

WHAT IS SWEDISH SNUS? - A BRIEF REPORT

Göteborgs Snusfabrik – October 2015

Swedish Snus is a very unique tobacco product.

It consists of a **moist to semi-moist ground and pasteurised tobacco**. It is used by placing it behind the upper lip. It comes in two varieties, loose or in portion-packed pouches and it is made from selected, mainly air and flue cured tobaccos, water, salt and natural flavorings. As it is pre-treated in a process very close to steam-pasteurisation, the levels of TSNA'sⁱ are considerably reduced at the same time as micro-organisms are neutralized to help keep it fresh.

As it contains a significantly much lower amount of TSNA's than most other tobacco products, recent scientific research reviews show **no evidence connecting the use of Swedish Snus as a causing factor to any medical conditions usually related to conventional tobacco use**, such as cancer, cardiovascular disease, stroke or diabetes, among others.

On the contrary, studies have shown that the availability of **Swedish Snus has indeed had a positive impact on public health in Sweden and other Scandinavian countries**. Statistics even show that it is the most popular smoking cessation aid in Sweden and Norway as it is **very efficient in helping people to quit smoking cigarettes**. As a majority of tobacco users favors Swedish Snus over smoking cigarettes, Sweden have got **the lowest rates of lung cancer incidence and mortality of any European country**, according to the World Health Organization's *International Agency for Research on Cancer*ⁱⁱ (IARC) and *World Health Ranking* statistics.

"Swedish Snus benefits public health"

Aftonbladet, Sweden, 29 September 2013:

*The scientific community agrees that Swedish Snus is less harmful than other tobacco products. In an article published in the international magazine *Drugs and Alcohol Today*, Dr. Karl Erik Lund, chief researcher at 'Statens Institutt for Rusmiddelforskning' (SIRUS) in Norway, presents new observations.*

*- We have been studying the impact of Swedish snus in regards to public health during many years. At this point we can establish the fact that **Swedish snus contributes explicit gains to the health status of the population**. This also applies to Sweden, Dr. Karl Erik Lund says to Aftonbladet. According to the scientific report, the use of Swedish snus have not resulted in double addiction, where people both smokes and uses snus. The consequences of the Anti-Snus lobby activities may prove lethal, according to Dr. Karl Erik Lund.*

- The focus on a tobacco free society may stand in the way of using Swedish snus as a harm reducing means. We might not be able to state how many lives has been won thanks to Swedish snus, but in all it indicates that Swedish snus have a positive effect on public health, says Dr. Karl Erik Lund.

Swedish Snus in many ways differs from anything else in the world of tobacco. The manufacture follows **strict procedures and hygienic standards**, as it is regulated as a food product by the

Swedish Food and Drug Administration. **It should not be confused with similar products**, such as American Dipping Tobacco, which in comparison is fermented, Chewing Tobacco, Snuff, or various forms of other oral tobacco, as used in the Americas, Northern Africa and some Asian countries. The mere association of Swedish Snus to such products have in turn had a very adverse impact on Swedish Snus, as it have led to conveniently made assumptions despite **insufficient evidence**. Unfortunately, such assumptions, drawn from inconsistent and inconclusive studies, led the EU to pass a ban on all sales of Swedish snus within the Union, Sweden being the sole exception, as they during the negotiations of joining the EU in 1992 reached a national exemption.

However, the world is opening up. The growing recognition of Swedish Snus as **an alternative to conventional tobacco use** have rendered a genuine interest in many countries. Swedish Snus is currently finding itself **new allies and sources of influence**, both in political and popular circles. Independent voices are being raised in support of Swedish Snus, in social media and international conventional press alike.

A strong indication of worldwide potential are the recent investments, joint ventures and **collaborations between manufacturers of Swedish Snus and Multi-International tobacco companies**, such as *Philip Morris International* who are currently promoting Swedish Snus for targeted International markets under their top brand names *Marlboro*, *Chesterfield* and *Parliament*, using their own, well established sales and distribution channels. Similar strategies are used by *British American Tobacco Group* and *Japan Tobacco Incorporated*. It is also a well known fact within the Swedish Snus industry, that market leaders are **making investments with a stated aim to further target the interesting prospects of the Asian market**.

