Addressing salt intakes in Europe

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High consumption of sodium, one of the components in table salt, is a well-established risk factor for high blood pressure and cardiovascular diseases. Reducing intakes to recommended levels would benefit public health and therefore efforts to achieve this are being made by national authorities, non-governmental organisations and food industry.

The World Health Organization (WHO) recommends that adults consume no more than 5 g salt per person per day, yet actual consumption in Europe today is substantially higher at 8-12 g.[1] The health benefits that could be achieved by lowering the salt consumption have given rise to salt reduction initiatives in many countries of the European Union (EU), and in 2008 the EU Framework for National Salt Reduction initiatives was adopted.[2] The idea of the EU framework is to support ongoing national initiatives through coordinating actions and disseminating useful information while striving towards a common goal.[3]

Since major sources of salt in our diet are processed and restaurant foods, the food industry plays a key role in salt intake reduction. This has been recognised by organisations leading national salt reduction programmes, and collaboration with the food industry is often a key component in those programmes. In addition, many food producers and retailers, on their own initiative, address high salt consumption by product reformulation, but also through awareness-raising campaigns and labelling initiatives.[1]

Lowering salt content in foods

Salt is added to foods for its taste, but also to enhance other flavours, to preserve foods by inhibiting food spoilage micro-organisms and to achieve certain textures. Thus, reformulation is not a task of simply lowering the salt content to the desired level. The technological challenge is to reduce salt levels while maintaining taste and other product quality attributes, including safety.

One approach is to gradually lower the amounts of salt in a food product. We get used to a certain level of saltiness and tend to find the food bland if salt content is reduced drastically in one step. However, if the salt content of a product is reduced in small steps we do not necessarily notice any difference, and we gradually get used to a less salty taste. Reductions of 20-25% are usually possible without serious taste problems. Stepwise salt reduction is most effective if all manufacturers within one food category agree on a strategy and carry it out simultaneously.[1,2]

To a certain extent, regular table salt (sodium chloride) may also be replaced by other mineral salts which do not contain sodium, e.g. potassium chloride. However, the saltiness of other mineral salts is not as intense as that of regular salt and in addition they may give a bitter or metallic flavour. One way to get around this problem is to use additional compounds that mask the bitterness. Alternatively, the flavour enhancing effects of salt may be compensated for by adding more herbs, aromas and spices to the product.

Along with stepwise salt reduction and replacement, new methods to reduce salt in foods are being

developed. For example, ingredients that may enhance the sensitivity of the salt receptors on the tongue, which would increase the perceived saltiness of a food, are being researched. Another approach that is explored by food manufacturers is salt distribution in foods, i.e. reducing salt levels in certain fractions or components of a food may allow an overall lowering of the salt content without negative impact on the taste.[1]

Information and labelling

Besides food reformulation, salt reduction programmes in many cases aim at raising public awareness of the potential detrimental effects to health of high sodium intakes as well as providing tips on how to lower sodium intakes. Labelling systems often are in place to inform consumers on sodium or salt levels in products. Although in the EU nutrition labelling is voluntary (unless nutrition or health claims are made), certain national regulatory exceptions exist. For example, in Finland labelling is mandatory for important sources of salt such as meat products, bread and ready meals. If such foods exceed certain levels of salt this has to be indicated on the packaging.[4]

Salt reduction programmes - are they effective?

The majority of national initiatives to reduce salt intakes are relatively recent and therefore their impact on salt consumption often remains unclear. However, in Finland, where a salt reduction programme has been in place since 1975, the average salt intake among adult Finns has declined from then 12 g per day to 9.3 g per day in men and 6.8 g per day in women.[5] Another example is the UK where a salt reduction programme was introduced in 2003.[6] At that time the average salt intake levels were 9.5 g per day, whereas in 2008 it was 8.6 g per day.

These results indicate that reductions in salt consumption take time, but it has been estimated that even modest reductions could lead to substantially less cardiovascular events and thus improve public health.[7]

For more information

Food Today n°66. The role of sodium in sports drinks.
Food Today n°56. Salt, potassium and the control of blood pressure.
Food Today n°25. A Grain of Salt and a Grain of Sense?

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