



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

IN REPLY REFER TO  
BUMEDINST 6600.16B  
BUMED-M3  
4 Oct 2021

BUMED INSTRUCTION 6600.16B

From: Chief, Bureau of Medicine and Surgery

Subj: ORAL DISEASE RISK MANAGEMENT PROTOCOLS IN NAVY MEDICINE

Encl: (1) Dental Caries Risk Management Protocol  
(2) Protocol for Treatment of High Caries Risk Patients  
(3) Remineralization Protocol for Incipient Carious Lesions  
(4) Prescriptions for Caries Prevention  
(5) Periodontal Disease Risk Management Protocol  
(6) Oral and Oropharyngeal Cancer Risk Management Protocol  
(7) How to Reduce Your Risk of Tooth Decay  
(8) How to Reduce Your Risk of Periodontal Diseases  
(9) About Your Oral and Throat Cancer Examination

1. Purpose. To update policy and guidelines for identifying and managing oral disease risk in Navy Medicine (NAVMED). A requirement to ensure dental providers are provided, at minimum, annual training and calibration on the contents of the Oral Disease Risk Management Program has been added. This instruction is a complete revision and should be reviewed in its entirety.

2. Cancellation. BUMEDINST 6600.16A.

3. Scope and Applicability. This instruction applies to all budget submitting office (BSO) 18 dental commands, units, and operational activities.

4. Policy. Policy guidelines for identifying and managing oral disease risk are provided in enclosures (1) through (6). Adherence to the guidelines will assure standardization of oral disease risk classification and management. Management of these risk factors can aid in prevention of future oral disease, effectively increasing dental readiness and health.

5. Background. Modern methodology for the prevention of progressive oral disease includes identification of those patients who have a high probability of developing disease. These individuals are distinguished by demographic, physical, lifestyle, and or other risk factors associated with the disease. Identification of these factors comes from clinical examination, laboratory tests, and surveys of disease incidence and prevalence. Prevention is the most effective means for controlling oral disease and maintaining an improved state of oral health among NAVMED's beneficiaries. Cost effective prevention requires a standardized risk management protocol which directs appropriate education and treatment based on level of risk.

6. Action

a. Assistant Deputy Chief, Medical Operations (BUMED-M3B) must:

(1) Ensure this instruction is implemented by all NAVMED personnel providing dental treatment at facilities under BSO-18 responsibility, per enclosures (1) through (9).

(2) Ensure the NAVMED dental specialty leaders for preventive dentistry, periodontics, oral maxillofacial surgery, oral maxillofacial pathology, operative dentistry, and comprehensive dentistry provide regular and coordinated review of changes in protocols and procedures that influence oral health.

b. Commanders, Naval Medical Forces Pacific, Naval Medical Forces Atlantic, and Naval Medical Forces Support Command must ensure commands follow all aspects of this instruction.

c. NAVMED commanding officers and senior medical and dental officers supporting medical and dental facilities under BSO-18 responsibility and aboard ships must:

(1) Ensure levels of risk for developing future dental caries, periodontal disease, and oral cancer are determined for each patient during their annual dental examination and recorded in their dental treatment record.

(2) Ensure dental patients receive appropriate education and treatment designed to minimize oral disease risk, per enclosures (1) through (9).

(3) Ensure dental providers are provided, at minimum, annual training and calibration on the contents of the Oral Disease Risk Management Program.

7. Records Management

a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned per the records disposition schedules located on the Department of the Navy Directorate for Administration, Logistics, and Operations, Directives and Records Management Division portal page at <https://portal.secnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-Information-Management/Approved%20Record%20Schedules/Forms/AllItems.aspx>.

b. For questions concerning the management of records related to this instruction or the records disposition schedules, please contact the local records manager or the Department of the Navy Directorate for Administration, Logistics, and Operations, Directives and Records Management Division program office.

8. Review and Effective Date. Per OPNAVINST 5215.17A, Medical Operations (BUMED-M3) will review this instruction annually around the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, Department of Defense (DoD), Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.

