

Tobacco additives: The increased health risk

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Tobacco additives: The increased health risk

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International consensus: Ban on or regulation of all tobacco additives



**WHO Framework
Convention on
Tobacco Control
(FCTC)
Articles 9 and 10**

**Partial guidelines
for
implementation of
Articles 9 and 10
of the WHO FCTC**



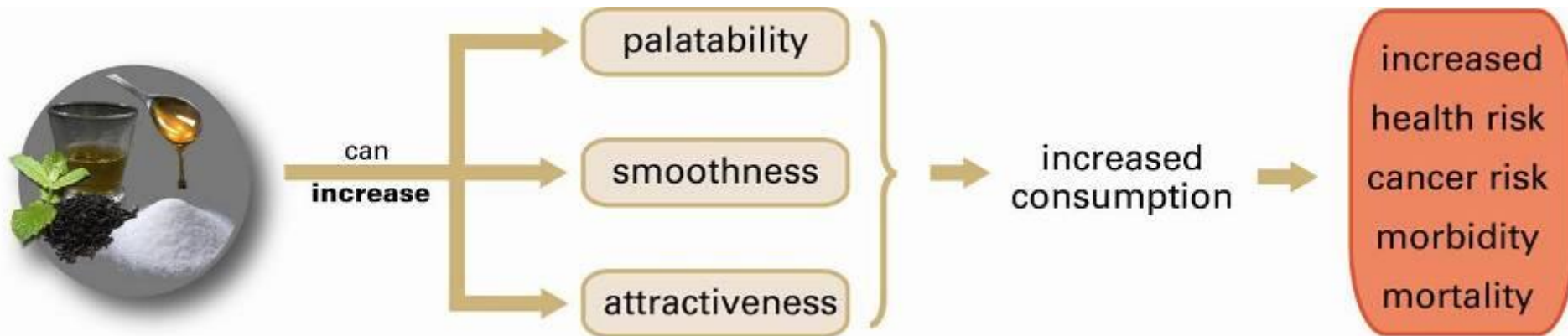
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More than 600 additives are used in cigarette production

„Ingredients are indeed used to make cigarettes more palatable, and to reduce harshness and irritation.“

(House of Commons Health Committee, Memorandum by BAT
“The Tobacco Industry and the Health Risks of Smoking“, 1999)





