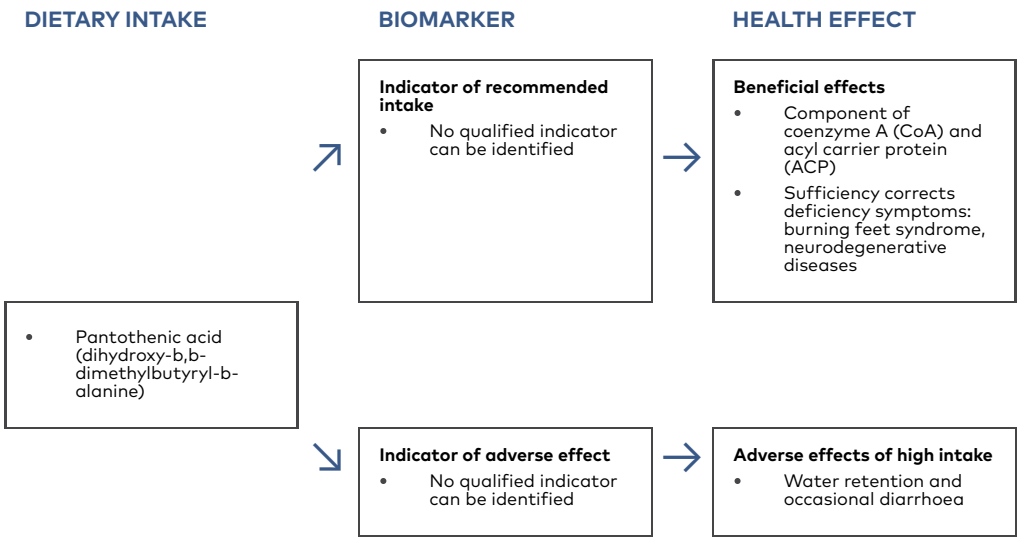
Pantothenic acid (vitamin B_5)



	Females	Males
Provisional AR (mg/d)	4	4
AI (mg/d)	5	5

For more information about the health effects, please refer to the background paper by Riitta Freese, Tonje Aarsland and Maja Bjørkevoll (Freese et al., 2023)

Dietary intake. Pantothenic acid, *dihydroxy-b,b-dimethylbutyryl-b-alanine*, is a water-soluble vitamin that belongs to the group of B vitamins (vitamin B_5).

Pantothenic acid is widely distributed in foods of both animal and vegetable origin, rich sources include organ meats, eggs, seafood, cheese, mushrooms, legumes, whole grains, vegetables and nuts. Pantothenic acid is not part of food composition tables in most Nordic and Baltic countries and information on intake is limited. In Latvia, the average intake of pantothenic acid was estimated to be 3.2-6.3 mg/d in adult men and women (EFSA, 2014c).

Main functions. As a component of coenzyme A (CoA) and acyl-carrier protein (ACP), pantothenic acid plays a central role in metabolism as a carrier of acyl groups. ACP is needed in fatty acid synthesis.

Indicator for recommended intake. No qualified indicator can be identified. Urinary pantothenic acid excretion reflects recent pantothenic acid intake and is considered the most reliable indicator of vitamin status (EFSA, 2014c; Freese et al., 2023).

Main data gaps. The concentration of pantothenic acid in foods should be analysed and incorporated into the Nordic and Baltic food composition tables to estimate dietary intakes and requirements.

Deficiency and risk groups. Deficiency is only likely to occur in conjunction with multiple nutrient deficiencies.

Dietary reference values. Population-level data on pantothenic acid biomarkers are lacking, and no cut-off values for pantothenic acid adequacy or insufficiency can be established. Based on dietary intake data with no sign of deficiency in the EU, AI has been set by EFSA (EFSA, 2014c), and was used as AI for NNR2023, and as the basis for provisional ARs. AI is set to 5 mg/day (females and males). Provisional AR is set to 4 mg/day (females and males). Not sufficient data to derive UL.