIRTH:			AGE:		SSN:		

## 6.2 CHRONIC SINUSITIS/SINUS SURGERY

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**AEROMEDICAL CONCERNS:** This is of particular concern because sinus barotrauma has the potential for in-flight incapacitation, prolonged periods of grounding, and other symptoms affecting performance. Patients with chronic sinusitis may have a wide variety of upper respiratory symptoms (congestion, intermittent facial pressure, post nasal drip, cough, Eustachian tube dysfunction, etc.) that can lead to frequent trips to sick call and an inordinate amount of time in a down status, thus impacting squadron flight schedules and mission accomplishment.

**WAIVER:** Students and designated aviation personnel who are diagnosed with chronic sinusitis while on active duty (history of condition) are NPQ. Waiver will only be considered after the disease has been successfully treated. Many patients with chronic sinusitis will require surgery, but there are some patients who will respond to prolonged courses of medical management. If surgery (usually FESS, or Functional Endoscopic Sinus Surgery) is performed, before the patient can return to flight duties, they must be healed and free of active disease as demonstrated by an endoscopic examination performed by the surgeon. Regardless of treatment method, the patient must demonstrate that his/her sinuses are able to tolerate pressure changes. In the recent past, this was usually accomplished by having the individual complete a functional hypobaric chamber run, demonstrating an ability to ascend to altitude and descend without sinus pain or pressure. As of March 2016 the Navy's hypobaric chambers have all been de-activated and this method of demonstrating the functional capability of surgically modified sinuses is no longer available. Since hypobaric chambers are no longer available. A hyperbaric chamber run down to 60 feet or a flight in an aircraft (not in control of the aircraft) that includes touch and go landings from 5,000' and 10,000' will demonstrate that the individual is able to tolerate pressure changes. Hypobaric chambers are still in use with the Army and the Air Force, so if you are near one of their hypobaric chambers, you could still make arrangements for a hypobaric functional chamber run.

The Navy Diving Medicine Community has been involved in the decision making process for this type of utilization of their Recompression Chambers (RCC) and has developed the following process (as delineated in BUMEDNOTE 6410 dated 10 Feb 2017) which is to be used to "clear" sinus surgery patients for a return to aviation duties once cleared for full duty by the patient's surgeon:

"These personnel do not require a diving duty physical exam, but must have a current aviation duty physical exam and be otherwise cleared for aviation duty by a Flight Surgeon prior to pressure testing. Upon receipt of a written referral or consultation from a designated Flight Surgeon, the cognizant Undersea Medical Officer will coordinate performance of the pressure test with the local Navy RCC. Results of the testing can be reported to the requesting physician using the space provided on the NAVMED 6410/12 Hyperbaric Pressure Testing of Aircrew Consultation Sheet, via the electronic health record, or in person, or telephonically. The NAVMED 6410/12 can be utilized and included in the health record for all RCC testing requests."

**Class III and Class IV aviators** (Air Traffic Controllers, Flight Deck Personnel, UAV operators, etc.) are somewhat of an exception to the above. For these individuals, a history of chronic sinusitis is not necessarily disqualifying. The Manual of the Medical Department, section 15-94: Class III Personnel Non-Disqualifying Conditions, lists the following as not being disqualifying:

“Chronic sinus disease, unless symptomatic and requiring frequent treatment.” In this vein, if a Class III or Class IV aviator requires chronic treatment or sinus surgery to manage their symptoms, this would be considered disqualifying. A waiver would be favorably considered when the patient reports that his/her symptoms have significantly improved such that they feel well and the surgeon states that the endoscopic exam shows a good surgical result and is ready to return the patient to full duty. A chamber run or other demonstration of their ability to tolerate pressure changes is not required.

Civilian applicants with a history of chronic sinusitis are NPQ. A waiver shouldn't be requested unless he or she is free of disease, as indicated by a recent ENT consultation with documentation of an endoscopic examination and on some occasions, a sinus CT. If surgery has been done, enclose any pre- and postoperative notes as well as the operative report. In addition, some evidence of the applicant's ability to handle pressure changes, regardless of treatment method, should be documented. Low pressure chambers are not generally accessible to civilians, so look for a history of recent successful SCUBA diving or aerobatic flying. Many individuals have not done either of these, so please include documentation of their ability to tolerate commercial flights or diving to a depth of 10-12'. If the applicant is military, make every attempt to have him or her perform a barofunction run in a hyperbaric chamber.

**PLEASE NOTE, IN THOSE PATIENTS WHO HAVE BEEN TREATED FOR CHRONIC SINUSITIS WITH SURGERY THERE IS NO NAMI REQUIREMENT FOR A POST-OPERATIVE CT SCAN.** Individuals who have had successful surgery will often have persistent changes on a CT scan that are of no clinical significance. We are more interested in the functional outcome. Although there are several very serious potential complications from sinus surgery, the most frequent “complication” is that patients who have had sinus surgery have an approximately 10% chance of requiring additional sinus surgery. This will generally necessitate at least one additional sinus CT scan as part of the subsequent evaluation and these sinus patients can end up with an amazing number of sinus CT scans. There is no need to add to this number with a post-op CT scan if the surgeon has documented a good surgical result with an endoscopic exam and the individual has demonstrated a good functional result with a functional baro run of some sort. If the patient successfully completes the run without pain or significant facial pressure, a waiver is generally recommended and usually granted. A common waiver stipulation is that the patient must have an annual ENT consultation with nasal/sinus endoscopy for the first 3 years after surgery (with annual submission) before a request for routine (every 5 years) waiver continuation can be recommended. The following is the usual provision in the waiver endorsement from NAMI: “ENT evaluation with endoscopy 2 or 3 times in the first year and once a year for the next 2 years. After 3 years, if there is no evidence of recurrent sinus disease, may request change to routine submission. After that time ENT evaluation is necessary only if clinically indicated.”

#### **INFORMATION REQUIRED:**

1. Detailed information on the events that led to the diagnosis
2. Physical examination findings
3. X-ray studies (including CT scan if performed)
4. Details on the treatment provided or operation performed
5. Surgeon's postoperative findings and recommendations, including post-operative endoscopic examination findings.
6. Copies of the pre- and post-op notes and dictated operation report
7. Documentation of successful post-treatment/post-surgical barofunction using a hyperbaric chamber or touch and go landings in the “back seat” of an aircraft from 5,000' and 10,000' or other means (call NAMI ENT at 850-452-3256 to discuss if necessary).

8. Post-op CT report (if performed, please remember that this is not a standard NAMI requirement. A post-op CT scan should only be ordered if clinically indicated by the otolaryngologist/surgeon.)

In many cases, it is appropriate for a Local Board of Flight Surgeons to return the member to a flying status while awaiting the waiver, but it is best to consult with the NAMI Otolaryngology Department and NAMI Physical Qualification before doing so. **REMEMBER: Grounding physicals are required for any condition resulting in a grounding of greater than 60 days and Local Boards of Flight Surgeons are not appropriate after grounding by the Waiver Authority.**

**TREATMENT:** Chronic sinusitis can be relatively asymptomatic, and may only come to the attention of the flight surgeon because the member suffers an episode of sinus barotrauma. On the other hand, there may be persistent or intermittent cough, purulent postnasal drainage, facial pressure, nasal congestion, and low-grade malaise for many months without history of barotraumas before the flight surgeon is consulted. The symptoms may date back to a particularly severe upper respiratory infection, or even to an episode of acute sinusitis. The symptoms may be dismissed as allergic (although sneezing, clear rhinorrhea, and lacrimation are usually absent) and the patient may have been treated for allergies on multiple occasions, usually with little or no relief. By definition, chronic sinusitis is a condition that is present for more than three months, although in reality most patients have a considerably longer history of waxing and waning symptoms that often are mistakenly treated as multiple episodes of acute sinusitis. Broad spectrum antibiotic therapy with activity against anaerobes is recommended for three weeks or more. Decongestants, mucolytics, nasal saline, and topical steroid sprays are often prescribed, but there is no consensus as to their effectiveness in shortening the course of chronic sinusitis. If antibiotics fail to eliminate the symptoms and the x-rays don't improve, surgery is often the next step. Surgery may be done sooner in aircrew than in others because flying personnel are unable to do their jobs until the disease is eliminated. Again, be judicious in the use of CT scans since these patients can accumulate an amazing number of scans in the course of an evaluation and treatment.