9. Forms. The NAVMED 6600/13 Oral Exam is available at <https://forms.documentservices.dla.mil/order/>.

  
G. D. SHAFFER  
Acting

Releasability and distribution:

This instruction is cleared for public release and is available electronically only via the Navy Medicine Web site at, <https://www.med.navy.mil/Directives>

DENTAL CARIES RISK MANAGEMENT PROTOCOL

1. A caries risk assessment will be performed on all active duty dental patients during the initial, annual and periodic oral examination, and documented within the electronic health record or recorded on the NAVMED 6600/13 Oral Exam form or other DoD dental examination form. Forms utilized will be dependent on the primary health record (paper versus electronic) in use at the dental treatment facility (DTF). Patients will be classified as low, moderate, or high risk for future caries experience per the criteria in subparagraphs 1a(2)(a) through 1a(2)(l) of this enclosure:

a. Low caries risk patients must satisfy all criteria listed:

(1) No new incipient or cavitated primary or secondary carious lesions during current exam.

(2) No factors that may increase caries risk. Factors increasing risk of developing caries may include, but are not limited to:

- (a) Poor oral hygiene.
- (b) Cariogenic diet.
- (c) Presence of exposed root surfaces.
- (d) Enamel defects or genetic abnormality of teeth.
- (e) One or more interproximal restorations.
- (f) Restoration overhangs or open margins.
- (g) Active orthodontic treatment.
- (h) Chemotherapy or radiation therapy.
- (i) Eating disorders.
- (j) Reduced salivary flow.
- (k) Suboptimal fluoride exposure.
- (l) Physical or mental disability impacting ability to perform proper oral health care.

b. Moderate caries risk patients exhibit subparagraphs 1b(1) and 1b(2) of this enclosure (demonstration of any single criterion necessitates an assessment of moderate caries risk):

(1) One or two new incipient or cavitated primary or secondary carious lesions during current examination.

(2) No incipient or cavitated primary or secondary carious lesions during current exam, but presence of at least one factor that may increase caries risk as outlined in subparagraphs 1a(2)(a) through 1a(2)(l) of this enclosure.

c. High caries risk patients exhibit subparagraphs 1c(1) through 1c(3) of this enclosure (demonstration of any single criterion necessitates an assessment of high caries risk):

(1) Three or more new incipient or cavitated primary or secondary carious lesions during current exam.

(2) Presence of multiple factors that may increase caries risk as outlined in subparagraphs 1a(2)(a) through 1a(2)(l) of this enclosure.

(3) Extreme dry mouth (medication-, radiation- or disease-induced).

2. Determination of caries risk classification will prompt treatment protocols specific to the risk category. Required educational and treatment protocols for each caries risk category are summarized in the table on the next page, and must be uniformly implemented throughout Navy dentistry.

DENTAL CARIES RISK MANAGEMENT PROTOCOL

LOW CARIES RISK	MODERATE CARIES RISK	HIGH CARIES RISK
<ol style="list-style-type: none"> <li>1. Oral hygiene instruction.</li> <li>2. Fluoride dentifrice.</li> </ol>	<ol style="list-style-type: none"> <li>1. Oral hygiene instruction and oral disease education using this instruction, enclosure (7) as an outline.</li> <li>2. Fluoride dentifrice.</li> <li>3. Caries elimination               <ol style="list-style-type: none"> <li>a. Restoration of cavitated lesions.</li> <li>b. Sealants for pits and fissures judged at risk.</li> <li>c. Incipient caries remineralization.</li> </ol> </li> <li>4. Identification of patient specific dietary modification (nutritional counseling).</li> <li>5. Professional topical fluoride treatment (5% NaF<sup>1</sup> varnish or 1.23% APF<sup>2</sup>) at 6 month intervals (may be accomplished concurrently with restorative treatment).</li> <li>6. Consider home fluoride treatments using prescription dentifrices, gels, or pre-fabricated trays.</li> <li>7. Discuss benefits of sugar free chewing gum and provide a sample, if available.</li> </ol>	<ol style="list-style-type: none"> <li>1. Oral hygiene instruction and oral disease education using this instruction, enclosure (7) as an outline.</li> <li>2. Fluoride dentifrice.</li> <li>3. Caries elimination               <ol style="list-style-type: none"> <li>a. Restoration of cavitated lesions.</li> <li>b. Sealants for pits and fissures judged at risk.</li> <li>c. Incipient caries remineralization.</li> </ol> </li> <li>4. Identification of patient specific dietary modification (nutritional counseling).</li> <li>5. Professional topical fluoride treatment (5% NaF<sup>1</sup> varnish or 1.23% APF<sup>2</sup>) at 3-4 month intervals (may be accomplished concurrently with restorative treatment).</li> <li>6. Home fluoride rinses (over the counter) or home fluoride treatments using prescription dentifrices, gels, or pre-fabricated trays.</li> <li>7. Discuss benefits of sugar free chewing gum and provide a sample, if available.</li> <li>8. Consider salivary replacements or stimulants in patients with reduced salivary function.</li> </ol>
1-Year Recall	6-12 Month Recall	3-Month Recall