A VERY BRIEF HISTORY

The use of Swedish Snus is a widespread tradition within the region of Scandinavia, dating back to the late 1700's. As tobacco cultivation started to spread in Sweden, in time, so did also the use of Snus, as it was both cheaper and more practical than other available means of manufactured tobacco for everyday use. In the dominant rural society at the time, many people would grow their own share of tobacco, dry the leaves and ground them, then mix the powder with water, salt and preferred flavorings. Eventually, Swedish Snus made it's way out into the rest of the world, in particular to the USA, with the help of Scandinavian emigrants during the 1800's.

A CONTEMPORARY VIEW

Today there is no other tobacco product in the world as much debated in both popular and commercial fields of interest, as well as within the scientific and medical communities, as the unique product of Swedish Snus. It is probably also safe to say that no other tobacco product in the world is more misunderstood due to a lengthy and diverse list of reasons, ranging from ignorance, prejudice, discrimination, to faulty or non-conclusive scientific research and a bias protection of financial stakes within the global medicine and tobacco industries. While active and passive smoking of tobacco causes almost 6 million undisputed deaths per year worldwideⁱⁱⁱ, according to the WHO^{iv}, the conclusive amount of human lives lost to the discreet use of Swedish Snus, of an estimate of 2 million users within Scandinavia, is none.

With about 28% of the European population smoking, and almost 700,000 deaths per year in

smoking related deceases, the European Union (EU) is constantly increasing it's efforts to reduce smoking further. As a consequence, the issue of Swedish Snus is ever present and continually pursued. This is in turn resulting in an increasing general awareness within the EU, regarding the use of Swedish Snus as a particularly interesting alternative use of tobacco. Well regarded newspapers around the continent and worldwide have started to raise questions, debating the use of Swedish Snus as an organic, harm reducing and sensible alternative use of tobacco, as well as an advisable and effective aid to the means of smoking cessation^v. The slow release of nicotine contents in Swedish Snus poses a lesser potential for nicotine dependency and has made it an acceptable alternative to smoking among many former smokers. It has also been noted that the use of Swedish Snus is widely accepted socially, as it effects no one other than the user. Opinions have also been raised, both politically and publicly, as to the unproportionately strict regulations of Swedish Snus within the EU membership states, including the other Scandinavian countries which historically have had the same or a similar traditional use of snus as Sweden.

The main reasons for the imposition of strict regulations by the EU towards Swedish Snus was based on bureaucratic ignorance and faulty conclusions. As the EU in 1992 banned all forms of oral tobacco use, they were specifically targeting Swedish Snus. They effectively denied it's access to the European market, thereby contravening the EU's own founding principle of free mobility of goods and services within the union. The EU's claim to reject Swedish Snus rested on the grounds that it was a recently developed tobacco product, thus disavowing an over 200 year old regional tradition of use. Furthermore, based on faulty or non-conclusive scientific research, the EU determined that Swedish Snus, just like other tobacco based products, caused cancer, thereby neglecting the notable lack of scientific evidence to this presumption^{vi}. As Sweden entered the EU in 1995, an exception was ultimately granted that allowed Sweden the manufacture and sale of Swedish Snus, as long as it was strictly confined within it's own national borders. With regard to the stated risks of cancer from the use of Swedish Snus, the EU dismissed it's own legislating foundation as early as 2001, in an agreement to remove all reference to cancer on the mandatory health warning labels for tobacco products. However, any negotiations regarding modifications or an ease to the ban of Swedish Snus from the rest of the European market was paradoxically denied.

A FUTURE PERSPECTIVE

The future of Swedish Snus looks very positive!

