

German Cancer Research Center, Heidelberg

Snus, a harmful tobacco product

Background

In the European Union, tobacco products are regulated by the Directive "on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation, and sale of tobacco products" (2001/37/EG)¹⁷. An important aim of Directive 2001/37/EC is the improvement of the health protection of the citizens. With regard to health protection, the Directive, amongst others, prohibits the placing on the market of tobacco for oral use. This is also valid for snus.

With regard to the concrete measures for the revision of Directive 2001/37/EC, which have been enumerated by the European Parliament and the European Commission, the German Cancer Research Center urgently recommends the adoption of mandatory legislation for all Member States that will guarantee a better protection of youth and consumers from the health hazards of tobacco. Such a legislation will, amongst others, continue to prohibit the placing on the market of smokeless tobacco products, including Swedish snus, because these products are harmful to health.

Snus is harmful to health

Swedish snus is an oral tobacco product that is placed between the lip and gum. It consists of finely ground tobacco, mixed with flavours, salt, water, humectants and chemical buffering agents. It is available loose and portion packed, both in different flavour varieties.

Smokeless tobacco products contain nicotine and cause addiction

Snus and other smokeless tobacco products contain nicotine that cause dependence⁷. Overall, smokeless tobacco products and snus deliver similar amounts of nicotine as cigarettes^{5,22}. During the course of a day users of smokeless tobacco absorb on average a similar amount or even higher quantities of nicotine than cigarette smokers⁶.

Users of smokeless tobacco develop dependency similar to that of smokers⁵. Young people who consume snus experience similar, if not higher nicotine dependence and withdrawal symptoms compared to cigarette smokers³⁰. Accordingly, for the consumers of oral tobacco cessation is difficult¹³.

Smokeless tobacco products contain carcinogens and toxic substances

Around 28 carcinogens have been identified in smokeless tobacco products²³. The major and most abundant carcinogens are the highly carcinogenic tobacco-specific *N*-nitrosamines, which are present in different concentrations depending on the type of product. In addition, smokeless tobacco contains volatile *N*-nitrosamines, form-

aldehyde, benzo[a]pyrene, heavy metals, polonium-210, uranium-235 and -238, and other carcinogens^{20,23}.

Nicotine is a neurotoxin and may cause symptoms of poisoning such as nausea and impaired respiration and can ultimately lead to respiratory arrest resulting in death^{18,19}. Nicotine doses of 0.8 to 1.0 mg/kg body weight are considered to be lethal. In children, as little as one milligram of nicotine can produce symptoms of poisoning¹⁹.

Smokeless tobacco products cause serious diseases that may be lethal

The carcinogenic substances in smokeless tobacco products can cause pancreatic cancer^{1,8,9,26}, oral cancer³¹ and oesophageal cancer⁹. Smokeless tobacco products, including snus, cause periodontitis, dental caries, tooth loss^{14,21,24}, gingival recession^{3,11}, premature birth, and preeclampsia (pregnancy-related high blood pressure)^{15,16}. Some scientific evidence suggests that consumption of smokeless tobacco may be associated with cardiovascular disease^{4,10}, diabetes and the metabolic syndrome²⁸ (Fig. 1).

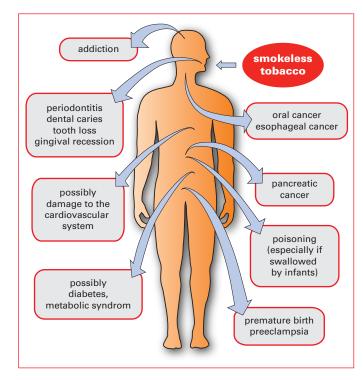


Figure 1: Health damage caused by the consumption of smokeless tobacco. Source: Ashley 2008⁴. Illustration: German Cancer Research Center, Unit Cancer Prevention, 2010.



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There is no reason to introduce smokeless tobacco products on the European market

Smokeless tobacco products do not provide any health benefit (Fig. 2) for the European population. However, in the long term they would increase the total tobacco consumption.

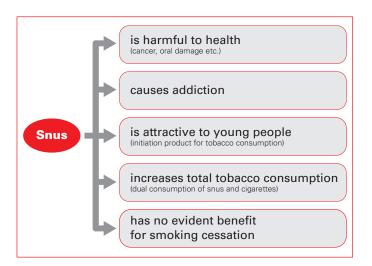


Figure 2: Disadvantages of snus. Illustration: German Cancer Research Center, Unit Cancer Prevention, 2010.

Smokeless tobacco products are attractive to young people

Smokeless tobacco products with low nicotine content and intense flavour can serve as initiation products for young people^{2,4,27}. In the United States and Sweden, consumption of smokeless tobacco products increased significantly in recent years, particularly among young men^{2,29}. The dual use of smokeless tobacco and cigarettes is common among young males^{29,35}.

Smokeless tobacco products will increase the total tobacco consumption in the long term

Manufacturers promote their products as a substitute for smoking in situations where smoking is not allowed⁴. In view of the increasing smokefree policies worlswide, this encourages additional smokeless tobacco consumption by smokers undermining the political efforts to reduce tobacco use^{12,27}.

Smokeless tobacco products are not effective for smoking cessation

Currently, there is no convincing scientific evidence that smokeless tobacco products could be helpful in smoking cessation^{4,32,33}. Thus, recommending smokeless tobacco products as an aid in smoking cessation may promote a false perception of safety.

Health risk can be reduced by tobacco cessation rather than switching to another form of tobacco usage³².

Experience from Sweden shows that snus has been used to switch from smoking to snus use rather than for tobacco cessation. Approximately one in four former smokers switch to snus²⁹, but most smokers (66 percent) succeed in tobacco cessation without the use of snus²⁵. Moreover, amongst women snus use is low and most of them succeed cessation without snus^{25,29}. In Sweden, tobacco consumption among men is high: 40 percent of Swedish men use tobacco²⁹. Although the proportion of smokers is low, the proportion of snus users has increased significantly, but the decline in smoking prevalence is primarily due to the sharp increase of never smokers.

The number of smokers has declined in many countries without use of any smokeless tobacco products

Thanks to increased implemention of tobacco control measures in recent years, smoking prevalence decreased in many countries where the sale of smokeless tobacco products is prohibited. For example in Germany, the UK, the Netherlands, Italy and Finland, in the period of 2006 to 2009, the proportion of smokers declined by five percent. In Sweden, however, the proportion of smokers declined to a lesser extent in the same period³⁴ (Fig. 3).

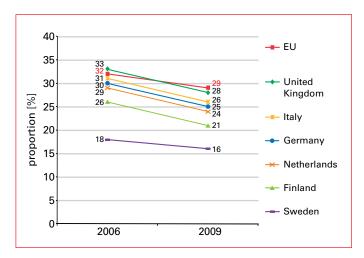


Figure 3: Proportion of smokers in selected countries of the EU. Source: TNS Opinion & Social, 2010 (Eurobarometer)³⁴. Illustration: German Cancer Research Center, Unit Cancer Prevention, 2010.

In order to protect the health of the European population the ban on oral tobacco products, including snus, should be retained.

Publication details

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Suggested citation:

German Cancer Research Center (Ed.): Snus, a harmful tobacco product.

Heidelberg, 2010

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From Science to Politics



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