

Nutrition in the Elderly

Nutrients are substances that are essential for growth and good health - they promote energy, they help to form body structures and they are involved in regulating body functions. Protein, carbohydrate and fat are classified as **macronutrients** and primarily provide energy; protein also provides amino acids which are the body's building blocks. Minerals and vitamins are classified as **micronutrients** and play a key role in the body's structures and functions. Macronutrient malnutrition is referred to as protein-energy malnutrition and is usually associated with a reduction in body mass index (BMI <20 kg/m²). Micronutrient deficiencies may be more difficult to detect as they can occur in the presence of a normal body mass index (e.g. vitamin D deficiency).

As people grow older the bones and muscles in their body change, resulting in a decrease of lean body tissue and bone density. This leads to a reduction in basal metabolic rate (which depends on lean body mass) therefore energy requirements fall and hence appetite may lessen. Physical activity helps to lessen the reduction in lean body mass. Physical activity improves balance and reduces falls by keeping muscle strength. Body water content also declines with age and this can impair temperature regulation and increase susceptibility to dehydration. To maintain optimal health in senior years it is important keep fit and healthy, by eating foods high in vitamins and minerals, drinking water, and keeping as active as possible.

More on Nutrients

The older body finds it more difficult to absorb vitamins and minerals through food intake, especially vitamin D. Nutrients essential in the elderly are:

Vitamin B complex

Foods- Whole-grain cereals, bread, red meat, egg yolks, green leafy vegetables, sweet corn, brown rice, berries, and yeast.

Role- B vitamins help energy release and are important for the central nervous system. Lack of B vitamins is known to reduce mental alertness in elderly patients. Whelehans Traditional Tonic is a great source of B vitamins and iron for elderly patients.

Iron

Foods- Liver, red meats, oily fish, nuts eggs, pulses, and breakfast cereals.

Role- Iron is important for oxygen delivery in the body. Low iron levels will make you feel low in energy

Zinc

Foods- Chicken, meat and fish.

Role- It is a major component of over three hundred enzymes and plays a vital role in carbohydrate metabolism, protein synthesis, wound healing, the immune system, digestion, sugar level control, and the senses of taste and smell

Calcium

Foods- Milk, cheese, yoghurt, margarine and oily fish.

Role- maintains strong bones

Vitamin C

Foods- Fruits and vegetables like oranges, melons, blackcurrants, grapes, tomatoes, red and green peppers and Brussels sprouts.

Role- Vitamin C boosts the immune system. It is involved in producing protein. Vitamin C is a free radical which prevents against cancer and it helps the absorption of iron.

Vitamin D

Foods- Margarine, oily fish and sunlight.

Role- helps absorption of calcium hence strengthens bones. Although it has not been proved, it has been said that vitamin D helps slow down the effect of ageing. It is also possible that vitamin D could help protect the body from cancer and heart related diseases.

Carbohydrates

Foods- Bread, rice, pasta, cereals and white sugar.

Role- an important source of energy

Folic Acid

Foods- Dark green vegetables, breakfast cereals, oranges, yeast extracts.

Role- Most people assume folic acid is only needed during pregnancy. However is important at all ages to properly form red blood cells and for our bodies to metabolise protein for energy. Folic acid and other B vitamins have been shown to fight cardiovascular disease and to help prevent Alzheimer's, osteoporosis, cancer and it helps to stabilise mental health.

Protein

Foods- Milk, eggs, lean meat, chicken and fish.

Roles- is responsible for building and repair of the body's tissues amongst many other important functions.

Fats

Foods- Meat and dairy products. Always use low fat varieties. Grill food wherever possible.

Role- Another source of energy for the body. Fat also provides insulation for the body and is needed to store fat soluble vitamins- A, D, E and K. After the age of 75, the fat levels in the body decreases.

Water

Dehydration in the elderly often occurs as a result of not drinking enough water. It is important to drink at least 8 glasses of water per day (approx 2 litres).

Care of the Elderly

To help elderly patients and their families, Whelehans blister pack medication for free. This can be a great aid in situations where patients need to take multiple long term medicines, especially in situations where a person lives alone or where home help has been cut by the HSE. Blister packs arrange the medication into easy to follow packs arranged into the different times of day.

Whelehans also have a free prescription delivery service covering Westmeath where we will collect your prescription from your GP and deliver it to your home. This is proving especially popular with families and carers since the HSE are implementing cutbacks to home help for elderly patients.