Despite the present restrictions and regulations within the EU, the growing recognition of Swedish Snus as an alternative to conventional tobacco use have rendered a genuine interest in many European countries. Swedish Snus is currently finding itself new allies and sources of influence, both in political and popular circles. Independent voices are being raised in support of Swedish Snus, in social media and conventional press alike. Even within the European Parliament, an increased acceptance of Swedish Snus, as a result of new and convincing scientific studies, as well as the consistent work of lobby organizations, is today challenging formerly set boundaries.

Another indication of worldwide potential are the recent investments, joint ventures and collaborations between manufacturers of Swedish Snus and Multi-International tobacco companies. For instance, *Philip Morris International* are currently promoting Swedish Snus for targeted International markets under their top brand names such as *Marlboro*, *Chesterfield* and *Parliament*, using their own, well established sales and distribution channels. Similar strategies are

used by *British American Tobacco Group*, whom are marketing their top brand *Lucky Strike* as Swedish Snus and *Japan Tobacco Incorporated*, whom are marketing *Camel*. It is also a well known fact within the Swedish Snus industry, that market leaders are making investments with an aim to further target the interesting prospects of the Asian market.

SWEDISH SNUS AND HEALTH ISSUES

Swedish Snus is being manufactured in accordance to the same strict set of regulations that is applied to food products by the Swedish Food and Drug Administration. Moreover, self-applied standards within the industry ensures that the actual manufacture procedures goes even further, in order to avoid any traces of unwanted compounds with negative health indications.

Many large scale research and analytic epidemiological studies has in recent years been independently conducted to determine the effects of Swedish Snus in relation to a wide amount of negative health effects. Most of the priorly published research, regarding the use of oral tobacco products in general, have been gravely misrepresentative in relation to Swedish Snus specifically, since they have been conducted with a wider focus, including all sorts of oral tobacco products, mainly used in USA and India. Unfortunately, the vital differences between such products in general and the important procedures that makes Swedish Snus so unique, have long been disregarded. As a dire consequence and despite many objections, these inconsistent and inconclusive studies have been referred to as authoritative, scientific precedents, and proved fundamental in determining the restrictive fate for Swedish Snus on both an financial level within the EU and a sociopolitical level within Scandinavia. In contrast, none of the more recent studies devoted specifically to Swedish Snus, as manufactured and used in Scandinavia, have been able to present any conclusive evidence indicating that Swedish Snus would cause any of the negative health conditions usually associated with tobacco use.

ASPECTS OF REVIEWED HEALTH RESEARCH

While negative health associations of Swedish Snus could be said to emerge from assumptions, drawn from inconsistent and inconclusive studies on a variety of smokeless tobacco products, recent reviews of authoritative scientific research clearly presents quite a different perspective. If the health aspect would have been the only factor responsible for European restrictions towards Swedish Snus, recent independent scientific conclusions should evidently be able to challenge and force international legislative authorities into adopting a completely new attitude towards Swedish Snus. In relation to increased awareness and newly raised opposition on multiple fronts, the current EU regulations may very well be the subject of critical review in a not too distant future and, if so, the commercial ban of Swedish Snus may also be re-negotiated

Recent independent reviews have focused on the studies of two major international authoritative organizations; *The International Agency for Research on Cancer (IARC 2007)* and *The European Commission's Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR 2008)*. It should duly be noted, that also these large studies have received criticism upon review, for being inconsistent and inconclusive in some cases, especially where firm conclusions of negative health effects has been made, despite insufficient evidence.

HEALTH EFFECTS OF SWEDISH SNUS : SCENHIR 2008

By 2005, *The European Commission's Scientific Committee on Emerging and Newly Identified Health Risks* (SCENIHR) was asked to produce a scientific report relating to health effects of smokeless tobacco products in general, and with a specific focus on Swedish Snus in particular. SCENIHR published its report in February 2008. One of the main acknowledgments made by the European Commission in this report, was the fact that the terminology "smokeless tobacco" was stated to include considerable variations in form, manufacture procedures and contents, including various toxicants, such as nicotine and Tobacco specific nitrosamines. Thus, associated health effects would also have to be acknowledged to differentiate considerably. In other words, this acknowledgment finally recognised Swedish Snus as the unique tobacco product it is, and as such the report reached a number of significant conclusions in regards to its health effects and implications:

- **Snus use is not a risk factor for oral cancer.**
- **The availability of snus has had a positive impact on public health in Sweden.**
- **Snus use is not a significant predictor of future smoking among users.**
- **Snus use may help some smokers quit cigarette smoking.**

Within the report there were also five scientific opinions/questions to be addressed, of which the first one investigated "*Adverse health effects of smokeless tobacco products*".