<sup>1</sup>NaF: sodium fluoride    <sup>2</sup>APF: acidulated phosphate fluoride

PROTOCOL FOR TREATMENT OF HIGH CARIES RISK PATIENTS

1. Patient Education Component:

a. Inform the patient that carious lesions are not the disease, but the result of a disease process involving elevated cariogenic bacterial levels in his or her mouth. Placing a filling restores the damaged tooth structure, but may have little effect on the future activity of the cariogenic bacteria or disease progression. Therefore, in addition to tooth restoration, dental caries treatment must address the multi-factorial etiology of the disease.

b. Inform the patient that they may be receiving both surgical and non-surgical treatments designed to address the cariogenic bacteria in his or her mouth and mediate the other risk factors that cause caries. Success will depend largely on their compliance with the prescribed treatment.

2. Treatment Component:

a. Eliminate active caries

(1) Surgically restore active carious lesions demonstrating frank cavitation.

(2) Seal remaining deep, retentive pits, fissures, and initial non-cavitated lesions utilizing current evidenced based protocols and ideal isolation.

(3) Remineralize incipient caries (enclosure (3)).

b. Implement preventive measures (may be completed concurrently with elimination of active caries).

(1) Diet survey and modification.

(2) Provide oral health instruction (disease etiology and oral hygiene instruction).

(3) Provide 2-4 in-office fluoride treatments over a 6-12 month period using 5 percent sodium fluoride (NaF) varnish or 1.23 percent acidulated phosphate fluoride (APF) gel per current professional guidance.

(4) Implement prescription strength home fluoride usage [5000 parts per million (ppm) (1.1 percent NaF) toothpaste or gel] per current professional guidance.

(5) Discuss benefits of chewing sugar free gums that may contain Xylitol and provide a sample if available.

(6) Consider use of salivary replacements or stimulants if patient has been diagnosed with reduced salivary function, or if dry mouth is a reported patient concern.

c. Three Month Recall:

- (1) Monitor and review preventive measures outlined in subparagraph 2b.
- (2) Monitor sealant retention as applicable.

3. Documentation Component. All preventive instructions and treatment rendered will be documented in the dental treatment notes (progress notes) of the dental record.



REMINERALIZATION PROTOCOL FOR INCIPIENT CARIOUS LESIONS

The protocol in this enclosure is for remineralization of incipient (non-cavitated) early carious lesions. Implementation of additional treatments not included in Navy dentistry's basic required caries management is encouraged based on availability of command resources and current evidence-based literature.

Inform the patient that remineralization treatment is intended to "heal," rather than restore, the carious lesion, and that successful treatment will depend largely on compliance with prescribed treatment. The patient must understand the importance of appropriately timed follow-up visits so that lesion progression can be monitored. Patients should be informed that some lesions may require restoration if remineralization efforts are not effective.

Evidence based recommendations for the arrest or reversal of non-cavitated lesions are site specific and as a result, the steps in subparagraphs 1 through 3 of this enclosure may need to be customized based on clinical presentation. All preventive instructions and treatment rendered must be documented in the patient's dental record.

1. Step 1: Eliminate Active Caries

- a. Surgically restore active carious lesions demonstrating frank cavitation.
- b. Seal remaining deep, retentive pits, fissures, and initial non-cavitated lesions utilizing current evidenced based protocols and ideal isolation.
- c. Consider other non-surgical interventions including, but not limited to resin infiltration, and biannual application of 38 percent silver diamine fluoride per current evidenced based guidelines.

