

A Crucial Focus on Special Nutrition Needs During Old Age Adults

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Abstract

This article deals with nutritional needs and dietary requirements of older adults, which are quite different to that of young and middle-aged persons, and require a different approach. In extreme cases elderly individuals could become malnourished, resulting in the prevention of recovery from illness and an increased likelihood of developing more health problems. Additional adverse side effects may include fatigue and psychological problems such as anxiety and depression. So, the best way for an elderly individual to maintain optimum levels of health is to eat a balanced diet which caters to the specific nutritive needs of their age group. On an average, the diet of adults provides more than enough of most nutrients, but intakes of some vitamins and minerals have been shown to be low in some age / sex groups e.g., iron in women. No matter, of what age the persons are, their bodies need a diet made up of lots of healthy and nutritious foods in order to function correctly. The basic components of any diet should include a combination of the protein from meat, fish, eggs and pulses; five portions of fruit and vegetables per day; and carbohydrates from brown rice, potatoes, cereals, whole-wheat pasta and couscous. What is needed to avoid, is also remains the same as people age and it is advisable to limit the amount of salt and alcohol consumed. Older and elderly adults who are struggling to maintain a healthy and balanced diet may find what they can take benefits from the guidance and support of a nutritionist. Adults who are serious about achieving a healthier lifestyle need to be proactive and use the up-to-date knowledge of food and nutrition to help them on their way towards their goals.

Keywords

Nutritional Treatment, Old Age, Adulthood, Nutritional Therapy, Food

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1. Introduction

Energy requirements fall when growth stops usually after the teenage years, but body requirements continue to vary depending on the age, gender and activity level of the individuals. When it comes to nutrition, the habits a person develops as young people, these may likely to stay with persons throughout their lives. Even small changes made to our eating and drinking habits can have a huge impact on our

health, and the way we feel now and in the long-run. The dietary guidelines reports that about many families are unable to acquire enough healthy foods to meet their nutritional needs. On the other hand, some older persons are consuming too many calories, so these adults are overweight or obese. As a result, choosing of nutrient-dense foods and abiding by individual calorie recommendations can help to reach personal nutrition needs while maintaining a healthy body weight. A healthy and varied elder's diet is one which

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contains plenty of bread, rice, potatoes, pasta and other starchy foods and fruit and vegetables; some milk and dairy foods; some meat, fish, eggs, beans and other non-dairy sources of protein; and just a small amount of foods and drinks high in fat and/ or sugar. Eating of a varied diet, no smoking and drinking of alcohol, keeping physically active and maintaining body weight within the healthy range for height are all factors that are thought to contribute to reduce the risk of chronic diseases such as cardiovascular disease, type 2 diabetes and some cancers (Neelemaat *et al.*, 2012; Sarwar *et al.*, 2013).

As persons age, changes to their body, lifestyle, health, and work and home life can affect the diet and eating habits. But, whatsoever age or circumstances are, eating well is vital to mental sharpness, energy levels, independence and resistance to illness. Adults should really know and understand their dietary needs by this stage of their lives. A healthy diet can be the key to a positive outlook and staying emotionally balanced. The high number of adults who are clued up about what they should be eating, unfortunately, does not correlate with the number of adults who are actually implementing this knowledge, with many consuming too much of the wrong things such as saturated fat, sugar and salt. Adults should aim to be active on a daily basis and achieve at least 150 minutes (2.5 hours) of moderate intensity activity in bouts of 10 minutes or more, or 75 minutes of vigorous intensity activity (or combination of both types of exercise) spread over the course of a week. Adults should also undertake muscle strengthening activities on at least two days a week. Being active on a daily basis delivers a range of health benefits, including helping to maintain a healthy weight and reducing the risk of coronary heart disease, stroke and type 2 diabetes (Harvey *et al.*, 2014; Sarwar *et al.*, 2014). Older persons are particularly vulnerable to malnutrition, and moreover, attempts to provide them with an adequate nutrition encounter many practical problems. Since both lean body mass and basal metabolic rate decline with age, an older person's energy requirement per kilogram of body weight is also reduced. As, their nutritional requirements are not well defined, therefore, this article deals with nutritional needs and dietary requirements of older adults.

