

## Key Nutrients and Hydration for Older People

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Many nutritional requirements do not differ between younger and older adults. However, some nutrients are particularly important for health as we age.



Credit: World Obesity Federation

### Energy

As we get older, we require less energy due to changes in our body composition; with decreasing muscle mass and increasing body fat<sup>1</sup>. We also tend to become less physically active with age, particularly if there are problems with mobility, which will also result in requiring less energy.

Although energy requirements may be lower, older people still need to make sure that they are eating enough to prevent malnutrition. Smaller meals and snacks throughout the day may be more suitable for those struggling to eat larger meals. If appetite is particularly poor, you can fortify meals e.g. adding in milk, butter or cheese to increase the calorie content. Smoothies or milkshakes can be a good source of energy and hydration, as you can sip on them throughout the day.

### Protein

Sarcopenia is the gradual loss of muscle mass and strength that occurs with age and has been associated with an increased risk of falls and fractures. Protein is important for growth and repair in the body, including muscles. It has been suggested that consuming a higher intake

of protein, combined with physical activity, may limit these declines in muscle mass and strength<sup>2</sup>. If you are struggling with poor appetite, you can try adding in meat, fish, beans or pulses into soups, stews or sauces to increase the protein content without making the size of the meal too large. Try to use a range of protein sources and limit the intakes of processed meats due to their associations with cancer<sup>3</sup>.

### Vitamin B12

Vitamin B12 is required for red blood cell formation and deficiency can lead to anaemia. As we age, vitamin B12 absorption becomes less efficient and certain medications can exacerbate this, making older adults more at risk of deficiency. As well as anaemia, causing fatigue and lethargy, vitamin B12 deficiency can progress to cause cognitive impairments such as memory loss and disorientation<sup>4</sup>. Good sources of vitamin B12 include meat, some fish (e.g. salmon, cod, haddock, trout, tuna), milk, cheese, eggs and fortified breakfast cereals. Nutritional yeast flakes are another good source of vitamin B12 (as well as the rest of the B vitamins and zinc) that you can add to soups, stews or sauces to boost the nutritional content of these meals.

### Vitamin D

Vitamin D is important for healthy bones as it aids calcium absorption. Vitamin D is mainly obtained naturally from direct sunlight on the skin. Vitamin D can be found in some foods including oily fish, red meat, liver, egg yolks and fortified foods such as some fat spreads or breakfast cereals. In the UK, everyone is recommended to take a 10µg daily supplement of vitamin D between October and March as there is not enough sunlight during this period. It is also recommended to take a daily supplement throughout the year for those who do not get outdoors often e.g. housebound individuals or those living in care homes<sup>5</sup>.

## Calcium

Calcium has many important roles in the body, including maintaining healthy bones and teeth and regulating muscle contractions. We lose bone mass as we age, so it is important to continue getting enough calcium (as well as vitamin D!) to try and reduce the risk of developing osteoporosis; a condition that weakens bones making them more likely to break. Milk, cheese and dairy products are rich in calcium. Other sources include fish where you can eat the bones (e.g. sardines or mackerel), some green leafy vegetables, tofu and bread or milk alternatives that have been fortified with calcium. A good way to increase calcium consumption is through fortifying meals with ingredients such as milk, butter or cheese. This will also increase the energy content, so if you are watching your weight but wanting to increase calcium, instead of fortifying meals with higher fat dairy products you can use lower fat options and add in other sources of calcium such as having broccoli or kale as a side to a meal.

## Iron

Iron is important for red blood cell production and a deficiency can lead to anaemia. Anaemia can cause tiredness and weakness, which in older people has been linked to increased risk of falls and depression<sup>6</sup>. Sources of iron include meat, liver, beans, nuts, wholegrains and leafy green vegetables. Drinking tea or coffee with meals can reduce iron absorption, so it is best to drink these between meals instead. In contrast, vitamin C helps the body absorb iron

so it can be beneficial to have foods high in vitamin C (e.g. oranges, fruit juice, peppers, broccoli and potatoes) along with foods high in iron.

## Hydration

Keeping hydrated is important as dehydration can cause issues such as headaches, irritability, confusion, dizziness, constipation and urinary tract infections. Older adults can be at risk of dehydration if they have a reduced sensation of thirst, which can occur with age, due to Alzheimer's or after a stroke. Other factors that can increase risk of dehydration include some medications, limiting fluid intake due to fear of incontinence or requiring assistance for eating and drinking. To help stay hydrated, it is recommended to have fluids easily available at all times. As previously mentioned, smoothies and milkshakes can be a way to provide both energy and hydration. Having water-rich foods, such as fruits, vegetables, soups, stews, jelly and yogurts, with, or in-between meals can also help to boost hydration levels.



## References

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