

What are tobacco product ingredients?

Tobacco product ingredients are the substances, components, and raw materials that when put together make up a tobacco product ready to be used. The ingredients of tobacco products are:

- the processed tobacco leaf;
- the material that holds together the processed tobacco leaf and usually gives shape to the tobacco product, such as paper and wrappers, and the filter if the product has one;
- the processing aids and residual substances following storage and processing of the tobacco leaf;
- the substances that migrate from the packaging material into the product; and
- the substances intentionally added to increase the attractiveness of the product to the consumer. Among these are substances that enhance the palatability, the product's colour and physical appearance as well as substances which may create the false impression that tobacco products have health benefits or increase energy and vitality.

Ingredients, with the exception of water, that are added during the course of manufacture of a tobacco product, including preservatives, humectants, flavours, and processing aids are called additives.

What are some of the benefits derived from regulating tobacco product ingredients?

Ingredients in tobacco products may increase their attractiveness, addictiveness, and toxicity. The use of ingredients to do so is contrary to the objective of the WHO Framework Convention on Tobacco Control, namely to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke. Therefore, regulating ingredients in tobacco products is essential to an effective national tobacco control programme as part of the regulation of the contents and emissions of tobacco products and the disclosure of this information to the appropriate governmental bodies and to the public.

Why are tobacco ingredients of public health concern?

Ingredients in tobacco products may affect public health in several ways such as increasing the attractiveness, addictiveness, and toxicity of a well-established harmful drug.

Addictiveness

In addition to increasing attractiveness, many ingredients are intentionally manipulated or added to optimize addictive potential. Of great concern is the fact that modern cigarettes have been extensively engineered to be delivery devices for nicotine and other ingredients. In doing so, some ingredients such as ammonia compounds have been used to increase free-base nicotine and addiction potential in addition to masking the harsh taste of products.

The addictive properties may also be indirectly enhanced by the inclusion of ingredients such as eugenol, menthol and cocoa. Ingredients such as eugenol and menthol numb the throat so the smoker cannot feel the smoke's aggravating effects. Because of its local anaesthetic properties, menthol allows a deeper inhalation of the irritating tobacco smoke and as such, more smoke to be inhaled and deeper puffs to be attained, resulting in a higher nicotine dose per puff. With products like menthol-flavoured cigarettes, individuals can inhale more tobacco smoke while experiencing less of the harsh taste. Therefore, along with the added fresh taste, menthol has significant physiological effects on breathing. Similarly, additives such as cocoa may be used to dilate the airways allowing the smoke an easier and deeper passage into the lungs, exposing the body to more nicotine and higher levels of tar.

Toxicity

Another reason for concern is that some ingredients may be toxic when used alone or in combination with other substances found in tobacco products. Examples include ammonia, caffeine, and taurine. In some cases, colouring agents added for aesthetic purposes may affect the overall toxicity of the resulting product. In addition, some ingredients have the ability to change the physical properties of tobacco smoke, including particle size of the emitting smoke. Particle size affects absorption levels of nicotine and other tobacco constituents in the lungs which can in turn increase blood nicotine levels. Furthermore, when ingredients are burned, new products of combustion are formed and these may be toxic or pharmacologically active. A key example is acetaldehyde, a known carcinogen produced from the burning of sugars added as sweeteners. Acetaldehyde works synergistically with nicotine to enhance the addictive potential of these products.

What can countries do to regulate and monitor tobacco product ingredients?

Effective tobacco product regulation may contribute to reducing tobacco-attributable disease and premature death by reducing the attractiveness of tobacco products, reducing their addictiveness or reducing their overall toxicity. So far, Parties to the WHO FCTC have adopted the partial guidelines for implementation of some of the measures contemplated in Articles 9 and 10 of the Convention.



These guidelines encourage Parties to reduce the attractiveness of tobacco products by prohibiting the use of ingredients in such products associated with increasing their palatability and appeal or which are associated with energy and vitality. To reduce attractiveness, Parties are also urged to prohibit or restrict ingredients used to increase palatability and reduce the harshness of tobacco smoke, that may create the impression that they have a health benefit, and that add colour to tobacco products, except when used for tax-related markings or for health warnings and messages. In addition, measures to reduce attractiveness should include those mentioned in Articles 11 and 13 of the WHO FCTC and its guidelines relating to packaging and labeling of tobacco products and banning tobacco advertising, promotion, and sponsorship.

The guidelines also indicate that Parties should require that manufacturers and importers of tobacco products disclose to governmental authorities information on the ingredients used in the manufacture of their tobacco products with an indication of the purpose of the ingredient. This disclosure of information should be done at specified intervals by product type and for each brand within a brand family.

Despite strong opposition by the tobacco industry, countries are making progress in limiting the use and exploitation of tobacco ingredients. For example, in 2012 Brazil became the first country to ban menthol and almost all other additives in tobacco products. Similarly, Canada has recently taken steps to curb the widespread use of additives and other flavouring ingredients on their domestic tobacco market. In 2010, most flavouring agents along with other specified ingredients were no longer permitted for use within Canada's borders. The European Union has revised its Tobacco Products Directive: under the new Directive, cigarettes and roll-your-own tobacco with characterizing flavours are prohibited. Certain additives, such as vitamins, caffeine, etc. are also prohibited. The Directive makes it possible to prohibit products with additives that increase toxicity or addictive effects. In addition, electronic reporting by the tobacco industry on ingredients has been substantially reinforced, in particular in regard to certain additives identified on a priority list.



Summary

Prohibiting or restricting the use of ingredients that increase tobacco product attractiveness can contribute to reducing the prevalence of tobacco use and dependence among new and continuing tobacco users with a view to reducing disease, suffering and death from tobacco. Immediate adoption of the measures detailed in the Partial guidelines for implementation of Articles 9 and 10 of the WHO FCTC is a positive and tangible step, which countries should take.

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November 2014

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