2. Long Life Foods

A person should never be put off by buying of long life and frozen foods as these can be equally as nutritious as buying of fresh produce. If a person cannot get out to the shops every few days to buy fresh fruits and vegetables then may ensure to have a good stash of tinned and frozen foods. These make food preparation easier and are great for times when persons are unable to get to the supermarket. Other useful

store cupboard foods include, cereals (crackers, oatcakes and rice crackers), drinks (malted drinks, meal-replacement drinks, fruit juices), gravy and stock cubes, instant mashed potato, milk (either long-life, dried or evaporated and rice pudding), meat, fish, pulses, canned tuna, salmon, mackerel, sardines and stewed meat, ham and corned beef, packet sauces or jars, pasta and rice, pickles, jams, chutneys, peanut butter, honey, and soup (Carriquiry, 2003).

3. Important Food Groups, Vitamins and Minerals

Getting of an adequate nutrition can be a challenge as a person gets older. With the passage of age, the number of calories a person needs begins to decline. Eating of right and staying fit are important with no matter what a person has age. As some persons get older, their bodies have different needs, so, certain nutrients become especially important for good health. The best way to think about a healthy diet is that it should have balance amount of nutrients. This means persons are getting a balance of the three main nutrients, like carbohydrates, healthy fats and protein, to whom every day on average, and additionally, peoples are not under eating or overeating (Mughal *et al.*, 2015). There are certain nutrients which become particularly important as a person gets older, including the following:-

3.1. Protein

Protein is needed for almost every function in the human's body. Protein provides building blocks for bones, muscles, cartilage, skin and blood in our bodies. Proteins are also used to make important enzymes, hormones and vitamins. Protein helps to normalize blood sugars, makes us feel alert and provides a feeling of fullness. Doing this can help a person to avoid some of the trans fats found in many protein sources and balance our diet better. Adults require protein to maintain lean muscle mass and for healthy hair, skin and nails. Protein can also increase satiety, which might help to avoid overeating. Normally, men need at least 56 grams of protein and women's requirement is 46 grams, however, while pregnant and nursing women require at least 71 grams of protein each day. But, the active adults may need even more protein than these minimum requirements. Protein-rich foods include eggs, poultry, lean meats, seafood, dairy foods, soy products, seitan, nuts, seeds and legumes. Try to make seafood as the protein on personal plate twice a week. Also try to make beans, peas and soy products as a main dish at least a few times per week (Erqou *et al.*, 2009; Allingstrup *et al.*, 2012).

3.2. Carbohydrates

Carbohydrates provide fuel for our brains and muscles as well

as contain important vitamins, minerals, fiber, antioxidants and phytochemicals, which help to prevent diseases. Grains are often our main source of carbohydrates, although fruits and vegetables and other foods also contain carbohydrates. Grains are divided into two main groups, such as whole grains and refined grains. Whole grains contain the entire grain kernel (bran, germ and endosperm). In the process of refining grains, fiber and many key nutrients, which reduce the risk of heart disease, colon cancer and obesity, are lost. Although carbs have gotten a bad reputation among the dieting community in recent years, carbohydrates are our body's main source of energy. The experts recommend the eating of at least 130 grams of carbs (meat, fish, eggs, vegetables and natural fats) each day, or about 45 to 65 percent of our daily calorie intake from carbs, equivalent to 225 to 325 grams of carbs per day for a 2,000 calorie diet, as carbs provide 4 calories per gram. Try to choose of nutrient-dense, high-fiber carbohydrates from whole grains, fruits, vegetables and legumes. Healthy carbs are also found in low-fat dairy products, such as milk and yogurt (Heidegger et al., 2013).