2. Step 2: Implement Preventive Measures. (Steps 1 and 2 may be completed simultaneously).

- a. Diet survey and modification.
- b. Provide oral health instruction (disease etiology and oral hygiene instruction).
- c. Provide 2-4 in-office fluoride treatments over a 6-12 month period using 5 percent NaF varnish or 1.23 percent APF gel per current professional guidance.
- d. Implement prescription strength home fluoride usage [5000 ppm (1.1 percent NaF) toothpaste or gel] per current professional guidance.

e. Discuss benefits of chewing sugar free gums that may contain Xylitol and provide a sample if available.

f. Consider use of salivary replacements or stimulants if patient has been diagnosed with reduced salivary function, or if dry mouth is a reported patient concern.

3. Step 3: Patient Recall

a. Monitor lesion size using bitewing x-rays if indicated. Radiographs should indicate no increase in lesion size, but will typically not indicate the complete reversal of lesions radiographically.

b. Monitor and review preventive measures outlined in step 2.

c. Monitor sealant retention as applicable.

4. Tooth surface-specific recommended treatments:

SURFACE	OCCLUSAL	PROXIMAL	FACIAL/LINGUAL	ROOT
Recommended Treatment	Sealant and 5% NaF <sup>1</sup> varnish every 3-6 months	5% NaF <sup>1</sup> varnish every 3-6 months	1.23% APF <sup>2</sup> gel or 5% NaF <sup>1</sup> varnish every 3-6 months	5000 ppm (1.1% NaF <sup>1</sup> ) toothpaste or gel 1-2 times a day

<sup>1</sup>NaF: sodium fluoride      <sup>2</sup>APF: acidulated phosphate fluoride

PRESCRIPTIONS FOR CARIES PREVENTION

High Fluoride Toothpaste

Rx: 1.1% Neutral NaF (PreviDent® 5000 Plus (Colgate), Clinpro® 5000 (3M), or comparable)  
Disp: One tube (ounces/gram vary)  
Sig: At bedtime, apply a thin ribbon to toothbrush. Brush thoroughly for 2 minutes. Spit out medication. Do not swallow. Do not rinse, eat, or drink for at least 30 minutes after use for best results.

Refill X 3

---

Home Fluoride for Use in Fluoride Tray

Rx: 1.1% Neutral NaF (PreviDent® Gel (Colgate), or comparable)  
Disp: One 2 ounce (56 gram) tube  
Sig: At bedtime, apply 6-8 drops to custom fluoride carrier. Place in mouth for 5 minutes. Remove carrier, spit out excess, and go to bed without eating, drinking, or rinsing.

Refill X 3

---

Dental Laboratory Prescription for Fluoride Carrier Fabrication. Please fabricate maxillary and mandibular fluoride trays.

1. Use 0.060" soft vinyl vacuum form material.
2. Periphery should extend approximately 2 millimeters beyond the gingival margin.

Note: Scalloping of the tray margins and reservoirs are not required for fluoride carriers.

PERIODONTAL DISEASE RISK MANAGEMENT PROTOCOL

1. A periodontal disease risk evaluation will be performed on all active duty dental patients during the annual or periodic oral examination and documented within the electronic health record or recorded on the NAVMED 6600/13 Oral Exam form or other DoD dental examination form. Forms utilized will be dependent on the primary health record (paper versus electronic) in use at the DTF. Patients will be classified as low, moderate, or high risk for development of periodontal disease per these risk factors:

a. Periodontal screening and recording (PSR) score. Among clinical parameters, probing depths of 3.5 mm or more (PSR 3 or 4) may be predictive of subsequent attachment loss. Therefore, PSR scores are the primary indicator of future periodontal disease risk.

b. Presence of Dental Implants

c. Current Tobacco Use (or quit less than 1 year). Smokers are four to five times more likely to have periodontal disease than non-smokers. Spit tobacco use (sometimes referred to as smokeless tobacco) increases the risk of localized gingival recession, caries, and oral cancer.

d. Genetic Susceptibility. Assessed by asking the patient if any of his or her immediate family have lost teeth at an early age, have had treatment for periodontal disease, or has a history of diabetes.

e. Inadequate Oral Hygiene. Predictive of gingivitis and mild to moderate chronic periodontitis. Inadequate oral hygiene is considered true if more than 25 percent of tooth surfaces have visible plaque.

f. Past History of Periodontal Treatment

g. Pregnant or within 6 Months Post-Partum

2. Determination of periodontal risk classification will prompt treatment protocols specific to the risk category. Required educational and treatment protocols for each periodontal risk category are summarized in the table in this enclosure, and must be uniformly implemented throughout Navy dentistry.