**DISCUSSION:** Although early surgery may seem a bit extreme, it is quite effective in eliminating disease and returning aircrew to flying. Not all ENT surgeons are comfortable with doing early surgery, especially if the patient is asymptomatic and the CT shows only minimally diseased mucosa, but when the "minimal" disease is in the area of the osteomeatal complex, it can have a profound effect on the sinuses' ability to ventilate and thereby lead to recurrent episodes of sinus barotrauma. The Air Force studied 50 pilots and navigators who were found to have chronic sinusitis during an evaluation following an episode of sinus barotrauma. They all underwent FESS, and 47 returned to flying without further problems. The other three, because of barotrauma in the chamber post-op, needed a minor revision of the original surgery. They eventually returned to flying too. The post-op "functional check" is invaluable in proving that the member will do well upon returning to flying. Although it seems obvious that the functional check is necessary in someone who had suffered barotrauma previously, it is also necessary in post-op patients who never had barotrauma since it is possible for the surgery itself to cause scarring that can compromise sinus ventilation. An uneventful functional check puts those concerns to rest. Chronic sinusitis can recur in spite of successful treatment in the past, so the flight surgeon should have a relatively low threshold for treatment or for referral back to ENT if typical symptoms (or barotrauma) should resurface. There is one circumstance in which neither a waiver nor a chamber run would be necessary for an aircrew that has undergone FESS. Occasionally this surgery is done to open a maxillary sinus in order to decompress a mucus retention cyst. In such a case there is no chronic sinusitis, and the surgery itself has little chance of leading to barotraumas, but virtually all other patients who undergo FESS will need a waiver.

**ICD-10 CODES:**

**J32.0 Chronic Maxillary Sinusitis**  
**J32.1 Chronic Frontal Sinusitis**  
**J32.2 Chronic Ethmoid Sinusitis**  
**J32.3 Chronic Sphenoidal Sinusitis**  
**J32.4 Chronic Pansinusitis**  
**J32.8 Other chronic sinusitis**  
**J32.9 Chronic sinusitis unspecified**

**Functional Endoscopic Sinus Surgery (FESS):**

**09TR4ZZ Resection of Left Maxillary Sinus, Percutaneous Endoscopic Approach**  
**09QR4ZZ Repair of Left Maxillary Sinus, Percutaneous Endoscopic Approach**  
**09TQ4ZZ Resection of Right Maxillary Sinus, Percutaneous Endoscopic Approach**  
**09QQ4ZZ Repair of Right Maxillary Sinus, Percutaneous Endoscopic Approach**



## 6.3 NASAL/SINUS POLYPS

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**AEROMEDICAL CONCERN:** Chronic rhinosinusitis with nasal polyps (CRSwNP) is an inflammatory condition of the nose and paranasal sinuses that leads to development of nasal polyps. In this condition, nasal polyps arise as painless, benign growths that may gradually enlarge to restrict or block sinus drainage and ventilation. This commonly results in chronic rhinorrhea, nasal congestion, a decreased “sense of smell”, and frequent infections. Obstructed sinuses pose a significant risk for sinus barotrauma that can lead to in-flight incapacitation and prolonged periods of grounding. Decreased olfaction also compromises the timely identification of hazardous odors, fumes, and smoke that may occur in the aviation environment.

### **FS MANAGEMENT:**

CRSwNP is commonly diagnosed in aviators with a history of allergic rhinitis, chronic sinusitis, sinus barotrauma, or those with decreased olfaction. This condition may also be discovered in the asymptomatic patient during a routine flight physical examination. When aviators are suspected of having nasal polyps, an ENT referral should be pursued. ENT endoscopic evaluation will determine disease severity, help guide medical management, and may identify sinonasal abnormalities that require early surgical intervention.

Initial medical management is directed towards treating any underlying inflammatory or infectious conditions that may lead to resolution of obstructive nasal polyps. Routine therapies includes: (a) avoidance of known allergens, (b) nasal saline irrigations, (c) nasal steroids, (d) oral/nasal antihistamines, and (e) oral/nasal antibiotics. Depending upon etiology, systemic steroids and allergy immunotherapy may be used as adjunctive therapies. If medical therapy is effective in eliminating obstructive polyps, a post-treatment endoscopic exam and sinus CT will be required to ensure complete resolution of sinus disease for waiver determination.

If CRSwNP is refractory to routine medical management, then surgery is often recommended. Functional Endoscopic Sinus Surgery (FESS) is a minimally invasive surgery which uses endoscopes to remove obstructive nasal polyps and enlarge sinonasal drainage pathways. The improved sinus ventilation allows for easier access of topical medical therapies and a potential return of normal function. Since surgical treatment is highly effective in removing obstructive disease and post-operative recovery usually occurs within 4 weeks, aviators commonly pursue early surgical intervention to resume flying sooner.

Whether medically or surgically treated, CRSwNP is a chronic inflammatory condition that often requires continued medical management and surveillance. If symptoms are well controlled with aviation approved medications and ENT surveillance exams demonstrate effective treatment, an aviator would be eligible for a waiver. For aviation, effective treatment occurs when sinus drainage pathways are clear and when nasal polyp burden is either eliminated or determined to be minimal and non-obstructive on an ENT endoscopic exam.

In severe cases of CRSwNP (where significant disease recurs after conventional medical management AND completion of a comprehensive FESS procedure), prolonged courses of systemic steroids and/or biologics may be recommended. If the need for systemic steroids is

infrequent (<1 course/year) and there have been no occurrences of sinus barotrauma, the member may still be eligible for a waiver. If systemic steroid use is prevalent, a waiver is less likely to be recommended.

**Biologic agents** are a newer treatment modality that uses monoclonal antibodies to target specific molecular pathways of inflammation. In 2018, Dupilumab (aka-Dupixent), Omalizumab and Mepolizumab are the only FDA approved add-on maintenance treatment for adults with inadequately controlled CRSwNP. Dupilumab is prescribed as a self-injectable medication that is delivered subcutaneously every 2 to 4 weeks. Although long term efficacy and safety data is unknown, clinical trials have demonstrated its ability to reduce polyp burden and improve subjective symptoms with very few adverse side effects. Dupilumab and other emerging biologic therapies are clinically promising. Yet, as a maintenance therapy, availability of these medications in forward-deployed operational environments may be challenging. **Since biologics are used to control severe, refractory cases of CRSwNP, they are disqualifying for all aviation classes with duties involving flying.**

#### **Radiologic Imaging Requirements and Comments:**

1. CRSwNP patients managed *only with medical therapy* **do** require a post-treatment non-contrast CT scan of the sinuses to determine significant improvement with ostiomeatal (OMC) complex patency, or resolution of CRS.
2. \*\*\* *Surgically treated* CRSwNP patients **do not** require a post-operative CT scan unless clinically indicated. \*\*\*\*
3. Maxillary mucous retention cysts (MMRC) are routinely found as an incidental finding on various imaging modalities. When visualized on plain x-ray film, it may be difficult to determine whether a small, ovoid soft tissue density in the maxillary sinus is a MMRC versus a sinonasal polyp. If there are no clinical indicators to suggest CRSwNP (ie. recurrent sinusitis, recurrent barotrauma, polyps identified on exam), it is most likely a benign MMRC that does not require further evaluation and is NCD. If there is suspicion for underlying pathology, additional imaging with a CT scan or an ENT referral is recommended.

**WAIVER:** CRSwNP is considered disqualifying for all aviation duties involving flying (Class 1&2) and will require a waiver.

#### **Applicants:**

1. Presence of nasal polyps on a current exam is CD WNR.
2. Current use of biologic agent to control CRSwNP is CD WNR.
3. History of nasal polyps is CD with waiver consideration based on the following criteria:

A waiver may be considered if the polyps have been effectively treated with medical management or surgery (ie. Functional endoscopic sinus surgery) AND there is a one-year post treatment period with controlled symptoms and no evidence of polyp recurrence.

Designated:

1. Waivers are considered if the polyps have been effectively treated with medical management or surgery (ie. Functional endoscopic sinus surgery) AND the member is cleared by ENT to resume flying duties.
2. In designated aviators who meet clinical indications for Dupilumab or other biologic therapy, a waiver may be considered on a case-by-case basis.

**Both Applicants and Designated:**

- 1. Must demonstrate control of sinonasal symptoms on Aviation approved medications.**
- 2. Must successfully complete a barofunction challenge to include a Chamber ride or functional test flight (backseat ride).**

**AMS information required for a CRSwNP waiver submission:**

- A. ENT evaluation
- B. All Surgical Reports
- C. Any Imaging Reports (ie. CT scans)
- D. Surgeon's Post- Operative Notes. Usually 4-6 weeks s/p surgery, the note should include an endoscopic examination and recommendations for ongoing medical therapy and follow up.
- E. Barofunction Test: Must Pass a Hyperbaric/Hypobaric chamber ride or functional test flight. If treated with surgery- Test should be completed no sooner than 4wks after the surgery and after the ENT surgeon gives clearance to fly. (see ARWG 6.2)

**ICD-10 CODES:**

**J33.9** Nasal polyps, unspecified

**J32.0** Chronic Maxillary Sinusitis

**J32.1** Chronic Frontal Sinusitis

**J32.2** Chronic Ethmoid Sinusitis

**J32.3** Chronic Sphenoidal Sinusitis

**J32.4** Chronic Pansinusitis

**J32.8** Other chronic sinusitis

**J32.9** Chronic sinusitis unspecified

**J70.8** Respiratory conditions due to other specified external agents (AERD)

**09BK4ZZ** Excision Nasal Mucosa and Soft Tissue, Percutaneous Endoscopic Approach

## 6.4 DISORDERS OF THE SALIVARY GLANDS

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**AEROMEDICAL CONCERNS:** Pain or discomfort will usually result from retained salivary stones, especially after eating or drinking. Tumors may interfere with oxygen mask fit.