3.3. Healthy Fats

There are such things as healthy fats, which cannot and should not be avoided in our daily diet. Healthy fats provide energy and essential fatty acids, which help to keep our skin healthy, benefit to absorb certain vitamins and play a key role in brain development. Older people do not need a lot of fat each day, recommendations are less than 30 percent of our daily calorie intake. Elders should try to steer towards their foods that contain monounsaturated and polyunsaturated fats and omega-3 fatty acids, which may reduce our risk of developing coronary artery disease and help to lower blood pressure and triglycerides. These healthy fats can be found in avocados, olives, nuts, fish, and oils (such as olive oil or canola oil that has not been hydrogenated). Foods that are low in saturated fats and trans fat help to reduce the risk of heart disease. Most of the fats a person eats should be polyunsaturated and monounsaturated fats. So, check the nutrition facts panel on food labels for total fat and saturated fat. Replacing of saturated and trans fats with healthier, unsaturated fats is beneficial for our heart. Meanwhile, try to avoid trans fats, saturated, and hydrogenated fats because these fats can raise cholesterol levels and cause cardiovascular health problems. These fats are found in beef, pork, chicken fat, butter, butter/cream/ milk fat, processed food such as potato chips, and many desserts such as cookies or ice cream. It is satisfactory to eat healthful fats occasionally, but they should be avoided in everyday foods. Older people who are fit, well and within a healthy weight range should minimize saturated fat intake to improve heart health. However, elderly adults who are above the age of 75 may find that fat restriction which is not beneficial, especially if a person is frail, below a healthy

weight or has a small appetite. In some cases extra fat may actually be required to increase the number of calories consumed and to aid in weight gain. Elderly adults wishing to gain weight should always consult their healthcare provider or a qualified nutritionist before making any significant changes to their diet. Pies, pastries, fried and battered foods, and discretionary items such as chips and chocolate are generally high in saturated fat, and may also contain dangerous trans fats, so, these should only be eaten very occasionally. Try fresh fruits with reduced fat yoghurt for sweetness and flavor, and choose wholegrain or oat-based options for crumbles or cakes. The experts recommend the eating of 20 to 35 percent of our calories from fats, or about 44 to 78 grams per day for a 2,000-calorie diet. Try to choose of healthy fats, such as vegetable oils, nuts, seeds, fish oil, peanut butter, avocados and hummus (Lewington et al., 2007; Choi et al., 2014).

3.4. Vitamins and Minerals

Vitamin and minerals can play a role for diagnosed deficiencies, which are not uncommon in older people as they may eat less, or have digestion issues due to illness or medication. Eating of a well-balanced diet on a regular basis can help to meet most of our micronutrient such as vitamin and mineral needs. However, physicians can advise about taking of a multivitamin supplement that is customized for our specific needs to make sure about meeting of nutrition requirements on a regular basis.

Older adults need more calcium to help in maintaining in bone health. Calcium plays many roles in the body, but it is most important for building and maintaining of strong bones. Unfortunately, surveys show that as people age, they consume less calcium in their diets. Calcium is so essential that if it is got enough, our body can leach it out of the bones. Coming up short of calcium has been shown to increase the risk of brittle bones and fractures. Calcium is an essential component for the maintenance of healthy bones, but unfortunately may begin to be reabsorbed back into the body from the bones as a person gets older. This condition is known as osteoporosis and eventually leads to weaken of the bone tissue which leaves bones brittle and fragile. In order to reduce the risk of osteoporosis and to keep the bones healthy, individuals can obtain calcium from milk and dairy foods such as yogurt and cheese, leafy green vegetables and calcium fortified cereals. Other calcium-rich foods include fortified cereals and fruit juices, dark green leafy vegetables and canned fish with soft bones. If a calcium supplement or multivitamin is taken, choose one that contains vitamin D (Nagpal et al., 2005).

3.5. Dietary Fiber

It is important for an older person to maintain an adequate intake of dietary fiber, especially the bulk forming cereal