With respect to snus, most of the data originated from studies in Sweden and Norway. The report acknowledged that snus use is in the order of 90% less harmful than smoking. Based on the current scientific evidences, it furthermore concluded that snus use:

- **Does not increase the risk of oral cancer.**
- **Does not increase the risk of lung cancer.**
- **Does not increase the risk of cancers of the Head and Neck.**
- **May cause temporary localized (non-cancerous) lesions in the mouth.**

Based on two Scandinavian studies, the report did however conclude that snus use **increases the risk of pancreatic cancer** with a 1.6 to 2-fold increased risk among Snus users compared to none users. These studies later received major criticism and were said to suffer from methodological weaknesses. Likewise, the conclusion that snus use **increases the risk of death after heart attack** proved to mainly rely a single study, the *Swedish construction worker cohort*, in which other factors than Snus, impossible to rule out, may have contributed significantly to the observation. Later scientific research and reviews of the reports not only disputed these conclusions, but dismissed them. Although SCENIHR in the report admitted that the overall benefits of Swedish Snus clearly outweighs the risks of smoking, the *Swedish National Board of Health*, had already in its 'Public Health Report 2005' acknowledged these facts as they stated that "*...the net effect of using snus as a means of giving up smoking may be positive, since smoking is much more hazardous to health than snus use.*"

This aspect of harm reduction potential, in comparison to smoked tobacco products, was never addressed in the abstract or executive summary by SCENIHR, even if they in the main body of the report stated that, for Snus users "*...the pragmatic argument is that if in practice the alternative for them would be to smoke tobacco, then if snus use is less hazardous than tobacco smoking, substitution of snus for smoking may be beneficial to individual and public health...*"^{vii}

The second question addressed was regarding "*the addiction potential of smokeless tobacco products*". As the SCENIHR report concluded, that all smokeless tobacco products contains nicotine and they should thus all be deemed to have the potential of generating dependence or addiction among users. However, the report also concludes that a lower level of nicotine dependency could be shown among users of Swedish Snus. This is due to the fact that the speed of nicotine absorption of Swedish Snus is much slower than other smokeless tobacco products. The speed of nicotine delivery into the body is considered an important factor in rendering the degree of nicotine dependence. Faster delivery thus generates a higher potential for dependence.

The third question compared "*use of smokeless tobacco as a smoking cessation aid to pharmaceutical nicotine replacement products*". The report acknowledged that, according to official statistics, snus is generally preferred over medicinal nicotine products as a smoking cessation aid in both Sweden and Norway. It also notes that no controlled clinical trials have been conducted "*to assess the relative efficacious of snus and medicinal nicotine in successful smoking cessation*".

The report furthermore concludes, in relation to question four, that the use of Snus in Sweden is not significant as a "*subsequent initiation of smoking*" for neither young nor adult users.

As far as the last of the five questions to be addressed in the report as scientific opinion is concerned, it is in effect disqualified in it's own terms and impossible to answer under the current ban of Swedish Snus within the EU. With regards to Swedish Snus, an "*Extrapolation of the information on the patterns of smokeless tobacco use, smoking cessation and initiation from countries where oral tobacco is available to EU-countries where oral tobacco is not available.*" would only be possible to answer properly if sales where legalized and the subsequent patterns of use were monitored over time. The SCENIHR report consequently also concludes that it is not possible to extrapolate the use of Swedish Snus to new markets "*due to societal and cultural differences*". However, the report do not refer to any evidence that would suggest that the impact on smoking rates in new markets would be different to those in Sweden. Thus, they neglect to state the obvious, that it nevertheless is quite possible that the positive effects of Swedish Snus use very well might be similar in other countries over time. Perhaps not in a proportionate magnitude, but at least in staking out a new direction in the pattern of tobacco use.

