

Nutrition in Aging

IAHHC

Nutrition is often overlooked and confusing, particularly for older adults. Few Americans meet the current dietary guidelines for recommendations with respect to their intake of fresh fruits and vegetables. According to the CDC, in Indiana, the average intake is only one piece of fruit and one and a half servings of vegetables per day. This

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translates into two-thirds of Americans who are overweight or obese; and recent data indicates older adults, ages 50 to 69, are even more affected (CDC, 2010). Those who are considered obese are often at risk for poor nutrition, as they consume far too many calories from foods that are considered “empty” calories. About one-third of seniors are thought to be obese (CDC, 2010). Obesity is known to be associated with

increased risk for diabetes, heart disease, Alzheimer’s, cancer, and many other chronic diseases.

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for seniors, the food they do ingest needs to be more nutritionally-dense. Maintaining a nutrient-dense diet is critically important for older adults because of the impact of food intake on health. Years of research have demonstrated that diet quality has a huge effect on physical condition, cognitive condition, bone health, eye health, vascular function, and immune system. Yet,

Quick Vegetable and Fruit Options:

Vegetables:

- Cherry tomatoes
- Sugar snap peas
- Bags of pre-washed spinach/romaine lettuce
- Baby or shredded carrots
- Pre-cut broccoli and cauliflower
- Frozen vegetables
- Spaghetti sauce, salsa, canned tomatoes (low salt and sugar)
- 100% vegetable juice

Fruits:

- Apples, bananas, pears, plums, berries
- Frozen fruit
- Natural applesauce (no sugar added)
- Canned fruit in its own juice
- Pre-sliced melons and pineapple
- Dried fruit trail mixes
- 100% fruit juice

this can be challenging to achieve for several reasons. Physical, social, and psychological changes can all affect a senior's diet and appetite and increase their changes of poor nutrition or even malnutrition.

Physiological Changes:

Physiological changes with aging can contribute to poor nutritional intake. Recent research demonstrates that older adults' abilities to absorb and utilize certain nutrients lessen with age. Vitamin B12 deficiency affects about 15% of the elderly population. This deficiency can be due to either malabsorption or to an insufficient dietary intake, mostly resulting from a decreased intake in animal products. Low vitamin B12 can lead to increased risk of depression and dementia. In the elderly, folate deficiency can also develop as a result of inadequate dietary intake leading to an increased risk of anemia. Finally, many older people have low vitamin D levels due to lack of exposure to the sun, aging skin, and use of sunscreen. Inadequate levels of vitamin D lead to a reduced calcium absorption, hyperparathyroidism, and

increased bone resorption. Vitamin D affects fracture risk and, consequently, the risk of falling.

Dental health may also affect diet in older adults. Lost teeth can affect the type and consistency of food chosen to eat and makes it less likely an older adult will choose fresh fruits, vegetables, and meats which require more chewing. Dentures that are not fitted properly may also change eating patterns because of difficulty chewing.

Another physiologic change occurring in about 15% of community-dwelling older adults is difficulty swallowing. Swallowing issues may result from a reduction in chewing and tongue muscle mass, but more often; it results from decreased saliva production or dry mouth. Approximately 40% of older persons complain of dry mouth which makes eating, swallowing and tasting foods more difficult. Dry mouth in older adults is often related to medication side effects.

Aging is often accompanied by a loss of appetite and changes in taste and smell, all of which can lead to more limited food choices and

lower intake of healthful foods. A decrease in the sense of smell may be related to many factors, including sinus problems, infections, cigarette smoking, medications, periodontal disease and certain diseases, such as Alzheimer's disease and Parkinson's. Without an adequate sense of smell, foods will be less appealing and older adults are more likely to have less interest in food.

Socioeconomic Factors

Just as challenging for many seniors is that a meal may no longer be a social experience. That's because very often, client's live at home alone. Isolation, depression and just not caring to cook for one person can lead to many seniors simply not making nutrition a priority. Losing a spouse or other family member can impact senior's habits, including their eating patterns. They may feel depressed, which can lead to lower appetite. If their lost loved one performed most of the shopping or cooking, they may not understand how to prepare healthful foods for themselves.

Researchers have found that people in lower socioeconomic situations have

some predictable barriers to eating a healthy diet. There is a strong relationship between poor nutrition and low income. These barriers include factors such as:

Financial limits: Fresh fruits, vegetables, and lean meats are costly. Older adults with low incomes need to choose among needs such as food, heat, telephone bills, medications, and health care visits. Some older people eat only once per day in an attempt to make their income last through the month. Growing grocery prices often mean senior clients choose less expensive foods to eat; and these are usually foods with less nutritional benefits.

Transportation or mobility problems that restrict shopping: Availability of transportation may be limited for older people. Many small, long-standing neighborhood food stores have been closed. Those in rural communities have an especially difficult time with transportation to groceries. Many older adults experience mobility constraints, which make it difficult to shop for food, stand long enough to prepare meals, or lift and open jars or containers.

Lack of education about nutrition: Nutrition education is an essential component in improving dietary habits and food choices. Long-standing habits and lifestyles can be difficult to change for older adults. Clients are often advised to change their diets in order to manage specific chronic disease processes. But this education is limited and difficult for seniors to understand and generally requires that they purchase fresh and less processed foods, which can be more difficult and physically straining for them to prepare.