Causes of Malnutrition

There are many causes of malnutrition. These can include:

- **Reduced intake:** Poor appetite due to illness, nausea or pain when eating, depression, anxiety, side effects of medication or drug addiction
- **Diminished sensory ability:** Taste changes, less smell perception, hard of hearing, reduced appetite
- **Inability to eat:** This can be due to restrictions imposed by surgery or investigations, reduced levels of consciousness; confusion; difficulty in feeding oneself due to weakness, arthritis or other conditions such as Parkinson's Disease, swallowing difficulty, vomiting, painful mouth conditions, poor oral hygiene or dentures;
- **Gut:** Changes in the gut micro flora can affect digestion and absorption of nutrients. With a reduced immune system there may be bacterial overgrowth in the gut, or conversely, the use of antibiotics may reduce the beneficial gut flora, leading to diarrhoea or constipation. Probiotics such as *Acidophilus* available in Whelehans can help counteract this.
- **Drug Use:** Drugs can affect the absorption and metabolism of some nutrients. Check with your pharmacist if you feel your medication is affecting your appetite or reduces vitamin levels.
- **Impaired absorption:** This can be due to medical and surgical problems affecting digestion & stomach, intestine, pancreas and liver (e.g.) Crohn's disease
- **Excess losses:** Vomiting; diarrhoea;

Consequences of Malnutrition

- Increased risk to infections
- Delayed wound healing
- Impaired respiratory function
- Muscle weakness and depression

Detection of Malnutrition

The best indicators of poor nutrition are measurements of weight and height. Body Mass Index (BMI) is a good indicator. Other measures in specialist circumstances include skin-fold thickness, arm circumference and grip strength measurements. These generally need an experienced assessor. A number of screening tools have been developed to help you identify whether a patient is at risk of malnutrition. Examples include the **Mini Nutritional Assessment (MNA)** and the **Malnutrition Universal Screening Tool (MUST)**. More information on these can be obtained in Whelehans. Performing a routine nutritional 'screening' should result in early identification of patients who may be at risk of malnutrition.

Strategies to improve nutrition in the elderly

Alleviate Dry Mouth

Avoid caffeine; alcohol; tobacco; and dry, bulky, spicy, salty, or highly acidic foods. If patient does not have dementia or swallowing difficulties, offer sugarless hard candy or chewing gum to stimulate saliva. Bioextra[®] gels, mouthwashes and chewing gum are particularly effective at treating dry mouth. These are available in Whelehans. Keep lips moist with petroleum jelly (e.g.) Vaseline[®]. Encourage frequent sips of water.

Improve oral intake

Aim to give the patient their favourite foods when possible. Small frequent meals with adequate nutrients can help patients regain or maintain weight. Provide nutritious snacks (e.g.) banana. If the patient uses dentures, ensure they are not causing pain and they fit correctly.

Provide conducive environment for meals for bedbound patients

If the patient is bedbound, remove bedpans and urinals from room before mealtime. If the patient is prescribed painkillers or anti sickness medication these should be taken in a manner that will diminish the likelihood of pain or nausea during mealtimes (check with your pharmacist). Serve meals to patients in a chair if they can get out of bed and remain seated. Create a more relaxed atmosphere by sitting at the patient's eye level and making eye contact during feeding. Do not interrupt patients during mealtimes.

Oral Nutritional Supplements (ONS)

The type of ONS most commonly prescribed in the community is the "sip feeds", which include readymade milk-, juice- and yoghurt-based or savoury drinks. Other formulations available include dessert type products and powder supplements that are made up into a drink or added to drinks or food. These products contain different amounts and types of vitamins, minerals and/or macronutrients. Examples include Ensure Plus[®], Fortisip[®] and Forticreme[®].

Although ONS are widely used, currently the evidence base for their usage is poor. Long-term usage might result in reduced food intake. Food is the best vehicle for appropriate nutrient consumption. According to the National Medicines Information Centre in St James Hospital, Dublin, no studies have yet determined the optimum usage of ONS in terms of the most appropriate patients, the optimum dose and duration of use. Despite lack of evidence, ONS has a role in many circumstances. It is recommended that a patient is referred to a dietician before oral nutritional products are commenced.

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Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended

For comprehensive and free health advice and information call in to Whelehans, log on to www.whelehans.ie or dial 04493 34591. You can also e-mail queries to info@whelehans.ie.