SALT CONSUMPTION, HEALTH IMPLICATIONS AND TECHNOLOGICAL CHALLENGES OF SODIUM REDUCTION IN FOODS

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Abstract

Sodium is an essential nutrient, but in most populations its intake, mainly as sodium chloride, is about twice the World Health Organization recommendation of less than 5 g salt/day, which contributes to hypertension and cardiovascular disease. This review summarises the health effects of excessive salt intake, the main dietary sources of sodium, the functions of salt in bread, meat products and cheese, and the strategies available for reducing it. Because salt contributes to flavour, texture, water binding and microbial safety, its reduction must be adapted to each product and validated for safety and shelf life. Gradual reduction, partial replacement with potassium salts (up to about 30%), flavour enhancers and changes in salt crystal size or distribution can lower sodium by 25 - 50% without loss of acceptability. Reformulation is most effective when combined with clear labelling, consumer education and public policies.

Key words*: hypertension, reformulation, flavour enhancers, microbial safety, consumer education*