

Malnutrition and the Older Adult¹

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Why do older adults develop malnutrition?

Many older adults are at risk for developing malnutrition, the lack of adequate nutrition to maintain health.

The main cause of malnutrition in older adult is inadequate food and nutrient intake. A poor appetite or problems with chewing and swallowing may lead to lower food intake. Older adults who care for themselves, may have problems purchasing and transporting food to their homes, and may have difficulties preparing nutritious meals. Many common medications contribute to poor food intake, through side effects such as nausea, dry mouth and gastrointestinal complaints.



Figure 1. Weight loss is the most important and often the first sign that food intake is inadequate.

Malnutrition can also result from diseases or health conditions that cause problems with the digestion of food and absorption of nutrients.

Why are we concerned about malnutrition?

Malnutrition can lead to many serious health problems including:

- infections
- pneumonia
- falls and fractures
- digestive disorders
- skin breakdown, pressure sores
- confusion, memory problems, dementia

Malnutrition in older adults may lead to a poor quality of life and contribute to higher care needs, hospitalization and increased health care costs. Improving nutrition in the older adult leads to:

- Briefer illnesses
- Fewer and shorter hospital stays
- Fewer complications
- Improved functional status
- More independent living
- Improved quality of life

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What nutrients are needed to prevent malnutrition?

Energy and Protein

When weight loss has happened, total food intake and energy (i.e. calories) are inadequate. This leads to loss of body fat and muscle. Loss of muscle leads to weakness and mobility issues. Loss of body fat means there is less energy stored in the event of illness and less "padding" which may cause discomfort and an increased risk of pressure sores.

Protein intake of many frail older adults is low. Foods high in protein, such as meat and fish are recommended. However, meat may be difficult to chew for those with dental issues or dry mouth. Meats may need to be ground and moistened to encourage intake. (1)

Dairy foods such as milk, yogurt, and cheese are recommended to improve protein and calorie intake. Eggs and meat alternates such as beans are also encouraged. These foods are good sources of protein and are usually easy to chew and swallow.

In addition to protein, added fat may be needed to increase calories, prevent further weight loss, and encourage weight gain if needed. Adding fats may improve the flavor of foods and may also ease swallowing.

Vitamins and Minerals

Older adults often have low intakes of many vitamins and minerals. For example, folate, magnesium, zinc, and Vitamins E, B₆, B₁₂, C and thiamin have been found to be low in older adults living in nursing homes (2).

Older adults may need to take a vitamin and mineral supplement, or nutritional beverage or pudding supplements fortified



Figure 2. Malnutrition directly affects quality of life.

with vitamins and minerals to meet their needs. Examples of commonly consumed nutritional supplements are Ensure® and Boost®.*

What are the vitamin deficiencies of greatest concern?

Vitamin D

Most older adults in the US have intakes of vitamin D well below the recommended level (3). Foods naturally rich in vitamin D are limited (fatty fish, egg yolks, some mushrooms). In the past, most vitamin D has been made in our skin following exposure to sunlight. However, this process decreases with aging and many older adults spend most of their time indoors. Public health warnings against sun exposure have also encouraged people to avoid the sun.

Vitamin D deficiency occurs frequently in older adults, especially those that live in nursing homes (4). Low intakes of vitamin D are related to increased risk of hip fractures, as well as muscle weakness and pain. As diet alone cannot meet vitamin D requirements for the older adults, supplements are required (3).

Vitamin B₁₂

Vitamin B₁₂ deficiency is very common in the older adult. This is a serious deficiency as it leads to irreversible dementia as well as anemia, depression, gastrointestinal disturbances and urinary tract infections.

B₁₂ deficiency in older adults is often due to problems absorbing the vitamin B₁₂ found naturally in foods such as fish, meat, eggs and milk (4). Low dietary intake of B₁₂ also results in deficiency. Supplements providing B₁₂ are recommended for older adults.

What can caregivers do?



Figure 3. Fish also provides high quality protein.

As a caregiver or family member of an older adult, there are several steps you can take to prevent malnutrition. If you notice weight loss or poor nutrient intake, try the following tips:

- Prepare meals high in protein, including foods such as meat, eggs, and beans.
- If you notice difficulty chewing, try soft moist foods and cut up/ground meat.
- Give foods high in added fats to increase caloric intake and enhance flavor.
- Provide multivitamins or nutritional supplements such as Ensure® and Boost® as snacks.*



Figure 4. Dairy products like this glass of milk will help to improve protein and calorie intake.

Where can I get more information?

The Family and Consumer Sciences (FCS) agent at your county Extension office may have more information and classes for you to attend. Also, a registered dietitian (RD) can provide reliable information to you.

References

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