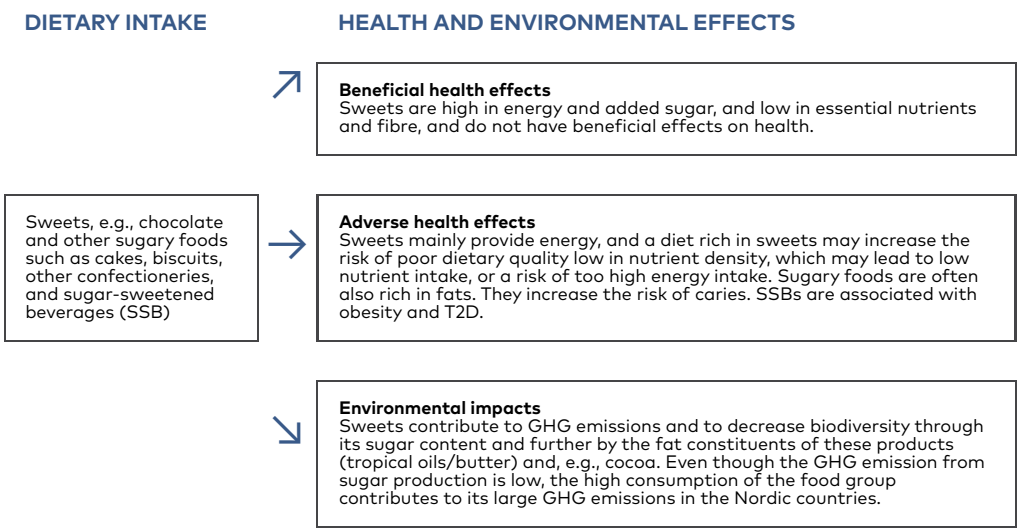
Sweets



Science advice: Limited consumption of sweets and other sugary foods is recommended.

For more information about the health effects, please refer to the background paper by Henna Vepsäläinen and Emily Sonestedt (2023). For more information about the environmental impacts, please refer to the following background papers (Benton et al., 2024; Harwatt et al., 2024; Meltzer et al., 2024; Trolle et al., 2024).

Dietary sources and intake. Sweets, chocolate and other sugary foods contains high amount of energy and added sugar, and low amount of essential nutrients and fibre. The average intake of sweets and confectioneries ranges from approximately 40 to 90 g/d (Lemming & Pitsi, 2022).

Health effects. Four qSR is available on the role of foods high in added/free sugar and health outcomes (EFSA, 2022; Mayer-Davis et al., 2020b; Rousham et al., 2022; WHO, 2015). The EFSA report found a positive and causal relationship with risk of chronic metabolic diseases such as obesity and dyslipidemia (EFSA, 2022). A qSR from WHO (2015) found a moderate level of evidence for an effect of change in free sugars intake on change in body weight in adults and BMI in children. The report from the U.S. Dietary

Guidelines Advisory Commitee (Mayer-Davis et al., 2020b), found limited evidence regarding associations between added sugars and cardiovascular disease.

Sweets contribute mainly to energy intake by their sugar and fat content. A high intake of sweets may increase the risk of poor dietary quality and low nutrient density (EFSA, 2022; Vepsäläinen & Sonestedt, 2023). Consumption of sugars is associated with increased risk of dental caries (Vepsäläinen & Sonestedt, 2023). It has been estimated that overconsumption of energy-dense foods contributes to half of the adult population and one in seven children being overweight or having obesity (Meltzer et al., 2024). For health effects on SSB, please refer to the summary on beverages in this report and the background review on beverages by Sonestedt and Lukic (2023).

Environmental impacts. Because of the high consumption of discretionary foods (e.g., sugar, sweets, and beverages) in the Nordic countries, they have a large contribution to GHG emissions (Trolle et al., 2024), even though the emissions from sugar production is low (Benton et al., 2024; Harwatt et al., 2024; Meltzer et al., 2024; Trolle et al., 2024). This group of foods also includes ingredients such as fats and oils (see summary on *Fats and oils*) and cocoa, which have an impact on biodiversity (Harwatt et al., 2024).

Main data gaps. There is a lack of research on the role of sweets and confectionaries and risk of chronic diseases. There is a lack of comprehensive environmental impact assessment data on sweets and confectioneries.

Risk groups. Children and adolescents are risk groups for high intake of sweets, cakes and biscuits, as well as sugar-sweetened beverages (Hauner et al., 2012; SACN, 2015; WHO, 2015). People with relatively low energy requirements are at risk of low nutrient intake if their diet is rich of sweets and confectioneries.

Science advice:

- **Based on health outcomes:** It is recommended to limit the intake of sweets, including other sugary foods such as cakes, biscuits, and other confectioneries, as well as SSB. This advice is based on the risk of chronic metabolic diseases such as obesity and dyslipidemia, and the lower quality of the diet (high in energy and low in nutrient density) and risk of caries.
- **Based on environmental impacts:** Even though the GHG emissions from sugar production are low, the high consumption of the food group contributes to the relatively high GHG emissions in the Nordic countries. Sweets also contribute to decreased biodiversity by land use change and intensive large-scale cropping systems with low diversity.
- **Overall science advice:** Limiting the consumption of sweets and other sugary foods is recommended.