**WAIVER:** Following successful treatment of salivary stones or tumors, a waiver may be granted provided there is no facial deformity or nerve damage that would interfere with flight duties.

### INFORMATION REQUIRED:

1. Copies of all pertinent consultations
2. CT/MRI reports (and films, if available)
3. Operative report (if applicable)
4. Pathology reports (if applicable)

If pathology reports indicate a malignant process, the following information is also required:

1. Oncology evaluation

**TREATMENT:** Stone or gland excision (partial or total) is compatible with waiver, as are most cases of benign tumor removal. Extensive surgery for malignancy may not be, so each case of malignancy will be considered in detail by NAMI ENT before a recommendation can be made.

**DISCUSSION:** Mixed tumors (pleomorphic adenomas) comprise 65% of all salivary gland tumors; only a small number of these (5-6%) are malignant. The great majority of salivary tumors (85%) occur in the parotid gland, and 60% of these are the benign mixed type. Another benign tumor, the Warthin's tumor, accounts for 7% of parotid neoplasms, while malignant tumors (in descending order of frequency: mucoepidermoid carcinoma; malignant mixed tumor; acinous cell, adenoid cystic, and squamous cell carcinomas), and other rare lesions account for the remaining 33%. Benign mixed tumors have a recurrence rate of approximately 2%, usually due to incomplete removal, or seeding at the time of removal. Malignant tumors have a much higher rate of recurrence. With adenoid cystic carcinoma, 40% have metastasized by the time of diagnosis; 5-year survival is 45-82%, depending on the study, falling to as low as 13% at 20 years. The corresponding figure for adenocarcinoma is 49-75% at 5 years, with a drop to 41-60% at 10 years. The 20-year survival figures are not readily available. Fortunately, salivary gland disorders of any kind are rare in our population, so this section does not go into great detail. When questions arise that aren't answered here, please consult with NAMI ENT.

### ICD-10 CODES:

- C08 Malignant neoplasm of the other and unspecified major salivary glands**
- D11 Benign neoplasm of major salivary glands**
- D11.0 Benign neoplasm of the parotid gland**
- D11.7 Benign neoplasm of other major salivary glands**
- K11.2 Sialoadenitis**
- K11.3 Abscess of the salivary gland**
- K11.4 Fistula of the salivary gland**
- K11.5 Sialolithiasis**
- K11.8 Other diseases of salivary glands (includes stenosis and strictures)**
- K11.9 Disease of the salivary gland, unspecified (includes sialoadenopathy)**

## 6.5 HEARING LOSS/STAPEDECTOMY (OR STAPEDOTOMY)

Last Revised: April 2018

Last Reviewed: April 2018

**AEROMEDICAL CONCERNS:** The inability to clearly hear cockpit radio transmissions and warning tones can have a significant impact on flight safety.

For the purposes of this discussion, whenever the word stapedectomy is used it can be assumed that this also refers to a stapedotomy. Generally speaking, most patients with otosclerosis who undergo surgery are having a stapedotomy performed and not a stapedectomy, which was the original procedure that resulted in long term correction of stapes fixation secondary to otosclerosis. However, the term stapedectomy has remained entrenched and is used in this discussion.

**WAIVER:** Waivers will be considered depending on the degree of hearing loss, and the member's functional capability. Waivers following surgical treatment of conductive hearing loss may or may not be necessary, depending on the final hearing result and the nature of the surgery. For instance, repair of a traumatic eardrum perforation resulting in full correction and normal hearing would not require a waiver. However, a stapedectomy done to treat otosclerosis is CD and requires a waiver. Designated pilots are grounded for three months following stapedectomy before a waiver would be recommended to SG1. For NFO and other Class II of Class III personnel who undergo a stapedectomy, a waiver is also considered for duty involving flying after three months. **Grounding physicals are required for any condition resulting in a grounding of greater than 60 days and Local Boards of Flight Surgeons are not appropriate after grounding by the Waiver Authority.**

Waivers for applicants will be considered on a case-by-case basis.

Other waiver criteria for surgical correction of middle ear disease include:

1. Asymptomatic
2. Passes a current flight physical
3. Prosthesis used for stapedectomy was not a wire loop/gelfoam (a piston prosthesis and tissue seal is preferred versus a blood seal)
4. There are no other restrictions on the types of prostheses that might be used for other forms of ossicular reconstruction.

For all individuals with hearing loss of any variety- conductive, sensorineural, mixed (with or without surgical correction, no waiver will be recommended if there are signs of vestibular dysfunction, spontaneous nystagmus, or if progressive sensorineural hearing loss (SNHL) is present. A patient who has suffered a sudden SNHL will be considered for a waiver following ENT evaluation/treatment and after a suitable interval has elapsed in order to establish the stability of their hearing level (30 days at a minimum). If an individual has suffered severe sudden hearing loss and does not recover function in spite of aggressive treatment, it is unlikely that a waiver will be recommended. This individual is now reliant on one ear and to put that ear at risk in the noisy aviation or shipboard environment is unwise. Bilateral stapedectomy will be considered for a waiver on a case-by-case basis. For anyone undergoing a stapedectomy, the use of a tissue seal to seal the hole around the piston of the prosthesis is recommended over the use of a blood clot to seal the area around the shaft of the prosthesis. Presumably a tissue seal results in a repair that is less likely to suffer a perilymphatic fistula. **Applicants with a history of stapedectomy are CD, no waiver.**

**INFORMATION REQUIRED:** (Please note the standards for the worse ear listed below. There has been a mistake in previous iterations of this guide. See also ManMed section 15-85.)

1. ENT consult
2. Audiology consult (must include speech reception thresholds and speech discrimination scores)
3. Surgical report (if applicable)
4. Result of functional/cockpit hearing test if there is a SNHL or if a conductive loss persists following treatment/surgery that exceeds standards as listed below:

<u>500</u>	<u>1000</u>	<u>2000</u>	
35	30	50	(worse ear)
35	30	30	(better ear)

Wearers of hearing aids will also require:

1. Cockpit/in-flight hearing evaluation (to demonstrate the ability of the subject to communicate adequately in that noisy environment)
2. Air traffic controllers will also need to have a functional hearing test completed by their supervisor or other qualified individual to document that they are able to communicate effectively with the aircraft that they are controlling and with tower personnel.

Testing in a multiplace aircraft will suffice for testing of aviators normally assigned to single seat aircraft, provided ambient noise levels are similar. Newer hearing aids that sit entirely within the ear canal are comfortable enough to be compatible with in-flight use, although they may not improve one's ability to hear in that environment and may actually be detrimental. **Remember all equipment must be tested for use in the aviation environment to make sure that it is compatible with systems (i.e. will not explode at altitude).** Therefore an in-flight hearing test should be performed both with and without the aid(s), if the individual intends to wear them. In the past, use of the US Air Force in-flight hearing test was advised, but it proved to be difficult to administer. Instead, it would seem most practical to have the member repeat a list of common aviation phrases, such as checklist items and responses, air traffic control commands, air-to-air communications, etc. The list of phrases can be tailored to the aircraft and its mission. Admittedly, there would be no data on how well a normal-hearing individual would do on such a test, but at least you and the member will have an idea of where you stand. A third party with normal hearing can take the test at the same time so that there will be some means of comparison. Such testing should not be necessary unless the member fails to meet SG1 hearing standards that are listed above and/or is interested in trying a hearing aid in flight. Testing should also be considered in the rare instance of an aircrew member who is having communication difficulties in the aircraft in spite of an audiogram that shows pure tone thresholds to be above standards. A sample submission narrative for a functional hearing test is listed at the end of this portion of the waiver guide.

**TREATMENT:** Conductive hearing loss may well be improved with amplification (hearing aid) if surgical treatment is not a reasonable alternative, or the individual does not desire to pursue surgery. Benefits from amplification for SNHL are variable, but can be significant. The use of hearing aids in flight, however, is not necessarily advantageous due to possible interference with wearing of the helmet and the perceived lack of benefit in the noisy cockpit environment. Hearing aid users will often do well without the aids in the cockpit as long as they have a properly fitting helmet, wear noise attenuating plugs or Communication Ear Plugs (CEPs), and carefully adjust their radio volumes. Hence the in-flight hearing test gives the most

information if performed both with and without the aid(s). In some aircraft, it is possible to utilize active noise reduction headsets (e.g. those made by Bose and David Clark) which will further enhance speech intelligibility, although at some financial cost. In some aircraft, the noise cancellation headsets cannot be used because some of the cockpit alarms are external to the cockpit communication system and will therefore be cancelled by the noise cancellation technology.