PERIODONTAL DISEASE RISK MANAGEMENT PROTOCOL

LOW PERIO RISK	MODERATE PERIO RISK	HIGH PERIO RISK
<ol style="list-style-type: none"> <li>1. PSR 0, 1.</li> <li>2. PSR 2 without subgingival calculus.</li> <li>3. No additional periodontal disease risk factors.*</li> <li>4. No dental implants.</li> </ol>	<ol style="list-style-type: none"> <li>1. PSR 2 with subgingival calculus.</li> <li>2. PSR 3 in 1-2 sextants.</li> <li>3. Less than two additional periodontal risk factors.*</li> <li>4. 1-4 dental implants with:               <ol style="list-style-type: none"> <li>a. Probing depth ≤5mm.</li> <li>b. Stable bone levels relative to platform (if historical radiographs available).</li> <li>c. Prosthetic amenable to effective hygiene measures.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. PSR 4.</li> <li>2. PSR 3 in 3 or more sextants.</li> <li>3. Two or more additional periodontal risk factors.*</li> <li>4. 1-4 dental implants with:               <ol style="list-style-type: none"> <li>a. Probing depth &gt;6mm.</li> <li>b. Evidence of progressive bone loss (if historical radiographs available).</li> <li>c. Prosthetic not amenable to effective hygiene measures.</li> </ol> </li> <li>5. 5 or more dental implants.</li> </ol>
RISK MANAGEMENT	RISK MANAGEMENT	RISK MANAGEMENT
<ol style="list-style-type: none"> <li>1. Annual exam by general dentist.</li> <li>2. Prophylaxis as needed by trained auxiliary.</li> </ol>	<ol style="list-style-type: none"> <li>1. Annual exam by a general dentist.</li> <li>2. Prophylaxis by a dental hygienist:               <ol style="list-style-type: none"> <li>a. Frequency based on individual patient needs.</li> </ol> </li> <li>3. Evaluation and discussion of periodontal disease risk factors.</li> </ol>	<ol style="list-style-type: none"> <li>1. Referral for comprehensive exam by a periodontist or equivalent.</li> <li>2. Prophylaxis by a dental officer or dental hygienist:               <ol style="list-style-type: none"> <li>a. Frequency based on individual patient needs.</li> </ol> </li> <li>3. Evaluation and discussion of periodontal disease risk factors.</li> </ol>

\* Additional Periodontal Disease Risk Factors:

- Current tobacco user, or former tobacco user quit <1 year ago.
- Inadequate oral hygiene (>25 percent of tooth surfaces with visible plaque).
- Family history of tooth loss or diabetes.
- Past history of treatment for periodontitis.
- Pregnant or <6 months post-partum.

ORAL AND OROPHARYNGEAL CANCER RISK MANAGEMENT PROTOCOL

1. An oral and oropharyngeal cancer risk screening and clinical examination will be performed on all active duty dental patients during the annual or periodic oral examination and documented within the electronic health record or recorded on the NAVMED 6600/13 Oral Exam form or other DoD dental examination form. Forms utilized will be dependent on the primary health record (paper versus electronic) in use at the DTF. Patients will be classified as low or high risk for development of oral or oropharyngeal cancer per this criteria based on their history, symptoms, and clinical examination:

a. Patient History

(1) Tobacco, betel quid, or hookah use. Studies of oral cancer have consistently demonstrated that smoking and other uses of tobacco are the most consistently identified risk factors. Smokers have been found to have a 6 to 14 times greater risk of oral cancer compared to non-smokers. The risk of oral cancer associated with smoking is equivalent for men and women and diminishes with elapsed time since quitting. Vaping and e-products are not traditional forms of tobacco use and have far fewer ingredients. Typically, the only similar ingredient seen in vaping and traditional cigarettes and cigars is nicotine. Although nicotine has never been proven as an etiology for head and neck premalignant or malignant disease, use of these products still should be documented and discussed, as their effects on mucosa and the periodontium are not well known.

