Malnutrition and the Older Adult

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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 (Moreira et al. 2016). Poor appetite is strongly related to developing malnutrition (van der Pols-Vijlbrief et al. 2014). Problems with swallowing may also lead to lower food intake and risk of malnutrition (Mann, Heuberger, and Wong 2013). Older adults who care for themselves may have problems purchasing and transporting food to their homes and may have difficulties preparing nutritious meals. Use of many medications contributes to malnutrition, due to side effects such as nausea, dry mouth, and gastrointestinal complaints (Moreira et al. 2016). 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 in older adults, particular those in care homes, can lead to many serious health problems (Agarwal et al. 2016). The consequences of malnutrition include:

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

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 older adults leads to:

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

**What nutrients are most needed to prevent malnutrition?**

**Energy and Protein**

When weight loss happens, total food intake and energy (calories) are inadequate. This leads to loss of body fat and muscle. Loss of muscle leads to weakness and mobility issues (Bollwein et al. 2013). 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 (Compher et al. 2007).

Older adults with a higher protein intake have a lower risk of becoming frail (Rahi et al. 2016). Foods high in protein, such as meat, poultry, and fish are recommended. However, some meats may be difficult to chew for those with dental issues or dry mouth. Meats, then, may need to be ground and moistened to encourage intake.

Dairy foods such as milk, yogurt, and cheese are recommended to improve protein and calorie intake (Iuliano, Woods, and Robbins 2013).

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,
Vitamins E, B<sub>6</sub>, B<sub>12</sub>, C and thiamin have been found to be low in older adults living in nursing homes (Lengyel, Whiting, and Zello 2008).

Older adults may need to take a vitamin and mineral supplement, or consume nutritional beverage or pudding supplements with added vitamins and minerals to meet their needs.

**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 (Whiting and Calvo 2010). Foods naturally rich in vitamin D are limited (fatty fish, egg yolks, some mushrooms). Vitamin D is 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 inadequacy occurs frequently in older adults, especially those that live in nursing homes (Dunne and Dahl 2007). 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 (Whiting and Calvo 2010).

**Vitamin B<sub>12</sub>**

Vitamin B<sub>12</sub> 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.

B<sub>12</sub> deficiency in older adults is often due to problems absorbing the vitamin B<sub>12</sub> found naturally in foods such as fish, meat, eggs, and milk (Dunne and Dahl 2007). Low dietary intake of B<sub>12</sub>, such as with a vegan diet, also results in deficiency. Supplements providing B12 are recommended for older adults.

**What can caregivers do?**

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, poultry, fish, dairy, eggs, and beans.
- If you notice difficulty chewing, try soft, moist foods and cut up/ground meat.
- Offer foods with added fats to increase caloric intake and enhance flavor.
- Offer nutritious snacks or nutritional supplements between meals.

**Where can I get more information?**

The Family and Consumer Sciences (FCS) agent at your local UF/IFAS Extension office may have more information and classes for you to attend. UF/IFAS Extension offices are listed online by UF/IFAS at [http://solutionsforyourlife.ufl.edu](http://solutionsforyourlife.ufl.edu) or [http://solutionsforyourlife.com/map](http://solutionsforyourlife.com/map).

Also, a registered dietitian (RD) can provide reliable information to you. For a referral to an RD in your area, call the Florida Dietetic Association at (850) 386-8850 or check the yellow pages of your phone book.

**References**