fiber. It is of importance in the prevention of constipation and lack of dietary fiber may be a contributory factor to the development of large bowel cancer. Fiber intake should be increased gradually as a sudden change from a low to high fiber diet can cause diarrhea, cramps, flatulence and constipation. Elders should eat more fiber-rich foods to stay regular as it can help to lower our risk for heart disease, control weight and prevent Type 2 diabetes. To increase fiber intake in the diet, 100% whole meal can be used instead of white bread. Using of wholegrain or high fiber cereal daily can also significantly increase the fiber intake. Specimens of such cereals include all bran, bran flakes and shredded wheat. Porridge, which is popular with older people, does not contain much cereal fiber (except when made from pinhead oatmeal), therefore, a dessertspoon of all bran can ensure an adequate intake. Eat whole-grain breads and cereals, and more beans and peas along with fruits and vegetables, which also provide fiber. Bowel problems can become an issue as we age and many older and elderly adults do suffer from constipation. In order to keep bowel issues and irritations to a minimum, older adults should include an adequate amount of fiber in their diets as this can help to ensure that the digestive system is healthy and in working order. Good sources of fiber include wholegrain cereal, porridge, wholegrain bread, brown pasta and rice, fresh fruit and vegetables and pulses (Chittawatanarat *et al.*, 2010; Holscher *et al.*, 2015).

3.6. Fluids

Water supports and provides many vital functions in body, including hydration, digestion and blood volume, however as any human ages, he or she may not feel thirsty as often, even when the body needs fluid. Any person should aim to drink at least six times a day, and more in warmer weather or if is exercising. Tea, coffee, mineral water, soda water and reduced fat milk can all count towards personal fluid intake during the day, but water is always the best. As a person gets older, the body's ability to conserve water gradually decreases and the perception of thirst becomes less sensitive. However, dehydration can result in drowsiness and confusion among other side effects, so, it is important to keep hydrated throughout the day even if a person does not feel thirsty. Fluid intake does not necessarily mean just water and can also include hot drinks such as tea and coffee, fruit juice or squash. Older people are particularly at risk of dehydration due to a diminished ability to sense thirst, particularly those of a very advanced age or illness. An adequate fluid intake is important, so, remember to drink plenty of fluids as this might help the gut to function properly (Sarwar *et al.*, 2013; Mirza *et al.*, 2015).

3.7. Stay Careful With Alcohol

Alcohol does not provide any essential nutrients, thus healthy

men and women should not consume drinks on any given day or at any occasion to reduce the risk of alcohol related injury or disease. Alcohol can affect to human's body with the brain's communication pathways, and may be able to disturb the way the brain looks and works. Drinking a lot alcohol by elders over a long time or too much on a single occasion can damage the heart, and causing problems including liver, pancreas and brain damage and immune system disorders. Physicians warn that drinking among the elderly is cases hidden problems and they say that elderly drinkers bodies are less able to cope with drinking. They state that metabolism is slower in the elderly, so, the toxic chemicals linger longer in the body, while drunkenness can raise the odds of depression and the development of dementia (a decline in mental ability severe enough to interfere with daily life). In some older people, the amount of alcohol they drink can make them more likely to have accidents, including falls and fractures and car crashes. Drinking of alcohol among the elderly, leads to some kinds of cancer, and worsen some health conditions like osteoporosis diabetes, high blood pressure and ulcers. Alcohol makes some medical problems hard for doctors to find and treat, for instance, it causes changes in the heart and blood vessels. These changes can dull pain that might be a warning sign of a heart attack. Alcohol cause some older people to be forgetful and confused, and these symptoms could be mistaken for signs of Alzheimer's disease (progressive mental deterioration due to generalized degeneration of the brain that can occur in middle or old age, which slowly destroys memory and thinking skill) (Foster and Harriott, 2006).

3.8. Sugars

Many foods, such as milk and fruits, contain naturally occurring simple sugars. These sugars are not harmful to our body, and in fact may contain essential vitamins and minerals. The sugars to be concerned about are added sugars such as glucose, fructose, corn syrup and high fructose corn syrup, which are often added to processed foods. Used sparingly and in moderation, added sugars can enhance the taste of food. However, too much sugar can fill up and displace other more nutritious foods contributing to excess calories and weight gain. These added sugars are found in a lot of foods like granola bars, cereals, sports drinks, soda, dessert foods and processed snack. Elders, best bet to avoid these sugars is to look at the ingredients list, if there is a processed sugar in high up on the list, put that item down and try a healthier alternative (Sarwar *et al.*, 2015).

