

AAOM Clinical Practice Statement



Subject: Oral Contact Allergy

The American Academy of Oral Medicine (AAOM) affirms that oral contact allergy (OCA) is an oral mucosal response that may be associated with materials and substances found in oral hygiene products, common food items, and topically applied agents. The AAOM also affirms that patients with suspected OCA should be referred to the appropriate dental and/or medical health care provider(s) for comprehensive evaluation and management of the condition. Replacement and/or substitution of dental materials should be considered only if (1) a reasonable temporal association has been established between the suspected triggering material and development of clinical signs and/or symptoms, (2) clinical examination supports an association between the suspected triggering material and objective clinical findings, and (3) diagnostic testing (e.g., dermatologic patch testing, skin-prick testing) confirms a hypersensitivity reaction to the suspected offending material.

This Clinical Practice Statement was developed as an educational tool based on expert consensus of the American Academy of Oral Medicine (AAOM) leadership. Readers are encouraged to consider the recommendations in the context of their specific clinical situation, and consult, when appropriate, other sources of clinical, scientific, or regulatory information before making a treatment decision.

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<u>Review:</u>	AAOM Education Committee
<u>Approval:</u>	AAOM Executive Committee
<u>Adopted:</u>	October 17, 2015
<u>Updated:</u>	February 5, 2016

PURPOSE

The AAOM affirms that oral contact allergy (OCA) is an oral mucosal response that may be associated with materials and substances found in oral hygiene products, common food items, and topically applied agents. The AAOM also affirms that patients with suspected OCA should be referred to the appropriate dental and/or medical health care provider(s) for

comprehensive evaluation and management of the condition.

METHODS

This statement is based on a review of the current dental and medical literature related to oral contact allergy. PubMed and MEDLINE searches were conducted using the terms “contact allergy,” “oral,” “mouth,” “dental,” “hypersensitivity,” “contact allergic stomatitis,” and “allergic contact stomatitis.” Clinical studies, narrative reviews, case series, and case reports provided the basis for this statement. Expert opinions and best current practices were relied upon when clinical evidence was not available.

BACKGROUND

Oral contact allergy (OCA) is a type of hypersensitivity reaction that often poses a diagnostic challenge for health care providers. The prevalence of OCA is difficult to estimate because of inaccurate diagnosis, lack of reporting, and use of diagnostic codes that do not specifically represent this condition.^{1,2} OCA hypersensitivity reactions are the result of a complex immune-mediated process involving specific antigens that eventually sensitize T lymphocytes and ultimately cause release of inflammatory mediators.³ The clinical presentation of OCA is variable, and hallmark features of the condition include erythema (redness), edema (swelling), desquamation (peeling), and ulceration (mucosal defects), which often affect the gingiva, tongue, and/or lining of the oral mucosa.³ Patients may also experience cheilitis and/or perioral dermatitis (inflammation and/or edema of the lips and/or perioral skin) as a result of OCA.⁴ Patient-reported symptoms of OCA may include pain, taste alteration, compromised masticatory/speech function and overall decreased quality of life.^{3,4}

Several substances have been associated with OCA, including dental materials, flavoring agents, and essential ingredients found in oral hygiene products.⁵⁻⁹ Common dental materials that have been associated with OCA include amalgam, resins, acrylics, and metals, such as gold sodium thiosulfate, nickel sulfate, amalgam alloy components and mercury, chromium–cobalt, beryllium, and palladium chloride.⁵⁻⁹ Amalgam–contact hypersensitivity lesion, a type of lichenoid reaction with clinical features similar to oral lichen planus, has been specifically associated with

This article is being publishing concurrently at the AAOM website. The articles are identical. Either citation can be used when citing this article.

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amalgam restorations in direct contact with affected tissues.¹⁰ Flavoring agents associated with OCA include cinnamon, peppermint, spearmint, and fragrance mix.^{7,11} These ingredients are often found in common oral hygiene products, such as toothpaste and mouth rinse. In addition, essential toothpaste ingredients, such as cocamidopropyl betaine, propylene glycol, parabens, sodium lauryl sulfate, and triclosan, have been associated with OCA.¹²⁻¹⁴ Topically applied medications also can elicit OCA.

The diagnosis of OCA is achieved by identifying a temporal relationship of condition onset with any of the substances previously described, patient-reported symptoms, physical examination findings, histopathology findings, and results of dermatologic challenge testing of suspected contact allergens. Treatment of OCA may include removal and/or replacement of the dental material or reduction/cessation of use of the offending flavoring agent, oral hygiene product or topical medication. Use of topical medications, such as topical corticosteroids, anesthetics, and physical intraoral barriers to the offending material, such as occlusive splint, may be needed for management of the condition.³

CLINICAL PRACTICE STATEMENT

1. The AAOM recognizes that
 - a. OCA has been associated with dental materials, such as amalgam, resins, acrylics, and metals.
 - b. OCA has been associated with cinnamon, peppermint, spearmint, and other flavoring agents and essential ingredients commonly found in oral hygiene products, such as toothpaste and mouth rinse.
 - c. OCA has been associated with cinnamon, peppermint, and spearmint flavoring commonly found in food products.
 - d. OCA has been associated with use of topically applied medications.
 - e. common signs of OCA are erythema; edema; desquamation; and/or ulceration of gingiva, tongue, and/or lining of the oral mucosa. Lichenoid tissue reactions may be directly associated with amalgam restorations. Cheilitis and/or perioral dermatitis may also be signs of OCA.
 - f. patients may experience pain, taste alteration, compromised masticatory/speech function, and overall decreased quality of life as a result of OCA.
2. The AAOM thus encourages oral health care providers to
 - a. identify patients with symptoms that may suggest a diagnosis of OCA.

- b. complete a thorough medical history for patients with suspected OCA, including identification of a possible temporal relationship between
 - i. placement/use of dental materials and onset of signs/symptoms.
 - ii. specific oral hygiene products that may contain flavoring agents, such as cinnamon, peppermint, spearmint, and/or essential ingredients and onset of signs/symptoms.
 - iii. specific food products containing flavoring agents and onset of signs/symptoms.
 - iv. specific topically applied medications.
- c. complete a thorough physical examination to detect potential signs of OCA, such as
 - i. erythema
 - ii. edema
 - iii. desquamation
 - iv. ulceration
 - v. lichenoid reaction
 - vi. cheilitis
 - vii. perioral dermatitis
- d. refer patients with suspected OCA to the appropriate dental and/or medical provider(s) for further evaluation and management of the condition.
- e. replacement and/or substitution of dental materials should be considered only if
 - i. a reasonable temporal association has been established between the suspected offending material and development of clinical signs and/or symptoms.
 - ii. clinical examination supports an association between the suspected offending material and objective clinical findings.
 - iii. diagnostic challenge testing (e.g., dermatologic patch testing, skin-prick testing) confirms a hypersensitivity reaction to the suspected offending material.

<http://dx.doi.org/10.1016/j.oooo.2016.02.016>

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