**DISCUSSION:** Persons with conductive hearing losses usually hear relatively well in noisy backgrounds, due to a phenomenon called the paracusis of Willis, while those with SNHL are more often handicapped when there is significant background noise such as in the cockpit. In some respects, individuals with a sensorineural hearing loss can be considered to be comparable to a computer with limited bandwidth or RAM. Their inner ears have a limited ability to process the sounds that they hear and if there is a great deal of background noise, this noise takes up some of their bandwidth and limits their ability to understand the spoken words in their headset. Therefore, aeromedical decisions should be based on evaluation of hearing on the ground **and** in the cockpit, especially if the loss is severe enough to warrant use of a hearing aid or aids on the ground. Unilateral hearing loss presents few operational problems, but new or progressive unilateral loss can have significant medical implications and ENT consultation is necessary to rule out such conditions as acoustic neuroma or atypical Meniere's (cochlear hydrops). The guidelines used at NAMI for when to refer a patient for ENT evaluation of asymmetric hearing loss are:

- three contiguous frequencies that are each 10 dB or more worse than the same frequencies in the other ear,
- two contiguous frequencies that are 15 dB or more worse than the same frequencies in the other ear, or
- 1 frequency that is 25 dB worse than the same frequency in the other ear.

These are very tight guidelines and other otolaryngology departments may have different criteria. The important thing is to recognize when asymmetry is present and be sure that it receives appropriate consideration and evaluation if indicated. A stapedectomy may present problems because the operation creates an opening into the labyrinth, and involves the placement of a prosthesis. There is a risk of postoperative perilymph fistula, as well as subsequent shifting of the prosthesis, both of which can result in sudden attacks of vertigo. The 3 month post-op waiting period allows for healing, which reduces the chances that barotrauma (or an over enthusiastic Valsalva maneuver) will cause a perilymph leak.

Patients with sudden SNHL can present a diagnostic challenge. Frequently these patients have difficulty describing what they feel and in addition to saying that their hearing has diminished they use phrases like; "My ear feels plugged," or "My ear feels full." Frequently these patients end up with a course of treatment for Eustachian tube dysfunction when there is nothing wrong with their Eustachian tubes. **Examine patients with a complaint of sudden hearing loss carefully.** Observe their tympanic membranes for movement with Valsalva. Be suspicious of sudden SNHL and have a low threshold for using tuning forks, getting a formal audiogram or getting an ENT consult. The longer it takes for this to be recognized, the less likely it is that intervention will be successful to restore hearing. Current accepted management includes an aggressive steroid taper and also may include transtympanic steroids and/or hyperbaric oxygen. There probably is no role for oral antiviral medications. Some patients will recover most of their hearing with no intervention. But, a significant number of patients with sudden SNHL will not recover and this will have a significant impact on their quality of life and may not be waivable for aviation. The percentage of patients who recover serviceable hearing is improved with

steroid treatment. A waiver may be considered if there is adequate recovery and if stability is demonstrated for at least 30 days, assuming there were no vestibular symptoms.

Below is a brief paragraph that can be used to submit the results of a functional cockpit hearing assessment for aviation personnel who have hearing that is abnormal enough to bring into question their ability to communicate. This test does not need to be elaborate. All that needs to happen is for the individual to be tested in their airframe or usual duty station (the tower for an air traffic controller, for example) and to demonstrate that the individual is able to communicate clearly and without mistakes or repetition. An example of a situation where this would be required is an individual with otosclerosis who does not want to have surgery (or is not quite ready for surgery). He/she may or may not have hearing aids. Typically hearing aids are not used in flight, and probably should not be used in flight. The volume control for the headset works as a hearing aid. Before this individual can be considered for a waiver, we will need the results of a functional cockpit hearing test.

Make adjustments to this statement as necessary for your particular situation.

#### NARRATIVE STATEMENT FOR FUNCTIONAL COCKPIT HEARING TEST.

On (date) the subject, (name) had a functional hearing test performed at (location). The test was performed in (aircraft type) on the ground with the engine functioning and with the aircraft capable of achieving flight. (name) demonstrated that he/she was able to communicate clearly and effectively with the air traffic control personnel on the radio as well as with aircrew and ground crew personnel on the intercom. There were no errors in communication and he/she demonstrated effective understanding of instructions given over the radio. I was present during this test and witnessed his performance. (Alternatively you could state the pilot's name, or whoever it was, who witnessed the test and verified the performance.)

Signed:

If the test was done in an aircraft that was airborne (which is perhaps a bit more accurate) then change the second line accordingly.

#### ICD-10 CODES:

H90.0 Conductive hearing loss, bilateral  
H90.1 Conductive hearing loss with unrestricted hearing on the contralateral side  
H90.11 Conductive hearing loss, right ear, with unrestricted hearing on the contralateral side  
H90.12 Conductive hearing loss, left ear, with unrestricted hearing on the contralateral side  
H90.2 Conductive hearing loss, unspecified  
H90.3 Sensorineural hearing loss, bilateral  
H90.4 Sensorineural hearing loss unilateral with unrestricted hearing on the contralateral side  
H90.41 Sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side  
H90.42 Sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side  
H90.5 Unspecified sensorineural hearing loss  
H90.6 Mixed conductive and sensorineural hearing loss, bilateral  
H90.7 Mixed conductive/sensorineural hearing loss unilateral, unrestricted hearing on contralateral side  
H90.71 Mixed conductive/sensorineural hearing loss right ear, unrestricted hearing on contralateral side  
H90.72 Mixed conductive/sensorineural hearing loss left ear, unrestricted hearing on contralateral side  
H80.8 Other otosclerosis  
H80.81 Other otosclerosis, right ear  
H80.82 Other otosclerosis, left ear  
H80.83 Other otosclerosis, bilateral  
Z96.29 Presence of other ontological and audiological implants (includes stapes replacement)  
09B8 Excision of auditory ossicle, right  
09BA Excision of auditory ossicle, left



As an indication of how seriously hearing loss is being considered in individuals attempting to join the Navy, the following Memorandum from the Surgeon General of the Navy is included for your review. It states that individuals with hearing levels that do not meet accession standards (which are slightly worse than the standards for aviation applicants, see below) will not be allowed to enter the Navy. Generally speaking, the first official audiogram is obtained in Boot Camp or at OCS/TBS (or its equivalent). If the individual has a conductive loss that was previously unrecognized and that is amenable to treatment, that treatment may be undertaken if it is reasonable (again, see below). If the hearing loss is a sensorineural loss, then they will be discharged from the Navy at that time. No exceptions!



DEPARTMENT OF THE NAVY  
BUREAU OF MEDICINE AND SURGERY  
7700 ARLINGTON BOULEVARD  
FALLS CHURCH, VA 22042

IN REPLY REFER TO

5100  
Ser M00/14AT-0287204  
21 Apr 2014

MEMORANDUM FOR COMMANDER, NAVY MEDICINE EAST  
COMMANDER, NAVY MEDICINE WEST

Subj: GUIDANCE ON THE DISPOSITION OF ACTIVE DUTY AND RESERVE  
ACCESSIONS FAILING TO MEET HEARING REQUIREMENTS

Ref: (a) DoD Instruction 6130.03 of April 28, 2010  
(b) NAVMED P-117, Manual of the Medical Department, Article 15-38

Encl: (1) Guidelines on New Accessions and Hearing Loss

1. Enclosure (1) provides Department of the Navy guidance regarding the evaluation and disposition of accessions failing to meet the hearing requirements specified in references (a) and (b).
2. Please ensure your medical treatment facilities responsible for processing enlisted and officer accessions are aware and comply with the guidelines.
3. My point of contact for this matter is CDR Joel Bealer, MSC, USN, at 703-681-5392 or via e-mail at [joel.bealer@med.navy.mil](mailto:joel.bealer@med.navy.mil).

A handwritten signature in black ink, appearing to read "M. L. Nathan", is positioned above the printed name.

M. L. NATHAN

## Guidelines on New Accessions and Hearing Loss

Individuals seeking to serve in the Navy or Marine Corps are required to meet minimal health standards as specified in DODI 6130.03. Occasionally, the services may elect to waive certain conditions in order to meet manpower requirements. Hearing loss, however, is not a condition that may be considered for waiver. Military Entrance Processing Stations are effective in screening candidates. Occasionally, some individuals report to training commands before the condition is identified. The purpose of this document is to provide guidance on the evaluation and disposition of new Navy and Marine Corps accessions who fail to meet hearing standards.

### 1. Identification

a. All active duty and reserve personnel in the Navy and Marine Corps are required to obtain a reference audiogram at their initial point of training. Reference audiogram results are documented on DD Form 2215, placed in the medical record, and serve as the baseline to compare future hearing performance.

b. The initial reference audiogram should occur as early in the training cycle as possible to facilitate the evaluation and disposition process.

c. Minimal hearing performance standards as specified in DODI 6130.03 and the Manual of the Medical Department are:

(1) Pure tone thresholds at 500, 1000, and 2000 cycles per second for each ear of not more than 30 decibels (dB) on the average with no individual level greater than 35 dB at those frequencies.

(2) Pure tone level not more than 45 dB at 3000 cycles per second or 55 dB at 4000 cycles per second for each ear.

