FACT SHEET

FOR NON-ORAL HEALTH PROFESSIONALS

Tobacco Use and Oral Health

Background

Tobacco use, in any form, harms the mouth, teeth, and gums. It can cause many oral health problems, from bad breath (halitosis) to life threatening diseases, like oral cancer[1]. The FDI World Dental Federation has been working on tobacco cessation projects[2], encouraging healthcare professionals to help individuals quit tobacco use and dependency. The World Health Organization (WHO) recommends the integration of brief tobacco interventions into routine healthcare services to help reduce tobacco use and its associated health risks[3]. All Healthcare Professionals (HCPs) play a key role in helping people stop using tobacco.

In this fact sheet, HCPs will learn how to:

1. Recognize the impact of tobacco use on oral health.
2. Understand how quitting tobacco improves oral health.
3. Offer tobacco counselling and cessation interventions.

Examples of the harmful impact of tobacco on oral health are summarized below.

Oral cancer

Some facts about oral cancer

1. Oral cancer rates are decreasing in some areas but remain high in many countries like Sri Lanka, India, China and some European countries.
2. Smoking and smokeless tobacco products including areca nut (betel) and other products combined with tobacco, significantly increase the risk of oral cancer.
3. The risk of developing oral cancer increases with age. However, some countries report rising cases in young people.
4. The common sites for oral cancer are the tongue, floor of the mouth, inside of cheek and lower lip.
5. Smokers are up to 10 times more likely to develop oral cancer compared to non-smokers.
6. Smokeless tobacco users are 5 times more likely to develop oral cancer.
7. After 5 years of quitting, the risk of oral cancer is reduced by half.

Signs and symptoms of oral cancer

1. White or red patches inside the mouth.
2. A lump or sore that does not heal.
3. Pain or difficulty moving the tongue or jaw.

Oral Potentially Malignant Disorders (OPMD)

Some facts about OPMD

1. OPMD refers to conditions that could turn into cancer.
2. High-risk OPMD conditions include leukoplakia, erythroplakia, oral lichen planus, and oral submucous fibrosis.
3. The global prevalence of oral leukoplakia is estimated to be 3%. It is more common in Southeast Asia and less common in Western countries.
4. Smokers and betel quid users have a higher risk of developing these conditions.

Signs of OPMD

1. Leukoplakia: White patches inside the mouth; most frequent on the buccal mucosa, lateral border of the tongue or floor of the mouth.
2. Erythroplakia: Bright red patches inside the mouth; most frequent on the floor of the mouth, ventral underside and lateral part of the tongue, soft palate.
3. Oral lichen planus: White, red, or ulcerated lesions, often appearing on both cheeks, tongue, or gums.
4. Oral submucous fibrosis: Stiffening of the mouth tissues, making it hard to open the mouth or move the tongue.

Quitting tobacco reduces the risk of developing OPMD and its progression to oral cancer.

Periodontal disease

Some facts about periodontal disease:

1. Around 70% of tobacco users suffer from diseases in the periodontal tissues which includes periodontitis (often referred to as “gum disease”).
2. Smokers can be four times more likely to develop gum disease compared to non-smokers.

3. Periodontitis is a severe gum infection that damages the tissue and bone supporting the teeth, leading to premature tooth loss.
4. Smoking doubles the risk of tooth loss.
5. Because smoking reduces inflammation in the gums, signs like bleeding and redness may not be noticeable, delaying diagnosis.

Quitting smoking improves gum health and increases the effectiveness of gum disease treatments.

Other health problems

1. Bad breath and dry mouth: smoking causes dry mouth, leading to persistent bad breath.
2. Tooth discoloration: tobacco stains teeth, fillings, crowns and dentures.
3. Weakened healing: tobacco use slows down healing after oral surgery or tooth extraction.
4. Higher risk of cavities: smokers have a higher risk of developing cavities.
5. Smoker's melanosis: tobacco use can darken the gums; the discoloration often fades within three months of quitting.
6. Dental implant failure: smokers are more than twice as likely to experience implant failure, compared to non-smokers.
7. Second-hand smoke risk: children exposed to second-hand smoke are at higher risk of developing general diseases as asthma but also teeth cavities[4].
8. The evidence says that flavouring and sweetening agents added to tobacco products can be addictive and they increase the risk of dental caries.[5]

Why should HCPs identify oral health issues linked to tobacco?

Tobacco use damages oral tissues, leading to disease, pain, tooth loss and oral cancer. Second-hand smoke also harms oral health. Healthcare professionals can help by educating patients about these risks and encourage individuals to quit.

Key reasons to intervene[2]:

1. Children and adults should be educated by health care professionals on the risks associated with tobacco use.
2. Pregnant women need to understand the harmful effects of tobacco use on their health and that of their baby.
3. Using educational tools to show patients the visible effects of smoking, such as stained teeth or gum disease, can motivate them to quit.

Oral healthcare delivery framework

Ask

To find out if a patient uses tobacco, ask:

1. Do you smoke cigarettes?
2. Do you use any tobacco products such as smokeless tobacco?
3. How long have you been smoking?
4. How much do you use tobacco products in a typical day?
5. What age did you first start using tobacco products?

Look

Perform a basic oral exam (if it is in the scope of practice allowed by the regulator in your country) and check for:

1. Signs of oral cancer or precancerous conditions.
2. Advanced cavities or chronic infections.
3. Signs of tobacco use: such as teeth staining, bad breath, yellow staining of fingers, chronic cough, raspy voice and tobacco odour on clothing.

Decide

Determine if the patient needs immediate attention. Consider:

1. Life-threatening conditions, such as oral cancer.
2. Pain or infections, presence of abscess and facial swelling, periodontal disease.
3. Advanced dental decay.
4. Whether a simple lifestyle change is enough or if a specialist referral is needed.

Act

1. Ensure the patient has a dentist and primary care provider for evaluation.
2. Guide individuals to existing tobacco cessation programmes.
3. Advise individuals to quit tobacco use, using the FDI Tobacco Cessation Guide.

Document

1. Record tobacco use details, including type of tobacco and frequency.
2. Note any smoking cessation counselling and education given.
3. Document management of any oral diseases found.

References

1. Ford PJ, Rich AM. Tobacco Use and Oral Health. Addiction (2021)116, 3531–3540. doi:10.1111/add.15513
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3. World Health Organization. WHO monograph on tobacco cessation and oral health integration. Available from: https://www.who.int/publications/i/item/9789241512671 [Accessed on 4 March 2024].
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5. Erinso O, Clegg Smith K, Iacobelli M, et al. Global Review of tobacco product flavour policies. Tobacco Control. 2021;30:373-379. Available from: doi:10.1136/tobaccocontrol-2019-055454

Other Resources

1. FDI World Dental Federation. Educational module for other healthcare professionals. Available from: Educational Module for Other Healthcare Professionals | FDI (fdiworlddental.org) [Accessed on 12 March 2024].
2. FDI World Dental Federation. Tobacco Cessation. Available from: Tobacco Cessation | FDI (fdiworlddental.org) [Accessed on 10 April 2024].

Disclaimer:

This fact sheet provides general information and should be adapted based on the regulations and guidelines in each country.

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