New tool evaluates meal protein content

Assistant professor of Nutrition and Ageing Pol Grootswagers and his team have developed a tool to involve the elderly in the protein transition. ‘The Alpha tool helps them come up with meals that are complete in terms of the amino acid composition.’

For each ingredient of a particular meal, the tool shows the amount of each essential amino acid you get and what percentage that is of your daily protein requirement. ‘That soon shows you where there are deficiencies and where you could add protein sources,’ explains Grootswagers.
‘The diet of elderly people requires particular attention because muscle mass and bone density decline in old age,’ says Grootswagers. ‘That effect is exacerbated if they don’t eat enough protein. What is more, the amino acid profile of plant-based proteins is often less comprehensive than that of animal-based proteins. Plant-based proteins are not absorbed so well either. So you have to take all this into account if you want the elderly to have a plant-based diet and still stay healthy.’

The tool will help the elderly have a plant-based diet that is also healthy

In the Alpha tool, users (such as dieticians, researchers and chefs) can fill in the ingredients of a dish, including the quantities. ‘Then they can play around with the amounts, for example increasing the quantity of nuts, seeds or pulses, to get to the required 100 per cent. The tool works the other way round too: if a meal contributes more than 100 per cent to the amino acid requirement, you can cut down on ingredients. Reducing consumption is also a sustainable choice.’

Culinary

Eventually the Alpha tool will be able to make recommendations as well by using AI. ‘That feature is still being developed. We still have to teach the algorithm what are logical combinations from a culinary perspective. At present, the algorithm makes recommendations that are ideal in terms of protein quality but don’t make sense in culinary terms.’ DV