(3) There is no standard for 6000 cycles per second.

(4) Individuals failing to meet minimal hearing performance standards on their initial DD Form 2215 must be referred to an audiologist for full diagnostic evaluation.

### 2. Evaluation

a. Referrals for full diagnostic evaluations must be made to an audiologist with current privileges and license to practice audiology. Department of Defense (DoD)/Veterans Affairs providers follow and are most familiar with DoD requirements.

b. A full diagnostic evaluation in accordance with American Speech-Language-Hearing Association or American Academy of Audiology clinical practice guidelines must be performed to validate screening test results and rule out mitigating factors such as medical or functional issues that may adversely affect the results.

Enclosure (1)

### 3. Disposition

a. Individuals who meet hearing standards following a full diagnostic evaluation will proceed with training as directed.

(1) Any special testing requirements must be noted in both the physical and electronic health record.

(2) Examples of special testing requirements may include:

(a) Masking (Identified on initial screening exam)

(b) Collapsing ear canals

(c) Test anxiety

(d) Claustrophobia

b. Individuals failing to meet hearing standards following a full diagnostic evaluation will be released from military service.

(1) For accessions who fail to meet the standard due to a treatable medical condition, a reasonable effort will be made to resolve the condition prior to a final decision to retain or release.

(2) "Reasonable effort" will be determined at the discretion of the clinical facility directly supporting the relevant training command based on:

(a) Facility limitations

(b) Availability of specialists

### 4. References

a. DoD Instruction 6130.03 of April 28, 2010

b. Manual of the Medical Department, Chapter 15, Article 15-38

## 6.6 PERIPHERAL VERTIGINOUS DISORDERS

Revised: March 2025

Reviewed: March 2025

**AEROMEDICAL CONCERNS:** All forms of vertigo involve some degree of incapacitation and safety risk. Aeromedical decision making to return personnel to flight duties should consider risk of recurrence, mission, platform, and flight responsibilities. Waiver recommendations will be considered on a case-by-case basis.

### SUMMARY:

	<b>Risk of recurrence</b>	<b>Minimum time asymptomatic</b>
<b>Vestibular neuritis</b>	Minimal	4 weeks
<b>Labyrinthitis</b>	Minimal	4 weeks
<b>BPPV</b>	Variable	12 weeks (class I), 4 weeks
<b>Meniere's disease</b>	Variable/moderate	6 months
<b>Superior semicircular canal dehiscence</b>	<5% lifetime risk post-surgery	6 months (to SG3) 12 months (to SG1)

### DISCUSSION:

A precise diagnosis is not always possible in vertigo cases. Waiverability is easier to determine in vertigo cases with diagnostic certainty. Cases of unexplained vertigo, dizziness or disequilibrium with no definitive diagnosis are generally not recommended for aeromedical waiver due to inability to accurately assess future recurrence risk.

### VESTIBULAR NEURITIS:

- Vestibular neuritis (or neuronitis) is a common form of vertigo in young and otherwise healthy aviation personnel. It presents as isolated vertigo, lasting hours to days, and frequently preceded by a viral illness. Occasionally, the vertigo can be disabling enough to require vestibular suppressants such as diazepam or meclizine, which are not compatible with flight. Patients with vestibular neuronitis commonly have a protracted course of non-vertiginous imbalance lasting weeks to months after an episode. The use of vestibular suppressants can delay central compensation, so it is recommended that patients use them sparingly and only during the initial, acute vertiginous phase.
- The risk of recurrence for vestibular neuritis is low.
- If an individual has a viral illness associated with a brief (1-3 day) period of vertigo or disequilibrium followed by complete recovery of function and a normal neurologic evaluation (no evidence of vestibular dysfunction), then this can be classified as NCD. The individual may be returned to flight duties without need for a waiver if they remain completely free of symptoms for at least 4 weeks.
- More protracted cases of vertigo following viral illnesses should be fully evaluated with advanced vestibular testing, particularly in higher-risk personnel such as SG1 aviators. If an uncompensated vestibular deficit is identified, they will need to demonstrate complete

central compensation as indicated by vestibular testing performed by an audiologist or specialized physical therapist.

- Vestibular rehabilitation therapy improves recovery of patients with a protracted course of vertigo and referral is recommended.

### **LABYRINTHITIS:**

- Vestibular considerations are the same for those with vestibular neuritis, however, labyrinthitis presentation includes sudden sensorineural hearing loss. This is an ENT emergency, requiring urgent ENT referral with aggressive oral steroid taper, transtympanic steroids treatment and/or hyperbaric oxygen.
- Degree of recovery of hearing (see ARWG section 6.5) and vestibular function will dictate the potential for a waiver. Consideration for a waiver will require, at minimum, a 4-week asymptomatic period, normal or compensated results of vestibular testing.

### **BENIGN PAROXYSMAL POSITIONAL VERTIGO (BPPV):**

- Lifetime prevalence of BPPV was 2.4 percent (Brevern et al., 2007). Recurrences are common at 20-30% within the first year, and 50% of recurrences occurring over the first 6 months. Recurrence in USAF aviators reported at less than 1% in the first year and approximately 24% in five years after 6 months of remission (U.S. Air Force School of Aerospace Medicine, 2024).
- Canalith repositioning maneuvers (e.g. Epley Maneuver) expedite recovery. Advanced vestibular testing and/or therapy is not usually required but may be beneficial in cases with protracted symptoms or when the diagnosis is uncertain.
- Waivers for BPPV will be considered on a case-by-case basis, considering aviation personnel class, platform and mission. Aviation personnel with BPPV may be considered for a waiver when their symptoms have been completely resolved without recurrences for at least 4 weeks. A longer symptom-free period of 12 weeks should be considered for Class I, SG1 aviators, or in cases where there is diagnostic uncertainty.

### **MENIERE'S DISEASE:**

- The exact pathophysiology resulting in “endolymphatic hydrops” and Meniere’s disease (MD) is unknown. MD results in unpredictable, recurrent symptoms of vertigo, aural fullness, tinnitus and fluctuating hearing loss that may progress to a significant and permanent impairment with the potential to become bilateral.
- Treatment includes low sodium diet, thiazide diuretics, and stress management. Vestibular sedatives such as diazepam or meclizine may be used for active vertigo, however these medications are not compatible with duties involving flight. Despite treatment, the underlying condition persists and is typically not waivable. Surgery for MD or transtympanic middle-ear gentamicin therapy has variable results on vertigo. These treatments have not routinely been considered for waiver and will require one-on-one communication with the NAMI ENT Department or designated specialty SME.

- Waivers for MD are rarely recommended. They are considered on a case-by-case basis in those with prolonged remission, long term stability of symptoms, and normal function on vestibular testing using aeromedically appropriate non-sedating medical management or ablative therapy. If a waiver is granted for a pilot, he or she will have to demonstrate at least 6 months of being symptom free and will generally be recommended for SG3 only.

### **SUPERIOR SEMICIRCULAR CANAL DEHISCENCE (SSCD):**

- SSCD can result in vertigo provoked by loud noises or pressure-changing maneuvers such as coughing, straining (including anti-G straining maneuvers), or sneezing. Other symptoms include aural fullness and autophony in the affected ear.
- Diagnosis can be confirmed with temporal bone CT imaging, audiogram (may show conductive hearing loss) and vestibular testing.
- Definitive treatment is surgical resurfacing or plugging of the superior semicircular canal.
- Waivers are considered on a case-by-case basis after successful treatment. Class I personnel will likely be limited to SG3, non-ejection seat aircraft.

### **NEUROLOGIC CONSIDERATIONS:**

- Vestibular migraine: dizziness is a common symptom in patients with migraine.
  - Patients may have episodic symptoms described as vertigo, unsteadiness, or lightheadedness. These symptoms may be triggered by head movements, visual stimuli, and other common migraine triggers (stress, sleep deprivation, etc.).
  - There is wide variability reported in the temporal association of vertigo to the headache (before, during or after headache phase), but commonly the vertigo is associated with other migraine features (photophobia, phonophobia, nausea).
  - Symptomatic vestibular migraine is considered for a waiver on a case-by-case basis given the unpredictability of the symptoms, high prevalence of interictal symptoms, and non-aeromedically compatible medications typically recommended for treatment. See ARWG 10.5 for further headache waiver guidance.

### **WAIVER REQUIREMENTS:**

1. Complete history components:
  - a. Frequency
  - b. Duration
  - c. Severity
  - d. Character of vertiginous attacks
  - e. Type of maneuvers that provoke symptoms
  - f. Presence or absence of associated symptoms such as hearing loss, aural fullness, tinnitus, headaches, or focal neurologic symptoms.
  - g. Include past history of syphilis, mumps or other serious infections, inflammation of the eye, autoimmune disorder or allergy, and ear surgery.

