



International Day for Older Persons: 1 October 2017

The information explosion in the science of nutrition very often creates the impression that available information is contradictory. Consequently, it is no longer easy to distinguish between fact, misinformation and fiction. The Nutrition Information Centre of the University of Stellenbosch (NICUS) was established to act as a reliable and independent source of nutrition information.

Aging is also associated with changes in nutrient requirements and dietary habits, which increase the risk of various nutritional deficits, especially in poor communities and food insecure households. In poorer communities elderly people, especially women, who share pension income with other household may also be at risk of inadequate dietary intake, as they often skip meals in favour of their grandchildren who can then benefit from the food that is available.

According to the Statistics SA Social profile of older persons 2011-2015 report the elderly population account for 8,1% of South Africa's population, this is a proportional increase of 0,1 of a percentage point compared to 2011 (8,0%). Between 2001 and 2016, the proportion of older persons in the population increased by 0,8 of a percentage point from 7,3% in 2001, this is according to the Social profile of the older persons report released by Statistics South Africa today.

The risk for non-communicable diseases such as hypertension, diabetes, stroke and heart disease in the elderly continues to be on the increase in South Africa. Therefore, the elderly (> 60 years) are a group of people that are usually more dependent on healthcare services than the general public. When malnutrition is prevalent in this group, disease and death rates are likely to increase. Energy and protein deficiencies lead to changes in body composition and functions, such as impaired muscle function, decreased bone mass, delayed wound healing, reduced cognitive and immune function, and anaemia.

We lack national data on the nutritional intake of the elderly population in South Africa. Many factors cause that the elderly are generally considered as a high-risk group of the population for nutritional deficiencies. However little is known about the dietary intake of the South African elderly population. Only small-scale regional studies are available. Research in this area is required to screen for malnutrition in the elderly, gain knowledge on the nutritional intake and prevalence of deficiencies, particularly focusing on poor populations, taking into account socio-economic circumstances, cultural practices and living arrangements.

Why are the elderly at risk for poor nutrition?

Chronic illness, medications, poor dental health and depression are some of the factors that may cause a lack of appetite and reduced food intake. They may also suffer from poor absorption, gastro intestinal malabsorption, chronic pain, poor fitting dentures and changes in taste and smell perception. Elderly persons also have a lower thirst perception and are at high risk to become dehydrated. Furthermore, poverty economic hardship, low levels of education, low functional status and ability to shop for food may all contribute to malnutrition in the elderly.

Social grants have made a difference amongst the poor household in South Africa. Unfortunately, food prices are rising and despite spending almost half of their income on food, poor families are being steadily forced into buying cheaper, less nutritious food – more starch but less protein, vegetables and fruit.

Food purchases determined by food prices, in contrast to nutritional value, tend to be energy-rich and nutrient-poor and include foods like refined cereals, added fats and added sugars which provide a higher dietary energy at a low cost, but with a lower content of other nutrients. A typical “low quality” meal consists of mostly mealie-meal, bread or rice, with very little animal protein or vegetables. The meal is also usually prepared with cheap oil and lots of salt. This means that South Africans, even those who are overweight, experience high levels of nutrient deficiencies, including those relating to vitamin A, iron and other minerals and vitamins.

Social grants are also used for non-food needs: even if they could cover the full cost of a nutritious diet, poor people have other needs for cash apart from food. A study of how social grant money is spent by women recipients in the Western Cape found that food was the first priority for recipients of the Child Support Grant, Older Person’s Grant and Disability Grant. Education costs were second priority, followed by clothing and transport. For Old Age Grants

and Disability grant recipients, funeral cover policies were second priority, followed by education.

Young adults in poor communities should support and care for the elderly that are sick and malnourished. They should assist them to visit their local clinics for health and nutrition screening and intervention. The aim of the Integrated Nutrition Programme of South Africa is to address malnutrition. They should also actively seek help at Non-Government Organisations that are involved in feeding and supporting the elderly in their communities.