(2) Alcohol consumption. Is also a risk factor for oral and oropharyngeal cancer, especially with heavy consumption. The combination of heavy alcohol consumption with smoking increases the risk of oral cancer to a level greater than that resulting from either risk factor alone. This can be one hundred times higher than those who do not drink or smoke.

(3) Age. Oral cancer is closely related to increasing age, with over 80 percent of non-human papillomavirus (HPV) related oral cancer deaths occurring in persons 55 years or older. The average age of diagnosis of HPV-related oropharyngeal cancer is on average a decade or more earlier.

(4) Gender. Males are three times more likely than females to have either oral or oropharyngeal cancer.

(5) Ultraviolet Light. Cancers of the lip are more common in people who have outdoor jobs where they are exposed to sunlight for long periods of time.

(6) Immunocompromised State. Both types of cancers are more common in patients with a compromised immune system. History of HIV or organ transplant are examples.

(7) Genetic Syndromes. Patients with particular syndromes are at very high risk of oral and oropharyngeal cancer, to include Fanconi anemia and dyskeratosis congenita.

(8) Sexual History and Practices. HPV mediated oral disease and oropharyngeal cancer is most commonly transmitted through oral sex. Use of condoms and dental dams significantly lowers the risk of oropharyngeal cancers. In addition, patients with multiple sexual partners and those younger than 17-years-old at time of first intercourse are at higher risk. HPV infection is the most common sexually transmitted infection in the United States. Most HPV infections clear the individual within 1 to 2 years. However, specific types (high risk) can cause cancer and HPV16 is linked to over 90 percent of oropharyngeal (throat) cancer. It is common for these patients to be younger, without symptoms and with minimal alcohol or tobacco use. There is no Food and Drug Administration approved test for HPV infection in the mouth or throat for screening. Often, the first presenting sign of disease is enlarged nodes within the cervical lymph node chain, stressing the importance of neck palpation during a thorough screening examination.

b. Symptoms. Symptoms of pain, otalgia, tinnitus, dysphagia, odynophagia, hoarseness, or unexplained weight loss should be considered as part of the patient's oral cancer risk assessment.

c. Exam Findings

(a) Lichen Planus.

(b) Leukoplakia without resolution or change in appearance. These lesions are pre-malignant with a malignant transformation rate as high as 10 percent.

(c) Erythroleukoplakia or erythroplakia without resolution or from unknown origin. These lesions are pre-malignant with a malignant transformation rate of as high as 90 percent.

(d) Neck mass lasting greater than 2 weeks.

(e) Asymmetric palatine tonsils with enlarged tonsil on ipsilateral side as symptoms.

2. Determination of oral cancer risk classification will prompt treatment protocols specific to the risk category. Required educational and treatment protocols for each oral cancer risk category are summarized in the table in this enclosure, and must be uniformly implemented throughout Navy dentistry.

ORAL AND OROPHARYNGEAL CANCER RISK MANAGEMENT PROTOCOL

LOW ORAL AND OROPHARYNGEAL CANCER RISK	HIGH ORAL AND OROPHARYNGEAL CANCER RISK
<ol style="list-style-type: none"> <li>1. No questionable lesions.</li> <li>2. No concerning symptoms.</li> <li>3. One or more of these risk factors:               <ol style="list-style-type: none"> <li>a. Tobacco, Betel Quid, e-product, vaping or hookah use.</li> <li>b. Moderate to heavy alcohol use (&gt;2 drinks per day).</li> <li>c. Age 55 or older.</li> <li>d. History of HPV infection or high-risk sexual behavior.</li> <li>e. Immunocompromised or genetic syndrome with predisposition to oral cancer.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Presence of any of these potentially cancerous lesions:               <ol style="list-style-type: none"> <li>a. Neck mass present for over 2 weeks.</li> <li>b. Neck mass that is fixed, firm, &gt;1.5 cm or ulcerated.</li> <li>c. Asymmetric palatine tonsil without resolution.</li> </ol> </li> <li>2. Presence of concerning symptoms, listed in subparagraph 1b of this enclosure.</li> </ol>
RISK MANAGEMENT	RISK MANAGEMENT
<ul style="list-style-type: none"> <li>• Oral and throat cancer risk education, per enclosure (9).</li> <li>• Annual recall.</li> </ul>	<ul style="list-style-type: none"> <li>• If concerning lesion present, follow up in 2 weeks to evaluate resolution and biopsy if still present.</li> <li>• If neck mass present less than 2 weeks with no other risk factors, follow up in 1-2 weeks to evaluate resolution. If no resolution, refer to provider for further investigation to include imaging and fine needle aspiration.</li> <li>• If neck mass present greater than 2 weeks, refer to provider for further investigation to include imaging and fine needle aspiration.</li> <li>• If neck mass is fixed, firm, &gt;1.5 cm or ulcerated regardless of timeline, refer to provider for further investigation to include imaging and fine needle aspiration.</li> <li>• Oral and throat cancer risk education, per enclosure (9).</li> </ul>