2. Current physical including ENT and neurologic examination findings: nystagmus, balance, and results of Dix-Hallpike testing.
3. ENT evaluation.
4. Audiology evaluation including speech discrimination, tympanometry and acoustic reflexes.
5. Vestibular function testing (if completed): rotary chair testing, video nystagmography (VNG), vestibular evoked myogenic potentials (VEMP), electrocochleography (Ecog), dynamic posturography or dynamic visual acuity. Not every test is indicated and will depend on availability.
6. Results of vestibular rehabilitation therapy (if performed).
7. Results of follow up vestibular function testing with demonstration of resolution or compensation as indicated by vestibular testing (if applicable).
8. Neurology consult can be considered and should be included if completed.
9. Laboratory testing (when clinically indicated): consider CBC, ESR, TFTs, lipids, glucose, and syphilis serology.
10. Imaging (if indicated by diagnosis): pre/post-contrast MRI of the brain and internal auditory canal (IAC) to rule out retrocochlear pathology such as cerebello-pontine angle (CPA) tumors, multiple sclerosis, anatomical variants, etc. and/or temporal bone CT to rule out superior semicircular canal dehiscence.

**ICD-10 CODES:**

- H81.0 Meniere's disease**
- H81.01 Meniere's disease, right ear**
- H81.02 Meniere's disease, left ear**
- H81.03 Meniere's disease, bilateral**
- H81.09 Meniere's disease, unspecified ear**
- H81.1 Benign positional vertigo**
- H81.10 Benign positional vertigo, unspecified**
- H81.11 Benign positional vertigo, right ear**
- H81.12 Benign positional vertigo, left ear**
- H81.13 Benign positional vertigo, bilateral**
- H81.39 Other peripheral vertigo**
- H81.391 Other peripheral vertigo, right ear**
- H81.392 Other peripheral vertigo, left ear**
- H81.393 Other peripheral vertigo, bilateral**
- H81.399 Other peripheral vertigo, unspecified**
- H81.4 Vertigo of central origin**



**H81.2 Vestibular neuronitis**  
**H81.20 Vestibular neuronitis, unspecified**  
**H81.2 Vestibular neuronitis, right ear**  
**H81.2 Vestibular neuronitis, left ear**  
**H81.2 Vestibular neuronitis, bilateral**

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## 6.7 CHOLESTEOTOMA

Last Revised: April 2018

Last Reviewed: April 2018

**AEROMEDICAL CONCERNS:** This is a concern in aviation personnel due to hearing loss and risk of recurrence, with the possibility of labyrinthine involvement, and even intracranial extension in the more advanced cases.

**WAIVER:** A history of cholesteatoma is CD. It must be surgically removed before a waiver can be considered. Since the recurrence rate is approximately 35%, initial waivers are for one year only; an ENT consultation must be submitted before the waiver will be continued after that first year. Persistence of cholesteatoma would be cause for waiver withdrawal, pending the outcome of further surgery. Waivers for applicants will be considered on a case-by-case basis.

### INFORMATION REQUIRED:

1. Current ENT evaluation
2. Current audiology evaluation
3. Operative report

Since cholesteatoma surgery usually involves the mastoid, there is risk to hearing, balance, and facial nerve function. Any impairment in these areas should be addressed in the waiver request. Post-op hearing that is below standards will also require a waiver (see section on Hearing Loss).

**TREATMENT:** Surgical removal.

**DISCUSSION:** Given the relatively high recurrence rate, it is important that every attempt is made to assure that there is no residual disease. Recurrent or continuous drainage following surgery may indicate the presence of persistent cholesteatoma, and is not waivable until adequately treated. Occasionally, the surgeon will plan (or advise) a re-exploration of the ear at a specific time in the future, usually in 6-12 months. Every attempt should be made to have this done, as the surgeon most likely feels that the chance of there being persistent disease is fairly good. **If re-exploration uncovers residual disease, the waiver process must be repeated.** As a rule, each time residual cholesteatoma is found, the surgeon will recommend re-exploration at yet a later date until no further cholesteatoma is found. There is no policy stating the maximum number of repeat surgeries that are allowed before a waiver is permanently revoked, but **Code 53HN and ENT need to be advised each time a surgery is performed for recurrent cholesteatoma.**

### ICD-10 CODES:

H71 Cholesteatoma of middle ear

H71.9 Unspecified cholesteatoma of middle ear

H71.90 Unspecified cholesteatoma of middle ear, unspecified ear

H71.91 Unspecified cholesteatoma of middle ear, right ear

H71.92 Unspecified cholesteatoma of middle ear, left ear

H71.93 Unspecified cholesteatoma of middle ear, bilateral

09BD8ZZ Excision of right inner ear, via natural or artificial opening, endoscopic

09BE8ZZ Excision of left inner ear, via natural or artificial opening, endoscopic

## 6.8 VESTIBULAR SCHWANNOMA/ACOUSTIC NEUROMA

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**AEROMEDICAL CONCERNS:** Progressive hearing loss, tinnitus, trigeminal parasthesia, imbalance, and occasionally true vertigo have all been attributed to acoustic neuromas. Following surgery, total hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis can be present on the side of the procedure. Following treatment with radiation or proton beam therapy, some patients experience a gradual, but significant, decrement in hearing (up to 75% of patients in one study). Facial nerve weakness is less common, but possible, following radiation therapy.

**WAIVER:** One year following successful excision of a unilateral tumor, a waiver may be considered if there are no serious sequelae. Vertigo, ataxia, and facial paralysis are examples of unacceptable complications. Unilateral hearing loss, even total loss, is common following treatment (surgical or with radiation therapy) and may well be waiverable provided adequate hearing remains in the other ear and the hearing loss is compatible with the member's mission. Waivers for applicants are generally NOT recommended.

### INFORMATION REQUIRED:

1. ENT consult
2. Audiology consult
3. MRI (serial reports if indicated)
4. Neurology consult
5. Neurosurgery consult
6. Surgical report
7. Pathology report (if tumor was resected)
8. Radiation oncology report (if treated with radiation)
9. Post-operative vestibular evaluation including dynamic posturography and dynamic visual acuity testing to demonstrate complete compensation of any permanent vestibular deficit.
10. Functional cockpit hearing test if there is significant hearing loss present
11. Include a copy of any and all Medical Boards which have been written for the member (if applicable).

Untoward postoperative symptoms, such as recurrent headaches, as well as complications (CSF leak, facial paralysis, etc.), need to be especially well documented in the Aeromedical Summary and waiver request.

**TREATMENT:** Observation with serial MRI, Surgical excision, stereotactic radiotherapy, stereotactic radiosurgery, or proton beam therapy.

**DISCUSSION:** Vestibular schwannomas have a peak incidence in individuals approximately 50 years of age. They arise from the superior or inferior branch of the vestibular division of the eighth nerve within the internal auditory canal. Although patients may describe some degree of unsteadiness, true vertigo is not a very common presenting complaint due to central compensation of the gradually progressive loss of vestibular function on the affected side. Hearing loss is the most common presenting symptom, followed by tinnitus. Large tumors can extend from the internal auditory canal into the cerebellopontine angle as they enlarge and thereby impact cranial nerves in that region, such as the trigeminal nerve, resulting in facial

parasthesias/numbness. Other neurologic dysfunction is possible, so a thorough neurologic evaluation is critical. In patients with neurofibromatosis, neuromas can occasionally be bilateral. Vestibular schwannomas are virtually always benign. Operative morbidity is related to the size of the tumor, and hearing is often affected. Up to 50% of patients will have no useful hearing in the involved ear after surgery, although hearing preservation following surgical treatment of small tumors can be higher than with stereotactic radiosurgery. Other cranial nerves also may be damaged during surgery (i.e. trigeminal and facial). Facial paralysis may make wearing of an oxygen mask difficult, may result in speech problems, and can cause eye symptoms due to inability to close the eyelids. Radiotherapy is not without risk and although complications may take longer to develop, patients can still develop a significant hearing loss. There is a slight risk of benign cyst development and a rare possibility of malignant transformation. Persistent tumor growth occurs in roughly 5% of patients following various forms of radiation treatment and will require surgical excision. Treatment choice will be up to the patient and the available resources.

In the aviation community, where all individuals are part of the hearing conservation program and an asymmetric hearing loss may be the first sign of a problem, vestibular schwannomas are likely to be found before they have gotten very large and before there is a significant effect on the individual's ability to function. Many of these individuals will be unaware of their asymmetric hearing and will be otherwise completely asymptomatic. In these cases, it may be completely appropriate for the patient to elect no treatment. In these cases, they will usually be followed with serial MRIs at 6 to 12 month intervals. As long as there is no evidence of clinically significant vestibular dysfunction, these individuals may be eligible for a waiver to Service Group 3 after an initial 6 month period of observation. Generally speaking, if the tumor increases in size, if there is further decrement in the hearing on the affected side, if facial weakness or paralysis develops or if vertiginous symptoms develop, the tumor is either removed surgically or treated with stereotactically delivered radiation therapy. Roughly 50% of these lesions will not progress any further. If the tumor demonstrates growth at a rate greater than 2.5mm per year, the individual is at greater risk of hearing loss and should receive treatment sooner than later.