Nutrition considerations for older people and/or their caregivers.

Recommendations and conclusions based on the available literature:

- Drink lots of clean safe water. Stay hydrated. Among other things, dehydration causes tiredness, dizziness, constipation, poor mood and confusion. As a general guide, *about* 8 glasses a day should be adequate.
- Choose a variety of healthy foods Avoid high- energy-low-nutrient foods, which are foods with lots of energy (sugar and fat) but few nutrients, such as chips, cookies, cool drinks and alcohol.
- Aim for five servings of fruits & vegetables each day. These can be fresh, frozen, tinned, or dried.
- Great sources of protein include lean meat, poultry and fish. Tinned sardines, tuna and pilchards are packed with heart-healthy omega 3 fats. Eating beans, eggs and nuts is also a good way of boosting the protein in your diet.
- Pulses and legumes are rich and affordable sources of good quality protein, carbohydrates, dietary fibre, vitamins and minerals and phytochemicals. They are low in energy, fat and salt. It can improve diet quality and protect against lifestyle diseases.

Choices for a Restricted Budget: Getting Better Value for Money

- Dried legumes are not only good substitutes for meat, fish, eggs or cheese, but can be used to make foods go further (meat extenders).
- It is not necessary to eat meat everyday. Meat alternatives, which are more affordable can be used as substitutes or used to bulk up meals.
- Add cooked dried beans to stewed meat.
- Mix mashed, cooked dried beans with mince or fish to make meat loaf or fish cakes or meatballs.
- Soya beans have been processed to form textured soya proteins that resemble meat in taste and look, and can therefore be used as meat substitutes.
- Textured soya protein products (e.g. Toppers, Knorrox and Imana) can be used to stretch mince in bobotie, fricadels and other meat or chicken dishes.
- One kilogram of dried beans yields 33 portions, while 1 kilogram meat yields 9 portions (1 cup dried beans, raw yields \pm 8 cups cooked).

- Use less salt. Too much salt in the diet can contribute to high blood pressure, which in turn can lead to stroke or heart disease.
- Drink 3 cups of fat-free or low-fat milk throughout the day. If you cannot tolerate milk try small amounts of yogurt, butter milk, hard cheese or lactose-free foods. Drink water instead of sugary drinks.
- Elderly consuming less than 6300kJ (1,500 kcal/day) may need multivitamin and mineral supplementation at RDA levels.
- If poor appetite or low food availability is a problem, meal replacement drinks or nutrient dense foods such as enriched or fortified foods should be recommended. Alternatively, multivitamin and mineral supplements are recommended. Single nutrient supplementation (with the exception of calcium) is not recommended if there is not a clinical deficiency.
- Chronic Diseases may increase the need for supplementation: These include illnesses such as diabetes, Crohn's disease, HIV, and ulcerative colitis.
- Elderly people who smoke cigarettes or overuse alcohol may need additional nutrients.
- Medications may increase the need for certain nutrients – these should be addressed by the medical professionals prescribing the drugs.
- Calcium supplementation at RDA levels (1200mg) is indicated in elderly patients who do not consume 3 portions of dairy per day. Calcium citrate is more reliably absorbed in achlorhydric patients, and so may be more effectively.
- Supplementation with vitamin D-3 (400 IU to 800 IU) plus calcium (500 mg to 1,200 mg) may be beneficial in reducing the incidence of fractures in institutionalized older adults.
- Healthy postmenopausal women and adult men generally should not take iron supplements.
- Smokers should avoid supplementation with beta carotene.

Access the South African Food Based Dietary Guidelines and recommendations for healthy eating and weight loss at: <http://www.sun.ac.za/english/faculty/healthsciences/nicus/how-to-eat-correctly>.

For further, personalized and more detailed information, please contact NICUS or a dietitian registered with the Health Professions Council of South Africa

References from the scientific literature used to compile this document are available on request.

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