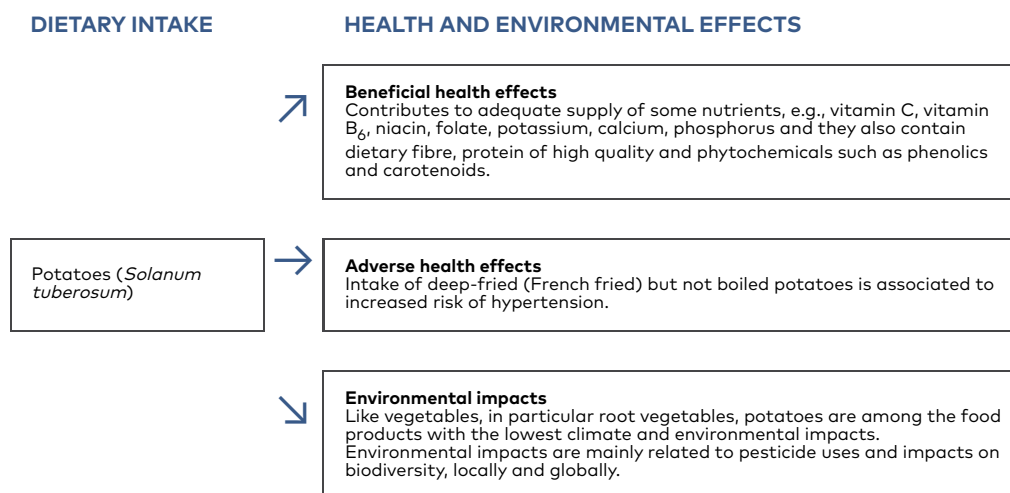


Potatoes



Science advice: Potatoes can be part of a healthy and environment-friendly diet. It is recommended that potatoes are included as a significant part of the regular dietary pattern in the Nordic and Baltic countries. Intake of boiled or baked potatoes and potatoes prepared with low content of fat and salt should be preferred. Intake of deep-fried potatoes should be limited.

For more information about the health effects, please refer to the background paper by Magdalena Rosell and Christine Deslisle (Rosell & Deslisle, 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).

Potatoes (*Solanum tuberosum*) is a commonly consumed staple food. Potatoes are not included in the vegetable food group, due to their high content of starch.

Dietary sources and intake. Potatoes contribute to the supply of e.g., vitamin C, vitamin B₆, niacin, folate, potassium and phosphorus. They also contain dietary fibre, protein of high quality and phytochemicals such as phenolics and carotenoids. However, potatoes are often consumed in processed forms with added fat and salt, such as French fried and mashed potatoes. The average

intake of potatoes ranges from approximately 50 to 130 g/d (Lemming & Pitsi, 2022).

Health effects. Two qSRs are available on the role of potatoes and health outcomes (SACN, 2015; Åkesson et al., 2013), in which no conclusions could be drawn on risk of CVD and T2D due to limited evidence. A qSR on dietary patterns indicated that French fried (deep-fried) potatoes and total potatoes as part of a dietary pattern high in red and processed meats and added sugars, were associated with an increased risk of colorectal cancer in adults; the evidence was graded as moderate (Boushey et al., 2020c).

As discussed in Rosell and Deslisle (2023), recent studies have reported no association between total intake of potatoes and cardiovascular disease and all-cause mortality. For cancer and type 2 diabetes, the evidence is inconclusive (Rosell & Deslisle, 2023).

Some studies have indicated that isoenergetic portions of potatoes, particularly boiled potatoes, generates a higher satiation compared with other starchy carbohydrates when consumed in isolation. An association between the intake of French fried (deep-fried) potatoes and an increased risk of hypertension has been reported in a dose-response analysis, while this was not seen for boiled/baked/mashed potatoes. The quality of evidence was considered moderate (Rosell & Deslisle, 2023).

Environmental impacts. Like vegetables and in particular root vegetables, potatoes are among the food products with the lowest climate and environmental impacts. Potatoes can be easily stored, with relatively small inputs and little waste (Harwatt et al., 2024). The difference in GHG emissions between organic and conventional production is relatively small (Harwatt et al., 2024). Organic production can result in significantly lower yields, leading to an increase in land usage. In conventional production fungicides are applied to control potato blight and increase the yield. In the diet, potatoes often replace grains with potentially larger environmental impacts (e.g., rice) and potatoes can be grown widely in the Nordic and Baltic regions (Meltzer et al., 2024; Trolle et al., 2024).

Main data gaps. There is a need for further research regarding the intake of potatoes, including different cooking methods, and health.

Risk groups. No risk groups identified.

Science advice:

- **Based on health outcomes:** Potatoes comprise a common staple food in the Nordic and Baltic countries, they provide vitamins, minerals, dietary fibre, protein, and phytochemicals, and may be part of a healthy diet. Intake of boiled or baked potatoes and potatoes prepared with low amounts of fat and salt should be preferred. Intake of deep-fried potatoes should be limited.
- **Based on environmental impacts:** The environmental impacts are among the lowest among food products, supporting potatoes as part of a plant based healthy diet.
- **Overall science advice:** Potatoes can be part of a healthy and environment-friendly diet. It is recommended that potatoes are included as a significant part of the regular dietary pattern in the Nordic and Baltic countries. Intake of boiled or baked potatoes and potatoes prepared with low amounts of fat and salt should be preferred. Intake of deep-fried potatoes should be limited.