Sugars



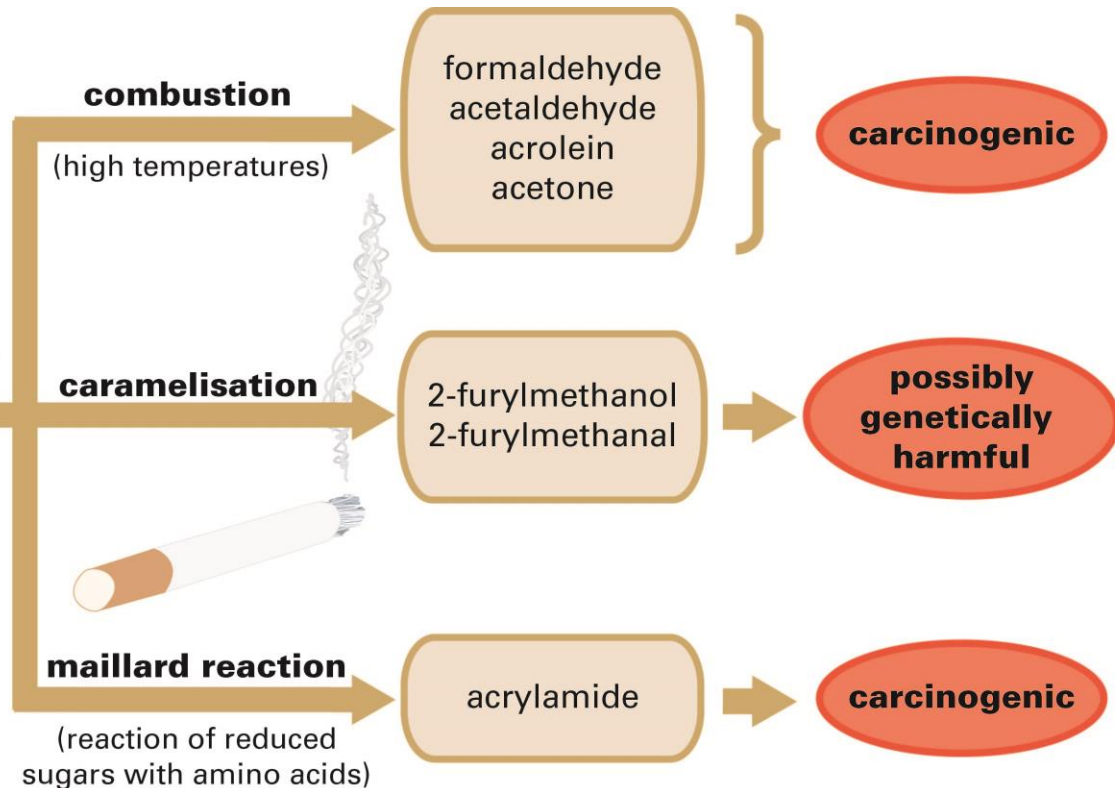
sugar

(& additives, which contain sugar)

for example:

- glucose
- fructose
- saccharose
- molasses
- fruit juices
- honey

- improves taste
- decreases harshness
- increases palatability
- binder
- humectant





