

WHO Monograph on
Tobacco cessation
and **oral** health
integration



**World Health
Organization**

WHO Monograph on

Tobacco cessation and oral health integration



World Health
Organization

WHO monograph on tobacco cessation and oral health integration

ISBN 978-92-4-151267-1

© **World Health Organization 2017**

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: “This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition”.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. WHO monograph on tobacco cessation and oral health integration. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Printed in

Contents

Executive Summary 5

Acknowledgements 8

PART I. Association Between Tobacco Use and Oral Diseases: a Systematic Review 9

1. Introduction 9

2. Methodology for the Systematic Review 9

- 2.1. Selection of articles 9
- 2.2. Inclusion criteria 10
- 2.3. Definitions 10
- 2.4. Data collection and analysis 10

3. Results 11

- 3.1. Number of studies 11
 - 3.1.1. *Oral mucosal lesion, periodontal disease, and dental caries* 11
 - 3.1.2. *Dental caries associated with exposure to second-hand smoke* 12
 - 3.1.3. *Tooth loss* 13
- 3.2. Strength of association with characteristics of studies 14
 - 3.2.1. *Oral cancer and leukoplakia* 14
 - 3.2.2. *Periodontal disease* 17
 - 3.2.3. *Dental caries* 18
 - 3.2.4. *Tooth loss* 21
 - 3.2.5. *Effects on oral microorganism* 21

4. Discussion 22

5. References 23

PART II. The Potential Benefits of Tobacco Cessation on Oral Health Outcomes: a Systematic Review 29

1. Introduction 29

2. Methodology for the Systematic Review 29

- 2.1. Selection of articles 29
- 2.2. Inclusion criteria 29
- 2.3. Definitions 30
- 2.4. Data collection and analysis 30

3. Results	31
3.1. Number of studies	31
3.2. Effects of tobacco use cessation	32
4. Discussion	34
5. References	34
Part III. Integrating Brief Tobacco Interventions into Oral Health Programmes in Primary Care: Policy Recommendations	35
1. Introduction	35
1.1. WHO Oral Health Programme tobacco control policy	35
1.2. WHO policy on tobacco cessation	36
1.3. The unique role of oral health professionals in helping tobacco users	37
2. What should a national oral health programme do to promote tobacco cessation?	38
2.1. Oral health professionals should routinely offer brief tobacco interventions to all tobacco users in primary care	38
2.1.1. <i>The 5As model to help patients ready to quit</i>	39
2.1.2. <i>The 5Rs model to increase motivation to quit</i>	43
2.2. Strengthening oral health care systems to improve integrated delivery of brief tobacco interventions by oral health professionals	45
3. Engaging in tobacco control beyond the clinical setting	48
4. Conclusions	50
5. References	51
Appendix 1. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomized studies in meta-analyses	52
Appendix 2. Overview of selected studies to assess association of tobacco use (smoking and use of chewing tobacco) with oral cancer and leucoplakia	56
Appendix 3. Overview of selected studies to assess association of tobacco use with periodontal disease	64
Appendix 4. Overview of selected studies to assess the benefit of quitting tobacco use for oral health	66

Executive Summary

Background

Oral diseases pose a major health burden for many countries. These diseases share common risk factors of noncommunicable diseases (NCDs): tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol, and can benefit from common responses to NCDs, such as quitting tobacco use.

The guidelines for implementation of Article 14 of the WHO Framework Convention on Tobacco Control (WHO FCTC) recommend integrating brief tobacco interventions into existing health care systems as one of the first steps Parties should take to develop a comprehensive tobacco cessation and treatment system. Although brief tobacco interventions should be integrated into all health care services, oral health programmes could be a priority for integration of brief tobacco interventions in primary care because oral health professionals have the highest access to young and “healthy” smokers, and often have more time with patients than other clinicians to advise smokers to quit. Currently however, it is rare for oral health professionals to routinely discuss tobacco habits with their patients. The main barriers to providing tobacco cessation interventions are lack of knowledge and skills about tobacco and tobacco cessation, lack of professional leadership and lack of integration of tobacco cessation interventions with oral health programmes.

Since 2015, the WHO Tobacco Free Initiative (WHO TFI) and WHO Oral Health Programme have been collaborating to update evidence on tobacco use and oral diseases, as well as the impact of tobacco cessation on oral health, in order to lay a scientific foundation for integrating tobacco cessation interventions into oral health programmes in primary care.

Updated evidence on tobacco use and oral diseases

A systematic review was conducted to quantify: 1) whether there are any causal relationships between tobacco use and oral diseases; 2) what forms of tobacco use are causally associated with oral diseases; and 3) what types of oral diseases are caused by tobacco use. All relevant studies published between 2005 and 2015 that met

inclusion criteria were selected. Following the review stages, 32 studies were included for meta-analysis of association between tobacco use and oral cancer, leukoplakia and periodontal disease, 12 studies were included for meta-analysis of association between exposure to second-hand smoke and dental caries, nine studies were included for meta-analysis of association between tobacco smoking and tooth loss.

The review concluded that:

1. Tobacco use, including tobacco smoking and smokeless tobacco use, increases the risk for oral cancer and leukoplakia by five to six times.
2. Tobacco smoking increases the risk for periodontal disease by two times.
3. Exposure to second-hand smoke has a one-and-a-half to twofold higher risk of causing dental caries for both deciduous and permanent teeth.
4. Tobacco smoking increases the risk of tooth loss by one-and-a-half times.

Updated evidence on the benefits of tobacco cessation on oral health outcomes

A systematic review was conducted to evaluate whether tobacco cessation improves oral health outcomes. All relevant studies published between 1996 and 2015 that met inclusion criteria were selected. Following the review stages, nine studies were included for meta-analysis of the effects of tobacco cessation on oral health outcomes.

The review concluded that:

1. Tobacco cessation is significantly associated with better oral health outcomes: as measured by the number of lost teeth, periodontal health and the risk of new lesions or malignancies.
2. Tobacco cessation leads to a significant gain in clinical attachment level of 0.28 mm.

Integrating brief tobacco interventions into oral health programme in primary care

The recognition of associations between tobacco use and oral health, as well as the benefits of tobacco cessation on oral health outcomes makes it imperative for

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_26382