By currently not considering a full revision to the EU tobacco products directive in relation to Swedish Snus, it may be argued that European citizens deliberately are being denied the right to use a much less harmful tobacco product, which in turn may encourage the less use of smoked tobacco products, which is the directives main original focus.

In its summary of the review of the SCENIHR report, in particular - *European Smokeless Tobacco Council* - claims that "*the current EU ban on oral smokeless tobacco products, such as Swedish snus, is scientifically unsupportable and inappropriate*", based on the fact that the ban was founded on the firm belief that the use of all oral tobacco products constituted a significant risk factor for cancer in general and oral cancer in particular, and that it were supposedly particularly

appealing to youth. In accordance with its review, ESTOC states that the SCENIHR report shows no scientific evidence, especially not with regard to the use of Swedish Snus, to further support either of these claims and that the ban is unjustified and should be removed. They also suggests that a revised regulatory framework, better addressing consumer protection, with food regulation as its guiding principle and based on accurate scientific evidence, should take its place.

HEALTH EFFECTS OF SWEDISH SNUS : ESTOC

On behalf of the *European Smokeless Tobacco Council* (ESTOC), the independent scientific consulting firm *The Weinberg Group INC.* critically reviewed available research information and scientific data. As an attempt to scientifically summarize and verify what is actually known about Swedish Snus in regards to health effects and public health implications, they prepared a series of reports, specifically examining such health issues and topics commonly related to the use of tobacco products. The results mainly stated that **no conclusive evidence could be found, or no firm conclusions could be drawn from the available data, connecting the use of Swedish Snus as a cause for:**

- **Oral Cancer.**
- **Pancreatic Cancer.**
- **Cardiovascular disease.**
- **Stroke.**
- **Diabetes.**
- **Stomach Cancer.**
- **Esophageal Cancer.**
- **Lung Cancer.**
- **Kidney and Bladder Cancer.**
- **Gastrointestinal effects** (Ulcer, Chron's disease, Ulcerative Colitis, Gallstones.)
- **Oral effects** (Cavities, Tooth wear, Tooth loss.)
- **Periodontal effects** (Gingivitis or Gingival recession.)

The only health effects that were found and that could be related to the use of Swedish Snus was the association of a harmless mucosal lesion, that goes away once the use of Snus is stopped. There were also limited evidence that Swedish Snus may occasionally be associated with weight loss or have an effect in limiting weight gain often related to the stopping of smoking.

- i Tobacco-Specific Nitrosamines is one of the most important groups of **carcinogens** in **tobacco** products.
- ii Please visit the IARC database for further reference: <http://www.iarc.fr>
- iii Projections states an increase to 8 million deaths due to smoking related deceases worldwide within a decade.
- iv WHO Fact sheet N°339, Updated July 2015, 6 July 2015.
- v Forbes, April 18, 2005. Financial Times, March 5, October 6, 2007/January 4, 2008. Wall Street Journal, September 16, 2006. The New York Times, April 6, 2004/October 3, 2007. The Times, May 14, 2007. The Observer, February 19, 2006. USA Today, May 10, 2007. Herald Tribune, May 27, May 30, 2005/August 9, 2006. Reuters (UK) October 5, 2007. Frankfurter Allgemeine, March 11, 2008. El Mundo, June 1, 2005/April 10, 2006/February 29, 2008. La Repubblica, June 12, 2007. Metro France, April 9, 2008. Der Tagespiegel, July 15, 2007. Il Giornale, February 26, 2006. Ragion Politica, September 25, 2003. Et al.
- vi For further reference, see section XXXXX, Health Effects and Studies of Swedish Snus.
- vii 2008 European Union SCENIHR Report, Page 112