

Nicotine pouches:

A briefing for Defence healthcare professionals

This briefing provides an overview of these products for healthcare professionals. These are relatively new products, having first entered the novel nicotine market in 2019, and this briefing may be updated as new information becomes available.

Q. What is a nicotine pouch?

- A.** Tobacco-free nicotine pouches are small sachets that contain a nicotine extract which the user places between the lip and gum, allowing nicotine to dissolve and be absorbed in the oral cavity and enter the bloodstream.¹ The pouches are intended to provide users with a hit of nicotine and are used as an alternative to smoking cigarettes.^{1,2} They can also be used in places where smoking or vaping is not allowed. They are sold in tins (see image below) and are available in a variety of flavours. A variety of nicotine strengths ranging from 3–18mg per pouch are available in the UK. Some manufacturers use a 1–4 system for indicating strength of nicotine. In addition to nicotine, the pouches contain other constituents, including food-grade additives, fillers, a stabiliser (hydroxypropyl cellulose), pH adjusters, noncaloric sweeteners, and flavourings. However, they do not contain tobacco.³



Lyft nicotine pouches



Q. Are nicotine pouches available in the UK?

- A. Nicotine pouches are a relatively new product that were introduced to the market in Great Britain in 2019 and originate from Scandinavia. There are five manufacturers currently in the UK. These products are primarily advertised online and promoted at the point of sale and by the use of free samples at events (e.g. festivals) as a tobacco-free alternative to smoking.² Some of the brand names for nicotine pouches sold in the UK are Velo, Lyft, Zyn or Nordic Spirit, Klint, ViD, Loop. While their use had been rare in the UK, there has been an increase in popularity.⁴ Nicotine pouch use is primarily among younger and middle-aged men who use other nicotine products and have a history of smoking.⁴

Q. How are nicotine pouches regulated in the UK?

- A. As oral nicotine pouches are tobacco-free products, they fall outside the Tobacco and Related Products Regulations (TRPR) 2016, and as no medicinal claims are made they are not regulated by the Medicines and Healthcare Products Regulatory Agency (MHRA).⁵ The regulatory position on them currently is likely to be under the General Product Safety Regulations (GPSR); however, a decision is pending. The maximum recommended amount of nicotine in the UK is 20mg/pouch. There have been reports of unregulated products in the UK that contain very high nicotine concentrations of up to 120mg of nicotine per pouch.⁶

Q. Who manufactures nicotine pouches?

- A. At present nicotine pouches are primarily manufactured by large tobacco companies such as British American Tobacco, Japan Tobacco International, Imperial Brands and Philip Morris International.^{7,8}

Q. What is the difference between nicotine pouches and snus?

- A. Snus is a type of moist powdered tobacco that is either loose or packaged in small sachets. Sachets of snus and nicotine pouches can be similar in appearance and are used in a similar way (placed between lip and gum). However, unlike snus, nicotine pouches do not contain tobacco. As a tobacco product snus is regulated differently and in the UK it is illegal for retailers (online or store-based) to sell snus. Some patients are calling nicotine pouches "snus", however, if the product does not contain tobacco, it is not traditional tobacco-containing "snus".



Q. Are nicotine pouches harmful to health?

- A.** There is limited evidence regarding the safety of tobacco-free nicotine pouches. In 2022, the UK Department of Health and the Office of Health Improvement and Disparities (OHID) requested a committee to review the evidence on the bioavailability of nicotine and other ingredients from the use of oral nicotine pouches and assessment of risk to users. The final report is forthcoming. One of the key questions relates to the potential risk associated with the non-nicotine constituents and flavourings found in nicotine pouches.

The health risks related to prolonged exposure to oral nicotine pouches has not been investigated and is an important data gap. Any form of nicotine can cause local irritation at the site of administration (e.g. dermal patch, nasal or oral sprays). This can include white patches in the mouth at the site of administration. The effects of nicotine on oral tissues have not been well defined. A recent systematic review concluded that nicotine levels typically found in the saliva of NRT and vape users is unlikely to cause cytotoxicity to human gingival and periodontal cells.⁹ However, the authors reported that saliva levels of nicotine in smokeless tobacco users may be high enough to achieve cytotoxicity, with more research required.¹²

Q. Are patients reducing their risk if they switch from smoking to nicotine pouches?

- A.** The use of oral nicotine pouches, as recommended by the manufacturer, as a replacement for cigarette smoking is likely to be associated with a reduction in overall risk of adverse health effects, although the magnitude of the decrease will depend on the health effect.

Q. Isn't any product that contains nicotine harmful?

- A.** Nicotine is the addictive substance in cigarettes and other tobacco products, but it is not responsible for the harm caused by smoking. Smoking-related illness is primarily caused by carbon monoxide produced by combustion and from the other chemicals and toxins found in cigarettes. We know that clean forms of nicotine such as that delivered by nicotine replacement therapies (NRTs) do not have significant health harm when used by adults smokers. NRTs deliver nicotine at a much slower rate than smoking cigarettes which means there is minimal risk that users will become dependent. While very high levels of nicotine exposure can be acutely toxic (causing dizziness and nausea, which usually resolves within hours of ending exposure and is very rarely fatal), these levels are not achieved through standard use of NRT products, vapes or nicotine pouches sold in the UK.^{13,14}



Q. Why would personnel choose to use nicotine pouches versus another NRT product?

- A.** There is demand for products that are less harmful than cigarettes, including vapes (e-cigarettes) and novel nicotine products.¹⁵ The role of marketing and advertising is likely to play a role in demand for these products. Available data indicates that nicotine pouches deliver nicotine more rapidly than some other oral nicotine-containing products (snus and nicotine gum).^{12,16} It can be hypothesised that some users may find the speed of delivery of nicotine pouches more appealing relative to NRTs.

Q. What side effects might someone using nicotine pouches experience?

- A.** Similar to other oral NRTs, individuals might get hiccups or a sore mouth or irritation at the contact site and an upset stomach can result from using too many (nicotine in saliva is swallowed and can cause nausea, dizziness, and upset stomach).

Q. Are nicotine pouches recommended as an aid to stop smoking?

- A.** Because so far we lack evidence of effectiveness, nicotine pouches are not a recommended stop smoking aid, although this could change in the future. We know the best way to quit smoking is a combination of expert support and a first line stop smoking medication such as nicotine replacement therapy or nicotine-containing vape.



Q. What guidance should I provide to patients I see who are using nicotine pouches or are thinking about using them?

- A.** Some individuals may choose to use nicotine pouches as a form of nicotine replacement. It can be helpful to ask patients if they are using the pouches to quit smoking or dual using (using both cigarettes and the pouches). You can ask the individual if they feel their use is helping with managing withdrawal symptoms and urges to smoke. All patients who are attempting to quit smoking or have recently quit may benefit from support from a trained stop smoking practitioner and you should offer this support to help personnel make the most of their quit attempt. It may be helpful to inform the individual that while nicotine pouches are not currently available as part of the Defence stop smoking medication, nicotine replacement therapy and other stop smoking aids are offered free of charge for personnel attempting to quit smoking, reduce their smoking or stay smokefree while on Defence Estates.

Q. What if my patient is determined to use nicotine pouches?

- A.** If personnel have stated that they will be using nicotine pouches, this may be considered harm reduction. However, patients should be advised of the possibility that there may be more health risks using nicotine pouches than using NRT. It is recommended that personnel who are using nicotine pouches be supported by a trained Defence Stop Smoking Practitioner, as is recommended for all personnel who are attempting to stop smoking or reduce their smoking.



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