## HOW TO REDUCE YOUR RISK OF TOOTH DECAY

Tooth decay (“dental caries”) is a complex disease process, caused by bacteria, and mediated by other important factors. Nearly everyone has the bacterium (mutans streptococci) that causes tooth decay. The two primary factors that influence the ability of these bacteria to cause tooth decay are diet and exposure to fluoride. There are some important things you can do to reduce the ability of these bacteria to cause cavities:

1. Reduce the number of times per day that you eat refined carbohydrates (“sugars”)

a. People who have more than three to five exposures to sugars per day tend to develop a greater number of cavities. What are exposures? They are “eating occasions” separated by at least 20 minutes. For example, a bowl of Frosted Flakes at 0900, followed immediately by a handful of M&Ms is considered *one* exposure; a bowl of Frosted Flakes at 0900, followed by the M&Ms at 0920 or 0930 is considered *two* exposures. Why 20 minutes? Because, whenever you eat, the bacteria in your mouth eat too; they metabolize refined carbohydrate to acid, and it takes about 20 minutes for the acid to clear from your mouth. The more frequently this acid is produced, the more likely it becomes that you will develop tooth decay. So, don’t keep soda, energy drinks, or coffee with sugar on your desk and sip on it throughout the day – this provides the bacteria with a continual supply of sugar!

b. Sweets aren’t the only foods that promote acid formation and tooth decay. Many foods that people generally consider “healthy” – fruit juices, sports drinks, and dried fruit (like raisins) – contain high levels of refined carbohydrates. So do snack foods such as potato chips, pretzels, and crackers (even saltines). Although some diet sodas, flavored waters, and energy drinks are made with artificial sweeteners, they can still be harmful because they contain high levels of phosphoric or carbonic acid. On the other hand, fresh fruits and many cheeses do not promote tooth decay. You cannot, and should not, eliminate all carbohydrate from your daily diet. Instead, try to reduce your number of between meal snacks and limit your refined carbohydrate intake to mealtimes.

2. Brush your teeth two times a day with fluoride toothpaste. Fluoride helps make your teeth more resistant to the decay process. Whenever possible, brush after meals and snacks. This removes food particles and helps clear the bacterial acids more quickly. If brushing cannot be done after meals, rinsing with water may help clear food debris and buffer acidic beverages. For maximum benefit, your teeth need frequent exposure to fluoride – brush for at least 2 minutes, two times each day. After brushing, do not rinse with water as this can remove beneficial fluoride, simply spit out excess toothpaste when done. Be sure to use a soft toothbrush and floss your teeth at least once each day.

3. Chew sugarless gum. Chewing sugarless gum can increase your salivary flow, which helps to neutralize and clear bacterial and dietary acids. If you chew gum, use a sugarless gum such as Trident®, Extra®, or Carefree® since the bacteria in your mouth generally cannot metabolize “non-sugar” sweeteners like Xylitol. Because saliva plays a large part in protecting you from harmful acids in your mouth, be sure to let your provider know if you feel you may have xerostomia or “dry mouth.”

## HOW TO REDUCE YOUR RISK OF PERIODONTAL DISEASES

The word “periodontal” literally means “around the tooth.” Periodontal diseases are serious bacterial infections that destroy the attachment fibers and supporting bone that hold your teeth in your mouth. About 20 to 30 percent of patients may experience more advanced forms of gum disease which when untreated leads to tooth loss. The main cause of periodontal disease is infection by bacterial plaque, a sticky, colorless film of germs that constantly forms on your teeth. In addition, certain behaviors and conditions appear to place patients at greater risk to develop periodontal diseases and experience tooth loss.

