

“Prevention Of Malnutrition In Senior Subjects in the EU”

Research findings highlights

PROMISS' research brings findings relevant for the battle against malnutrition and that highlight the importance of increasing protein intake when growing older. Here is an overview of the most promising outcomes of PROMISS to date.

Protein intake and its sources

- Older adults with a poor appetite consumed less protein and dietary fibre, less solid foods, smaller portion sizes, less wholegrains, and less fruits and vegetables than older adults with a very good appetite. They also consumed more dairy foods, fats, oils, sweets and sodas. (van der Meij et al. 2017)
- Of those aged 85 years and older, 28% consumed less than the recommended protein intake target (0.8 g of protein per kg of adjusted body weight per day). This group ate less meat, more cereals and drank more non-alcoholic beverages than those who had an adequate protein intake. (Mendonça et al. 2018)

Protein intake and physical activity

- Lower protein intake may negatively affect muscle strength and physical performance in late life, and a combination of adequate protein intake and physical activity may be necessary to reduce the loss of muscle strength in the very old. (Granic et al. 2017)
- Dutch older adults spend on average 65% of their waking time sedentary. Older adults' sedentary times differ by age, sex, education and body mass index (BMI). The combination of high sedentary time and low physical exercise was associated with higher age, higher BMI, and slower walking speed compared to the combination of low sedentary time and high moderate to physical activity (van Ballegooijen et al., 2019)

Protein intake and other associations

- Higher protein intake, in particular 1.0 g/kg of adjusted body weight/day or more, was associated with better disability trajectories in the oldest adults. These findings will inform new dietary strategies to support active and healthy ageing. (Mendonca et al. 2018)
- At all eating occasions, Dutch community-dwelling older adults with a protein intake <0.8 g/kg of adjusted body weight/day ate less protein (and relative to their energy intake) and a lower proportion of animal protein, compared to those with a high protein intake. These differences were greatest at lunch. Major food sources of protein in both groups were dairy, meat and cereals. Following a diet, being obese and not drinking alcohol were identified as general characteristics of older adults with a lower protein intake. (Hengeveld et al 2019)
- A dietary pattern high in foods characteristic of a traditional British diet (butter, red meat, gravy and potato) was associated with an increased risk of sarcopenia even when overall protein intake was good. (Granic et al. 2019)
- The Pro⁵⁵⁺ Protein Screener was developed and can be used to validly screen for protein intake below 1.0 gram/kg body weight of protein per day in community-dwelling older adults. It is recommended that the screener should be validated in other countries. An online version can be found at www.proteinscreener.nl. (Wijnhoven et al. 2018)

- Higher protein intake may lower the risk of developing chronic protein-energy malnutrition in community-dwelling (i.e. living at home) older adults. (Hengeveld et al. 2018)
- Older adults with a lower protein intake seem to be at greater risk of developing mobility limitations over 6 years. (Houston et al. 2017)

Malnutrition and the intestinal microbiota

- This microbiota has been demonstrated to actively influence human energy balance. Thus, a disruption of the normal microbiota can contribute to the development of malnutrition.
- It was demonstrated that microbial composition differs between subjects with and without malnutrition.
- Literature review summarizes the pathways through which the intestinal microbiota might contribute to malnutrition, how the microbiota differs in over- and under nutrition, and how the microbiota could be manipulated in a way to promote a healthy nutritional state. (Fluitman et al. 2017)

For an overview of all peer-reviewed scientific studies, please consult this webpage:
<https://www.promiss-vu.eu/publications/scientific-articles/>

PROMISS contact details

Vera Hörmann, Research Project Officer, AGE Platform Europe
vera.hoermann@age-platform.eu

Ilenia Gheno, Research Project Manager, AGE Platform Europe
ilenia.gheno@age-platform.eu

Website: <https://www.promiss-vu.eu>

LinkedIn: www.linkedin.com/groups/8551229

Twitter @PROMISS_VU

Facebook: Promiss Research Project - Nutrition For Healthy Ageing