**This guide is not recommending a specific treatment. Regardless of treatment modality, if the treatment is effective and if the patient demonstrates a good recovery with good vestibular function, no significant complications and adequate hearing, a waiver is possible.**

**ICD-10 CODE:**

**D33.3 Benign neoplasm of cranial nerves, acoustic neuroma**

## 6.9 OVAL/ROUND WINDOW FISTULA

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**AEROMEDICAL CONCERNS:** A perilymph fistula (PLF) can result in either the sudden onset of sensorineural hearing loss or a rapidly progressive and/or fluctuating loss, with or without episodic vertigo. It may mimic Meniere's disease.

**WAIVER:** A history of fistula is CD, no waiver, for all applicants. For a unilateral healed fistula in Designated Naval Aviator, ground for six months, SG3 for six months, then SG1. For NFO's and all Class II or III personnel, ground for six months, submit a waiver request. Call NAMI ENT in the rare case of bilateral fistulae.

### INFORMATION REQUIRED:

1. Copies of all records involving the initial clinical presentation
2. All ENT consults, notes, tests, operation reports, etc.
3. Audiology report
4. Vestibular test results

**TREATMENT:** Initial treatment is conservative, with avoidance of lifting and straining or exposure to significant barometric pressure changes, especially ones that might require a Valsalva maneuver. If a medevac is necessary, it will be important to limit altitude changes. If hearing and vestibular symptoms don't improve, and certainly if they worsen, exploratory tympanotomy is indicated. If a fistula is present, it can be surgically sealed.

**DISCUSSION:** While fistulae may occur spontaneously, most are associated with head injury or barotrauma, especially in the active duty population. Many patients with a "fresh" PLF from barotrauma will complain of vertigo coming in waves in a crescendo/decrescendo pattern accompanied by a progressive sensorineural hearing loss. This pattern of symptoms/findings occurs as perilymphatic fluid is forced through a tear in the round window (RW) membrane or through the annular ligament of the stapes in the oval window (OW). The tear in either the RW or the OW allows some perilymphatic fluid to escape and then may partially seal itself until more perilymphatic fluid is produced and forces its way through the defect. Perilymphatic fluid is thought to be produced as a filtration product of cerebrospinal fluid, so there is a bit of a pressure head that tends to force more fluid out through the defect in either the RW or OW.

PLFs may also occur as a result of Q-tip misadventure or improper cerumen irrigation technique. These will be associated with injury to the tympanic membrane and probably the ossicular chain. These patients will most likely have a conductive hearing loss in addition to the sensorineural loss that is caused by the PLF.

It will be of critical importance to know the timing of symptom onset in relation to the patient's flight profile in order to distinguish a PLF from Type II decompression sickness. Barotrauma of sufficient severity to cause a PLF generally only occurs during descent. If the onset of vertigo and/or hearing loss occurs during or after ascent (or a rapid decompression), consideration must be given to the more likely onset of DCS, in which case hyperbaric oxygen therapy is indicated. The descent involved in HBO treatments will make a PLF worse.

As surgery does not always seal the fistula, and recurrence is possible, various waiting periods are prescribed for different classes of personnel. The longest period is for designated Naval Aviators, as there is a considerable safety issue should acute vertigo occur during flight.

**ICD-10 CODE:**

**H83.1 Labyrinthine fistula**

**H83.11 Labyrinthine fistula, right ear**

**H83.12 Labyrinthine fistula, left ear**

**H83.13 Labyrinthine fistula, bilateral**

**H83.19 Labyrinthine fistula, unspecified ear**

## 6.10 EUSTACHIAN TUBE DYSFUNCTION

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**AEROMEDICAL CONCERN:** Eustachian tube dysfunction (ETD) may lead to chronic ear symptoms that could adversely affect flight performance and result in disqualifying middle ear conditions. When challenged with rapid pressure changes commonly experienced during flight; even mild forms of Eustachian tube dysfunction (ETD) may lead to significant barotrauma. The sudden ear pain can be incapacitating and poses a significant risk for flight safety.

**WAIVER:** Chronic Eustachian tube dysfunction with the inability to equalize middle ear pressure is considered disqualifying for all aviation duties involving flying. Waivers will be considered after the ETD is fully evaluated and successfully using current clinical best practices that includes ENT consultation.

1. Applicants: Chronic ETD is CD and waivers are rarely considered unless ETD is completely resolved. Normal otoscopy findings and TM mobility need to be demonstrated at least 6 months after medical or surgical intervention. Ear tubes are CD for applicants and waivers will rarely be considered in this case.
2. Designated: Chronic ETD is CD and waivers will be considered on a case-by-case basis.

### INFORMATION REQUIRED:

- A. History – symptoms (when on the ground and flying), duration. Treatment.
- B. Physical – HEENT including Valsalva.
- C. ENT consultation. Include any surgical reports if applicable.
- D. Audiology with Impedance test (tympanometry) consultation report.
- E. Barofunction Test - Must Pass a Hyperbaric/Hypobaric chamber ride or functional test flight after treatment. If treated with Balloon Dilation of the Eustachian Tube (BDET)- Test should be completed no sooner than 8 weeks after the procedure and after ENT surgeon gives clearance to fly.

**DISCUSSION:** The Eustachian tube (ET) is a narrow passageway that connects the nasopharynx to the middle ear space. It functions to: a) equalize pressure between the middle ear and the environment, b) clear secretions from the middle ear, and c) protect the middle ear from pharyngeal pathogens and sounds. At rest, it is normally collapsed. Aided by muscles associated with swallowing or yawning, the ET will transiently open to ventilate the middle ear space and equilibrate it to the surrounding atmospheric pressure. Eustachian tube dysfunction (ETD) can be classified as Obstructive (OETD) or Patulous (PETD).

A: OETD occurs when the ET does not properly open to ventilate or clear secretions from the middle ear space. Characteristics include: aural fullness, ear discomfort, tinnitus, and hearing loss. When clinically significant, it is commonly associated with persistent negative middle ear pressure that may lead to chronic otitis media, tympanic membrane (TM) retractions, perforations, and sometimes cholesteatoma. When subclinical, it may only become apparent with rapid barometric pressure changes that occur during flight. This baro-challenge induced ETD is frequently identified during aircraft descent. Since OETD is more common and



significant for members with duties involving flying, the remainder of this discussion will focus on this subtype.

B: PETD occurs when the ET remains in an open configuration. The middle ear and nasopharynx maintain a constant pressure environment that exposes the middle ear to pharyngeal pathogens and sounds. Typical findings include aural fullness, audible respirations, voice autophony, and/or pulsatile tinnitus. Although aviation barotrauma is not a major concern with PETD, an ENT evaluation is recommended if symptoms are persistent and/or bothersome.

### **Aviation Evaluation of ET Function:**

Most aviators are assumed to have good ET function based on successful repetitive exposures to barometric pressure changes. However, ET function is a dynamic process that is easily altered by transient or newly developed chronic medical conditions. Therefore, an assessment of ET function should be performed during every flight physical.

Key Elements when Assessing ET Function: \*\* Routine exam should document a benign ear history and normal otoscopic exam with TM mobility. \*\*

#### Ear History:

**1. Ask about difficulty clearing ears when flying, diving, or with other baro-challenge experiences.**

2. Document any history of ear barotrauma, aural fullness, hearing loss, otalgia, tinnitus, dizziness, recurrent ear infections, ear perforations, or ear surgery.

3. Determine if any comorbid conditions exist: Allergic rhinitis, sinusitis, chronic ear disease, gastroesophageal reflux.

#### Physical Exam:

1. Ensure a normal **Otoscopic exam and TM mobility**. TM mobility can be demonstrated with swallowing, Toynbee maneuver (swallowing with nose/mouth closed), or Valsalva maneuver (forceful expiration against closed nose/mouth).

2. Additional Testing: (if available)

- **Pneumatic Otoscopy** may be useful in assessing TM mobility, TM retractions, and/or middle ear effusions.

- **Diagnostic audiogram with tympanometry** may provide useful information regarding middle ear function and an indirect assessment of ET function. This can be especially helpful when TM mobility is not visualized, and ET function is uncertain (ie. the new aviator with a normal otoscopic exam but minimal baro-challenge history or the designated aviator recovering from an acute inflammatory condition).

### **Aviation Management of ET Dysfunction:**

If there is concern for ET dysfunction on routine exam or during a specific flight event, the flight surgeon should focus on determining and treating the underlying etiology.