Cognitive effects on nutrition

Older adults with dementia are at extra risk for poor nutrition since they are unlikely to be able to shop and cook for themselves. Even with a good caregiver, people with dementia need a lot of help actually finishing the food that is placed in front of them. This is due to the fact that these clients may not be physically able to carry out the processes of chewing and swallowing. The situation is often complicated by the fact that many people with dementia do not like to accept help with eating. Also, they

may be taking sedatives or other medications that interfere with appetite or taste.

Malnutrition

Not much is known about the rate of malnutrition in community-dwelling older adults in the United States, but it is thought that as many as 56% are at risk for malnutrition and about 6% are considered malnourished. Malnutrition puts a person at risk of becoming overweight or underweight. It can weaken muscles, bones and leave a person vulnerable to disease. Finally, the immune system weakens with age and evidence suggests that a poor intake of essential nutrients contributes to this issue. A weakened immune system raises the risk of food-borne illness, or food poisoning for older adults; and is thought to put an older adult at increased risk for developing respiratory and urinary tract infections.

What does a nutritionally-dense diet look like?

To help your clients make good food choices, it is important to understand what a healthy senior diet should look like for older adults not

on another disease-specific diet. The United States Department of Agriculture's (USDA) MyPlate (see pictorial representation of MyPlate) is an easy to view and understand diet that highlights what a person's plate should look like for optimal nutrition.

MyPlate.gov provides educational resources for families and clients regarding diet and offers tips on how to make better food choices. Basically, MyPlate recommends that half the plate be filled with fruits and vegetables, a quarter be filled with grains, and the remaining quarter with a source of protein. MyPlate also features a cup with dairy reminding individuals to consume calcium-rich foods.

Fruits and Vegetables:

Diets rich in fruit and vegetables reduce the risk of chronic diseases and aid in weight management. Besides being low in calories, and high in nutrients, vitamins, minerals, and fiber; recent research studies have identified specific properties of fruits and vegetables that work together to enhance health. Naturally occurring

antioxidants are abundant in fruits and vegetables and assist in managing free radicals from exposure to toxins in the environment.

Fruits and vegetables also play an important role in weight management. This is because fruits and vegetables are low calorie foods that are high in volume, fiber, and water content. All of which helps to slow digestion and produce a longer sensation of fullness. Those who eat a diet rich in fruits and vegetables are frequently less likely to feel hungry and snack on foods dense in calories.

MyPlate recommends that half the plate be filled with fruits and/or vegetables per meal and the daily amount should be 1 ½-2 cups of fruits and 2-2 ½ cups vegetables per



day.

Grains:

Grains are the backbone of a healthy diet. They are low in fat, rich in carbohydrates, and contain a variety of minerals and nutrients. Whole grains are the healthiest type of grain compared to refined grains or enriched grains. Whole grains contain the entire grain seed of a plant. They are rich in fiber, vitamins, minerals and phytochemicals. The USDA recommends that at least half of all grains consumed should be whole grains, specifically 3-5 servings a day. The average American eats less than one serving of whole grains a day and some 40% of Americans never eat whole grains. Whole grains include Barley, buckwheat, corn, oats, quinoa, brown rice, and wheat (including varieties such as spelt, farro, bulgur, wheat berries and cracked wheat)

Proteins:

Proteins are essential for a healthy diet and a properly functioning body. Proteins helps the body fight off infection, and repair, maintain and build muscle to support growth and mobility. The USDA recommends lean protein sources including eggs, poultry, beans, fish, and lentils.

What you can do to help clients make better food choices:

Nutritional needs vary from person to person; however, some strategies that can help everyone maintain a healthy diet includes:

- Focus on nutrient rich foods. This means that older clients should get most of their calories from vegetables and fruits, beans and lentils, nuts and seeds, whole grains, low fat dairy and lean protein.
- Fiber is essential for a healthy digestive system and will help clients with constipation and in managing cholesterol levels.
- Help client cut back on sodium and empty calories from fats and added sugars.
- Help clients vary protein choices. Meat may be difficult to chew or swallow so slow cooked or ground meats, beans and lentils may be easier for older adults to eat.
- Determine food preferences, including ethnic preferences.
- Try to make mealtimes an enjoyable, social

occasion while you are there.

- For clients that cannot prepare their own meals, obtaining nutrient rich foods is even more difficult. If your client relies solely on convenience pre-prepared food items, you can help them choose the healthiest foods. These may include frozen or low-sodium canned vegetables, frozen or low-sugar canned fruits, precooked or rotisserie chicken, low-sodium canned soups, bagged salads or coleslaw mix and instant oatmeal.
- Make foods more appealing. The use of herbs, marinades, dressings, and sauces to intensify flavors.
- Increasing physical activity or an exercise routine can improve appetite, improve social interactions and alleviate depressive moods. If the client's health care provider has encouraged increased activity for your client, help encourage them to walk and perform simple exercise.

Resources:

Remond, Didier et al. "Understanding the Gastrointestinal Tract of the Elderly to Develop Dietary Solutions That Prevent Malnutrition." *Oncotarget* 6.16(2015). 13858–13898. Print.

Fakhouri, T, Ogden, CL, Carroll M.D; Kit, B.K; Flegal, K.M. "Prevalence of Obesity Among Older Adults in the United States, 2007-2010." <https://www.cdc.gov/nchs/data/databriefs/db106.pdf>

United States Department of Agriculture.
[Choosemyplate.gov](http://ChooseMyPlate.gov)