1. Tobacco Use. Tobacco use is linked with many serious illnesses such as cancer, lung disease, and heart disease, as well as numerous other health problems. Tobacco users also are at increased risk for periodontal disease. Smokers appear to be more likely to have periodontal disease, are more likely to have gum disease of greater severity, and are less likely to respond to treatment as well as non-smoking periodontal patients. The probability of having periodontal disease increases with the amount smoked. The chances of having periodontal disease are lower in former smokers than in current smokers. Smoking is considered among the most important risk factors for periodontal disease. Spit tobacco use (sometimes referred to as smokeless tobacco) increases the risk of localized gum recession.

2. Diabetes Mellitus. Diabetes is a disease that causes altered levels of sugar in the blood. If you are diabetic, you are at higher risk for developing infections, including periodontal diseases. The likelihood of periodontal disease increases when diabetes is poorly controlled. Infections such as gum disease can complicate the control of diabetes and result in more severe gum disease than in a non-diabetic patient. For diabetics whose condition is controlled, periodontal disease responds well to treatment and can be managed successfully. It is important for the dentist to know if there is a history of diabetes in your family.

3. Genetic Predisposition. There is strong evidence that heredity can contribute to the development of periodontal disease. Gum disease is known to develop in patients with various inherited disorders. Specific forms of gum disease develop in young patients who have a clear genetic predisposition. There is also data to suggest genetic influence in the probability of having adult periodontitis. If your parents or siblings have been treated for or lost teeth due to gum disease, you may be at greater risk for this condition.

The probability of developing periodontal disease increases with the number of risk markers present. Some of these risk markers such as heredity cannot be changed; however, knowledge of the conditions which can be modified is important for disease prevention and successful treatment. Good oral hygiene, reducing or discontinuing tobacco use, and following the instructions of your dentist regarding regular visits for examination and treatment are critical in optimizing your periodontal health.

## ABOUT YOUR ORAL AND THROAT CANCER EXAMINATION

The oral and throat cancer examination is an important part of your regular dental check-up. This examination includes a thorough examination of your mouth, saliva glands, throat, and neck. Nearly 54,000 new cases of oral and throat cancer are found every year in the United States. An estimated 10,750 people will die of these cancers.

1. What is the key? Early detection increases the chances of survival. Unfortunately, many oral cancers reach an advanced stage by the time a patient seeks dental evaluation. Due largely to delayed diagnosis, the 5-year survival rate for oral cancer is only about 65 percent. Oral cancer detected in the earliest stages has at least a 65 percent 5-year survival rate. Throat cancer, if caught early has a 5-year survival of over 80 percent and can be treated without surgery in most cases. A sore, with or without pain, in the mouth that does not heal can be an early sign of oral cancer.

2. What are the Risk Factors?

a. Age. The risk for oral cancer increases with age. The majority of non-HPV (human papillomavirus) related oral cancers occur after age 50. However, one-quarter of all cases occur in patients younger than 55; often these are associated with HPV infection.

b. Gender. Males have nearly three times the risk of females.

c. Behaviors. Tobacco use (particularly smoking), use of betel quid, and hookah, and heavy alcohol use (greater than 2 drinks per day) are associated with increased risk.

d. HPV. Human papillomavirus is a sexually transmitted virus that has a significant role in the formation of oral and throat cancer.

e. Ultraviolet light. The most common cause of lip cancer.

f. Sexual behavior. Multiple sexual partners without use of condom or dental dam, which lead to a very high risk of contracting the HPV.

3. How can oral and throat cancer be prevented? Patients have an important role in Primary Prevention and Early Detection:

a. Avoid tobacco products. Quitting smoking will lower your risk for numerous types of cancers.

b. Limit alcohol consumption

- c. HPV Vaccination. Recommended for males and females age 26 or younger. Vaccination is also Food and Drug Administration-approved for individuals age 27-45 and the benefits of the vaccine should be discussed with your primary care physician.
- d. Use condoms and dental dams during oral sex
- e. Use lip balm that contains sunscreen when outdoors and avoid tanning beds
- f. Early Diagnosis. Ensure you, your family, and shipmates have regular dental examinations with an oral and throat cancer screening. Report any ulcer or sore in the mouth that persists and does not heal in 2 weeks. Report any unusual swelling in the mouth or neck to your dentist. Complete a monthly oral self-examination.