1. **Acute ETD** is commonly due to infectious or inflammatory disorders that affect the upper airway (ie. allergic rhinitis, rhinosinusitis, pharyngitis, laryngopharyngeal reflux). Once the underlying etiology is medically managed, the ET should revert to its normal function. Acute ETD is Not Considered Disqualifying. It should be managed conservatively with temporary grounding until symptoms resolve and normal ET function is demonstrated. In cases where ETD results in barotrauma, the condition is still NCD if normal function returns, and recurrence is unlikely. **Repetitive ear barotrauma is treated as a chronic condition and will require ENT consultation and subsequent waiver determination.**

2. **Chronic ETD** is frequently associated with anatomic abnormalities: narrow ET or palatal dysfunction, chronic inflammatory conditions, and/or obstructive masses (adenoid hypertrophy, neoplasm). **All cases of chronic ETD are Considered Disqualifying for members with duties involving flying (Class I, II).** The flight surgeon will typically identify chronic ETD when members: a) fail to demonstrate tympanic membrane mobility despite appropriate medical management, b) report frequent difficulty equilibrating ear pressure during flying, and/ or c) show signs of chronic ear disease on routine otoscopic exam. **Chronic ETD will require ENT consultation and subsequent waiver determination.**

A typical ENT evaluation for recurrent barotrauma with or without chronic ETD should include ear microscopy, nasopharyngeal endoscopy, and formal audiologic exam with tympanometry. Initial treatment focuses on managing comorbid conditions such as allergic rhinitis, chronic sinusitis, ear disease, and other inflammatory disorders. If medical management does not resolve ETD, surgical procedures such as a) balloon dilation of the eustachian tube or b) tympanostomy (ear tube) placement may be recommended.

A). **Balloon Dilation of the Eustachian Tube (BDET)** was approved by the FDA for use in 2016 and has shown encouraging results in improving Obstructive ET Dysfunction. After optimal management of comorbid conditions, BDET has demonstrated improvement of ET dysfunction through various outcome measures. In some studies, successful BDET resulted in normalized tympanograms and the ability to demonstrate a normal Valsalva maneuver. Long term outcomes are still being evaluated.

B) **Tympanostomy Tubes** placed within the tympanic membrane are used to ventilate the middle ear space and effectively bypass a poorly functioning ET. Although a common and relatively benign procedure, ear tubes in military aviation can present significant challenges. Most will require permanent tubes that must remain patent. This is difficult when working in a rigorous environment where the ear canal is occluded with hearing protection and amplification devices. Common adverse outcomes include; ear tube failures (clogged, extruded), recurrent otorrhea, infections, granulation, and sometimes large central perforations. Another challenge is that subspecialty ENT care is not readily available to manage ear tube issues in the deployed setting. This may adversely affect mission performance. For these reasons, ear tubes are considered a final treatment option for managing OETD in the military aviator. The FS should seek NAMI guidance before the “designated” member proceeds with ear tube placement to ensure all options have been explored.

#### **ICD-10 Codes:**

**H68.0X Unspecified Eustachian salpingitis**

**H68.1X Unspecified Obstruction of the Eustachian tube**

**H69.0X Patulous Eustachian tube**

**H69.8X Other specified disorder of the Eustachian Tube**

**H69.9X Eustachian Tube Disorder, unspecified**

**T70.0 Otic barotrauma**

**Z96.22 Tympanostomy tube(s) status; history of tympanostomy tubes**

## 6.11 OTOLARYNGOLOGY - HEAD AND NECK SURGICAL PROCEDURES THAT DO NOT REQUIRE A WAIVER

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Assuming that recovery is uncomplicated and there are no other significant factors, the following surgical procedures do not require a waiver. If there is any question regarding suitability for aviation duties following one of these procedures, please communicate with NAMI ENT.

### **NASAL SURGERY**

***If any of the following procedures are done in conjunction with sinus surgery or balloon sinuplasty (refer to 6.2 and 6.3), then the patient will require a waiver.***

**Septoplasty with or without inferior turbinate reduction:** (any means of reducing the size of the inferior turbinates, such as cautery, debridement, coblation, cryotherapy, radiofrequency ablation, etc.). May return to flight duties when cleared by surgeon. Typically, within two weeks of surgery.

**Septorhinoplasty:** When postoperative tenderness has resolved so that the nose can be manipulated without discomfort (this can take up to 4-6 weeks) and cleared by surgeon the patient can return to flight duties. There can also be a risk of bleeding that can last up to three weeks or so.

### **EAR SURGERY**

**Otoplasty:** This procedure will frequently involve placing sutures to hold the auricle in a certain position until it can scar in place and retain that position. The patient should not be manipulating the ears (as would occur when putting on and taking off a helmet) until cleared by the surgeon, which again may take up to six weeks.

**Uncomplicated tympanoplasty for an otherwise uncomplicated tympanic membrane perforation:** If it is the second (or subsequent) attempt to repair a perforation, or if there is a history of chronic drainage or cholesteatoma, a waiver will be required. If the history is in some way complicated by duration or symptoms, then a waiver will probably be required. As an example of the type of surgery that would not require a waiver is the simple repair of a simple traumatic perforation, such as one caused by a slap injury. When in doubt, contact NAMI ENT.

### **THROAT SURGERY**

#### **Tonsillectomy**

#### **Adenoidectomy**

Tonsillectomy for benign indications, eg. recurrent tonsillitis or tonsil stones, is NCD.

**Uvulopalatopharyngoplasty (UPPP)** for primary snoring. [If the patient has obstructive sleep apnea and undergoes pharyngeal surgery, a waiver will be required. See the neurology section of the waiver guide for OSA waiver requirements.]

**Palatal stiffening procedures for treatment of primary snoring** (cautery, palatal implants, coblation, radiofrequency ablation, etc.). Primary snoring refers to the individual who snores, but does not have any evidence of obstructive sleep apnea. This is considered a “cosmetic” problem and may be a nuisance but does not require a waiver. The surgical procedures to correct it do not require waivers unless there is some sort of complication that has an impact on aviation capabilities.

## **NECK PROCEDURES**

**Removal of submandibular salivary gland** if there is no malignancy. The marginal mandibular branch of the facial nerve is sometimes injured during this procedure. If it results in no difficulties eating or using a mask this is not disqualifying.

**Parotidectomy** if there is no malignancy. Again, the facial nerve can be injured in this procedure with potentially significant functional deficits. If this has occurred, it will probably require a waiver and may be permanently disqualifying.

**Removal of a branchial cleft cyst** if there is no debilitating nerve injury or other complication.

**Removal of other embryologic remnants** such as a thyroglossal duct cysts.

## **MISCELLANEOUS CONDITIONS**

**Nasal Fractures** typically do not interfere with sinus function and even if the fracture is not reduced, the patient usually retains an adequate airway. As soon as the patient can wear a mask without pain or distraction from tenderness, he/she may return to flight duties. This can take 4-6 weeks.

**Isolated fracture of the anterior wall of the maxillary sinus** (softball to the face is a common cause). These fractures do not require a waiver as long as the upper medial wall of the maxillary sinus, where the drainage pathway is located, is uninvolved. Again, it may take 4-6 weeks for tenderness to resolve to the point of being able to tolerate a mask or other safety equipment.

**Peritonsillar abscess.** If the patient chooses not to have an interval tonsillectomy (often done ~6 weeks after drainage of the abscess) he/she may return to aviation duties when free of pain and off medications, typically 2-3 weeks.

**Face lift, or other cosmetic procedures** (facial nerve injuries can also occur with this procedure and if so, must not interfere with function of masks or other equipment).

### **ICD-10 CODES:**

#### **J36 Peritonsillar abscess**

**090K0XZ Alteration of nasal mucosa and soft tissue, external approach (rhinoplasty)**  
**090K3ZZ Alteration of nasal mucosa and soft tissue, percutaneous approach (rhinoplasty)**  
**09QM3ZZ Repair nasal septum, external approach**  
**09BM3ZZ Excision of nasal septum, percutaneous approach**  
**09BM0ZZ Excision of nasal septum, open approach**  
**09Q0XZZ External ear, right, external approach**

09Q1XZZ External ear, left, external approach  
09Q2XZZ External ear, bilateral, external approach  
09Q74ZZ Repair right tympanic membrane, percutaneous endoscopic approach  
09Q84ZZ Repair left tympanic membrane, percutaneous endoscopic approach  
0CBPXZZ Excision of tonsils, external approach  
0CBQXZZ Excision of adenoids, external approach  
0CB80ZZ Excision of right parotid gland (lesion), open approach  
0CB90ZZ Excision of left parotid gland (lesion), open approach  
0CBB0ZZ Excision of right parotid duct (lesion), open approach  
0CBC0ZZ Excision of left parotid duct (lesion), open approach  
0CBD0ZZ Excision of right sublingual gland (lesion), open approach  
0CBF0ZZ Excision of left sublingual gland (lesion), open approach  
0CBG0ZZ Excision of right submaxillary gland (lesion), open approach  
0CBH0ZZ Excision of left submaxillary gland (lesion), open approach  
0CBJ0ZZ Excision of minor salivary gland (lesion), open approach  
0CQ23ZZ Repair hard palate, open approach  
0CQ3XZZ Repair soft palate, open approach  
0JB40ZZ Excision right neck subcutaneous tissue and fascia, open approach  
0JB50ZZ Excision left neck subcutaneous tissue and fascia, open approach  
0JB40ZZ Excision anterior neck subcutaneous tissue and fascia, open approach