SALT & SODIUM

European Snacks Association

What is salt? What is sodium?

Salt, otherwise known as sodium chloride (NaCl), is a naturally occurring mineral that can be found in seawater, in underground deposits and on the surface of the earth.

Sodium, which makes up approximately 40% of sodium chloride, occurs in all plant and animal foods. For example, 100g raw mature spinach will typically contain 140mg sodium.[1]

Sodium can also be added to foods in a variety of different forms, including as salt, and can be used as a preservative, to enhance flavours, or even to improve texture.

For the purposes of European food labelling salt is legally defined under Regulation (EU) No 1169/2011[2] to mean the salt equivalent content, and it is calculated using the formula: salt = sodium × 2.5.

Sodium and health

Sodium is an essential mineral required by the body and has important physiological functions. For example, it helps to regulate fluid and mineral balance in and out of cells, and to maintain normal blood pressure. It also has a role in transmitting nerve impulses that control the body.[3]

However, there is some evidence to associate high sodium intakes through food and drink with high blood pressure (hypertension). Hypertension is a concern because it is one the major causes of strokes and cerebrovascular disease, and of ischaemic heart disease, which are the biggest causes of death in middle and high-income countries.[4] Note that many other factors, such as stress, excess alcohol, excess weight, smoking and high cholesterol values, are also associated with hypertension.

In light of these concerns the European Parliament, European Commission and European Council have agreed a reference intake for an adult of 6g of salt per day. This is the equivalent of one rounded teaspoon.

Savoury snacks and salt

In some savoury snacks, salt is applied to the product solely for flavour purposes (e.g. ready-salted crisps). However, in most products, salt/sodium is present not only to provide flavour, but also to enhance and extend the other ingredients in the applied seasoning. Salt acts as a carrier to promote the uniform distribution of other ingredients (such as other flavours and colours) on the surface of the snacks, and can also be used to moderate the intensity of sharp or acid tastes, coming for example from vinegar flavour components.

Salt is also used in the base recipe of some extruded snacks and pelleted products where it has a key role in regulating product expansion (where salt acts as a 'nucleation' point for steam, used in the formation of air bubbles) and in developing the desired texture and mouthfeel.

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[1] McCance and Widdowson's 'composition of foods integrated dataset' (updated 25 March 2019), https://www.gov.uk/government/publications/composition-of-foods-integrated-dataset-cofid

[2] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:304:0018:0063:EN:PDF

[3] http://www.nutrition.org.uk/nutritionscience/nutrients/minerals-and-trace-elements?start=6

[4] Guideline: Sodium intake for adults and children http://who.int/mediacentre/factsheets/fs310/en/

Contribution to diet

There is very wide range of savoury snack products available across Europe, including those with 'no added sodium/salt' and those with 'low sodium/salt'. However, even an average 30g serving of ready-salted potato crisps will only contain around 0.5 g of salt (= 0.20 g of sodium). This is approximately 7% of the reference intake of an average adult.

Owing to the fact that daily consumption of savoury snacks is actually relatively low, they typically make only a very small contribution to the average total dietary intakes of salt and sodium. For example, within the UK, the biggest market in Europe, savoury snacks contribute less than 2%[5] of the dietary intake of salt for adults, and - contrary to popular opinion - they are not one of the top ten contributors to overall dietary salt intake[6].

Even in the Netherlands, which has the largest per capita consumption of savoury snacks in the European Union, savoury snacks and nuts contribute less than 4% of the total dietary intake of salt/sodium[7] for adults.

European activity on salt reduction

Savoury snack manufacturers have responded quickly and comprehensively to changing consumer preferences with respect to salt. Substantial reformulation has taken place across core product ranges over the past two decades. In addition, new products offering a range of lower-salt and no-salt choices have arrived on supermarket shelves.

Across Europe, the savoury snacks industry has worked closely with public authorities to reformulate existing products, and to better understand and overcome the technological barriers to the reduction of salt in certain product types.

To help the reformulation effort across the European food industry the European Commission has set up a High-Level Group composed of Member States experts, which has looked at existing initiatives and has made recommendations about how these can be replicated across the EU to help improve diets.

ESA members remain committed to working with all relevant stakeholders to help identify where reduction in salt within our products is both safe and technically feasible, and to ensure that reformulated products, in terms of taste, texture and appearance, continue to meet the high expectations of the consumer.

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[5] National Diet and Nutrition Survey (NDNS) Rolling programme. Years 1-3 data combined (2008/9 - 2016/17), Public Health England, 23 January 2019.
https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9

[6] According to NDNS data for men (aged 18-65) savoury snacks contributed just 2% to dietary intakes (Joint 11th alongside Breakfast cereals; Biscuits; Buns, cakes, pastries and fruit pies; and eggs dishes)

[7] Figures based on the most recent Dutch National Food Consumption Survey (DNFCS), available online: http://www.rivm.nl/en/Topics/Topics/D/Dutch_National_Food_Consumption_Survey