Menthol



MENTHOL

Cooling effect

Pain-relieving and slightly numbing effect

Desensitization to nicotine response, tolerance and longer exposure to nicotine

Inhibition of nicotine metabolism*

Increased absorption of tobacco smoke components into the lung

Inhibition of breakdown of carcinogenic substances*

Masks the irritating effect of tobacco smoke and makes it easier to inhale

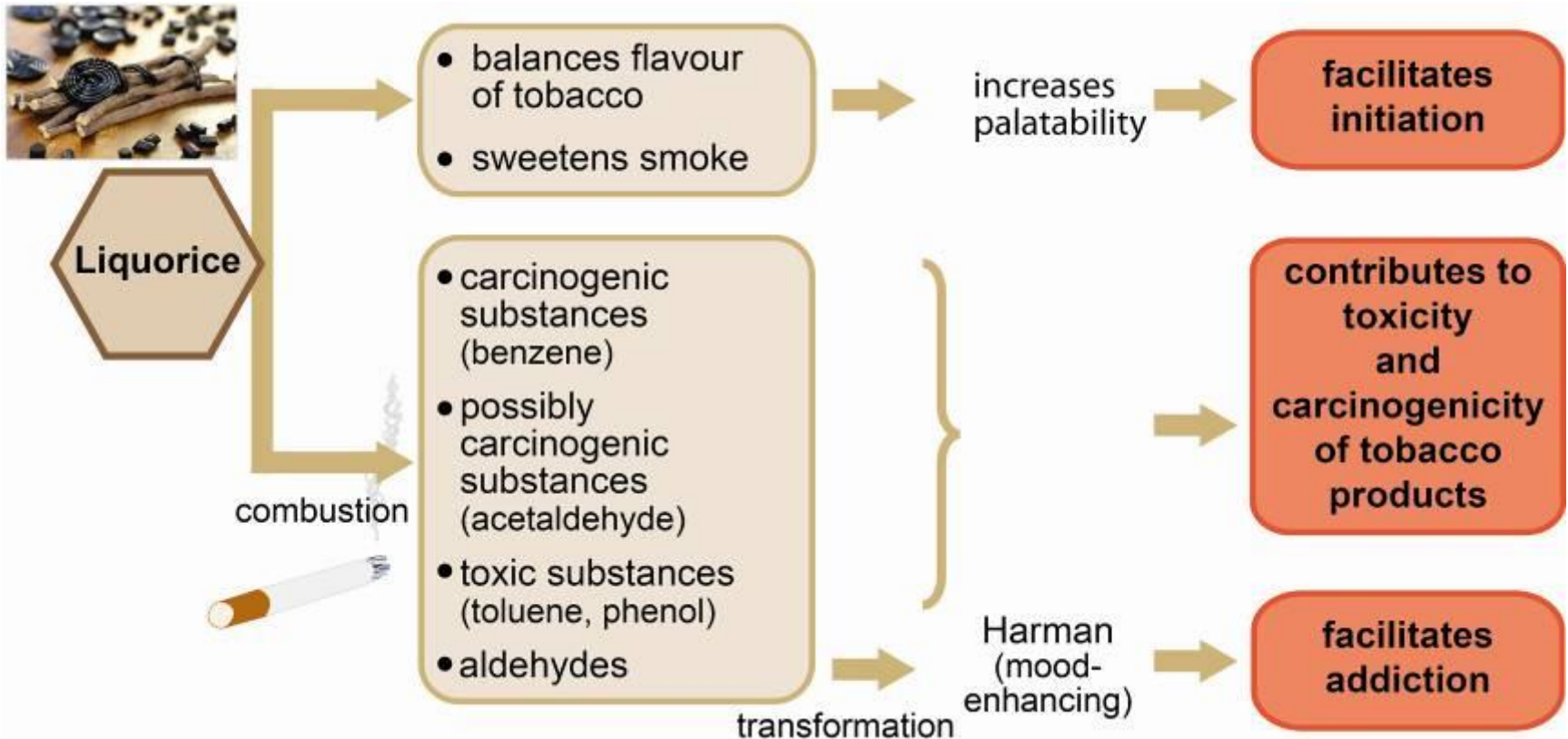
Increases potential for addiction

Increases risk of cancer

*possible



Liquorice





Additives without flavour

- binders
(guar gum: combustion → carcinogenic substances)
- humectants (moisturing agents)
(glycerol, sugar: combustion → carcinogenic substances)
- colouring agents
(azo dyes: tartrazine (yellow): carcinogenic)





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Tobacco products with characterising flavours



Only a small market!



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Big market: Mix of many additives

- flavours in very low amounts
„Ingredients are indeed used to make cigarettes more palatable, and to reduce harshness and irritation.“ (BAT, 1999)
- facilitation of initiation and maintenance of smoking
- interaction and synergistic effects of additives
mixture of small amounts of several additives can have similar effects as bigger amounts of single additives
- many additives produce carcinogenic substances on pyrolysis:
- no harmless threshold levels for additives





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New technologies

- enhance attractiveness
- capsule can be filled with any additive



Excerpts from US
patent No. 7878962
(Karles et al., Philip
Morris)

Suitable flavors or flavorings include, but are not limited to, menthol, mint, such as peppermint and spearmint, chocolate, licorice, citrus and other fruit flavors, gamma octalactone, vanillin, ethyl vanillin, breath freshener flavors, spice flavors such as cinnamon, methyl salicylate, linalool, bergamot oil, geranium oil, lemon oil, ginger oil, and tobacco flavor. Other suitable flavors may include flavor compounds selected from the group consisting of an acid, an alcohol, an ester, an aldehyde, a ketone, a pyrazine, combinations or blends thereof and the like. Suitable flavor compounds may be selected, for



What should be done?

Ban of all additives that may enhance the palatability, smoothness and attractiveness of tobacco products

Why?

- to protect youth from initiation
- to support smokers to quit smoking



What should be done?

**Ban of all additives that are carcinogenic
in unburnt or burnt form**

Why?

- to protect consumers
- to reduce morbidity and mortality



What should **NOT** be done?

Set maximum levels for any additives

Why?

- no reliable methods to define a threshold level for distinctive taste
- many interactions between additives with synergistic effects on palatability, smoothness and inhalation



Summary

- ban is needed on additives that enhance palatability, smoothness and attractiveness of tobacco products
- ban is needed on additives that are carcinogenic in unburnt or burnt form
- manufacturers and importers must prove that any additive they want to use is harmless