3.9. Salts

Everyone requires a certain amount of salt, but too much of its amount can increase the risk of high blood pressure and

heart disease. Salt occurs naturally in many foods such as meat, eggs, milk and vegetables, but much of the salt in the diet comes from the salt added to foods by manufacturers or when adding salt ourselves. Sodium is found naturally in foods such as milk, seafood and eggs. Processed foods such as tomato juice, frozen dinners, canned soups, canned fruits and canned vegetables are high in added sodium. People with high blood pressure and certain types of heart disease may be advised by their physicians to reduce the amount of sodium in their diets. For healthy adults, it is recommended not more than three grams (3000 mg) of sodium each day. One and a half teaspoons of salt is equal to 3000 mg of sodium, so go lightly with the salt shaker. Older adults should restrict their intake of high salt foods such as cured meats (including ham, corned beef, bacon and luncheon meats), snack foods (such as potato chips and savory pastries) and sauces (such as soy sauce). Choose reduced salt varieties of foods when shopping, and flavor foods with herbs and spices instead of adding salt (Livingstone and Black, 2003).

4. Nutritional Supplements

The nutrients in our diet help the body to remain healthy as we age. If the diet in adulthood contains a wide variety of foods including whole grain products, fresh fruits and vegetables, dairy products, nuts, seeds, eggs and meat, then persons are probably getting all the vitamins and minerals the body needs. But, it is difficult to eat all those things on a regular basis, especially when confined to the restraints of our busy life. If the persons are worried that they are not getting enough vitamins and minerals because they do not eat enough variety of foods, then try a vitamin that gives to the body about 100 percent of the daily recommended amounts. Healthy adults consuming a healthy and varied diet that includes a variety of foods and at least 5 portions of fruits and vegetables a day should be able to get all the nutrients they need from their food. However, specific supplements may be of benefit for certain population groups, such as pregnant women, older adults and children or if dietary intake is likely to be poor (for those following restrictive diets or recovering from illness). For instance, those persons who aged 65 years and over are recommended to take a vitamin D supplement (10 µg/ day) especially if housebound women of childbearing age are advised to take a folic acid supplement (400 µg/ day) to reduce the risk of neural tube defects in babies. Moreover, calcium supplements may be beneficial for those persons who are at high risk of osteoporosis. Supplements may not be used, however, to replace a healthy, balanced diet and supplements containing high doses of individual nutrients should generally be avoided. Smokers should avoid beta-carotene supplements and older people who regularly eat liver are advised to avoid

taking supplements containing vitamin A of fish liver oils as these contain high levels of this vitamin, because of concerns about a possible adverse effect on bone health (Borum et al., 2000; Jensen et al., 2013).

5. Conclusion

In conclusion, the special attention must be paid to the provision of certain nutrients in the diet of elderly people. The nutritional requirements of older people are generally similar to the general population, however, some nutrients require special attention in older people. Every person has specific energy requirements according to bod needs. Someone who is underweight requires an increase in energy intake and conversely an overweight elderly person requires a decrease in liveliness intake. By the time the people reach adulthood, the majority of our growth and development may be well and truly over, hereby meaning the focus of nutrition can now shift to maintain a healthy and active lifestyle. In doing this, adults may be able to keep the risk of developing age and weight related diseases such as cardiovascular disease and type 2 diabetes to an absolute minimum. A qualified nutritionist can be fully aware of the challenges to which older and elderly adults face such as difficulty in getting to the shops and a loss of appetite, and may be taking these into account so that any changes they would like to introduce in the nutritional program are achievable. Learn how a healthy diet boosts personal mental as well as physical health; understand how aging can affect tastes and eating habits; focus on the whole, minimally processed food that body needs as persons age; differentiate between healthy and unhealthy fats; slowly reduce sugar and salt in diet; find out why eating with others is as important as the food is eaten; and study how to reprogram personal brain so that people require healthier foods. The medications and older age often go together, though medications improve health and quality of life, but some can profoundly affect nutritional needs. So, be sure to consult with the physician or pharmacist as to specific instructions concerning food-drug interactions and directions on when and how to take medications. A qualified nutritionist can be able to identify any specific deficiencies so that they may be corrected and will work with their patient to formulate a nutrition program to suit the patient's individual needs. This may include food and meal recommendations as well as ideas for gentle activities for elderly patients to improve their mobility.

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