Health Risks of Smoking Compared to Swedish Snus
by
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• To date smokers have had little guidance on how to give up cigarettes. But public-health officials in growing numbers are suggesting that a pinch of smokeless tobacco between the lip and gum can provide a smoker with nicotine – addictive agent in tobacco – while posing a substantially reduced health risk compared with smoking.

• Some health officials worry that promoting snuff as a cigarette cessation aid would induce nonsmokers to take up smokeless tobacco, which can be as addictive as cigarettes. And smokeless tobacco isn’t without risks ---WSJ 3/27/07
Steps in our Analysis

• Assemble all studies that examined effects of both cigarette smoking and snus usage
• Extract raw data from studies identified and compute odds ratios and confidence limits
• Where appropriate, group data and perform meta-analyses
• Report and compare results
Studies of Smoking and Snus

Cigarette literature

Snus literature

6 studies contained risk data on both exposures, using a common control group
Number of Studies in which Snus or Cigarettes were Associated with Selected Adverse Health Effects

<table>
<thead>
<tr>
<th>Health Endpoint</th>
<th>#Studies</th>
<th>#Positive Snus</th>
<th>#Positive Cigarette</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Oral cancer</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gastro-intestinal</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total mortality</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The positive snus cardiovascular and total mortality study were the same study: Bolinder et al (1994)
Summary of Findings

- In Europe, over the past few decades there has been a dramatic increase in the usage of snus.
- Only six studies existed that considered the health effects of both snus usage and cigarette smoking.
- Only one of these reported significant effects associated with snus usage, but many reported cigarette effects.
- Our findings are compatible with results reported by others who have studied snus health effects.
- It is incorrect to assume that effects associated with snus and other smokeless tobacco products are comparable.
Recommendations

• With the increased usage of snus as a substitute for cigarettes, it is important to more completely examine the effects of snus and other smokeless tobacco products.

• A comprehensive and cost-effective strategy to accomplish this goal would entail analyzing national data on this issue (such as, the American Cancer Society data).