

Seniors Eating Well

Background nutrition notes



Easy Recipes
for One or Two



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SENIOR CHEF
Cooking classes for older adults

active
CANTERBURY



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Introduction

These background notes provide you with all the information you need to teach Seniors Eating Well (SEW). The notes provide back-up to the information included in the module plans. As a facilitator you are the best judge of how much information your group will need.

The four modules are designed to cover key nutrition issues for older people. You are not expected to advise on specialist dietary issues. If you have any participants that require specific dietary advice suggest they contact their GP team. Links to Canterbury HealthInfo are also provided for further information.

The notes are divided into sections according to the module.

You might want to use the background notes in some of the following ways:

- By reading through the relevant session information as a way of preparing for teaching.
- By filling any gaps in your own nutrition background or jogging your memory.
- By having some facts and figures ready to include in group discussions when you're teaching.
- By using them to supplement the information that is included in the session teaching resources.
- By using them as a first point of research when you're responding to questions that come from the group.

The ageing population

In New Zealand both life expectancy figures and the proportion of older people in the population are steadily increasing.

There has been a steady increase in the average age of our population—one of the biggest ongoing challenges for our health system. Canterbury has the largest total population aged over 65 in the country. The latest DHB population numbers show 15.7% of our population are aged over 65, a total of 87,560 people. By 2026, one in five people in Canterbury will be older than 65.

The proportion of the Canterbury population (aged 75+) living in their own home is 88.1%. This remains a positive trend particularly as our older population continues to grow, with our over 75-year-old population increasing by 16% over the last five years.

The process of ageing is often associated with some decline in functional capacity. As the proportion of older people in the population increases, the health system is faced with the challenge of responding to the increased demand for health care and disability services for this group.



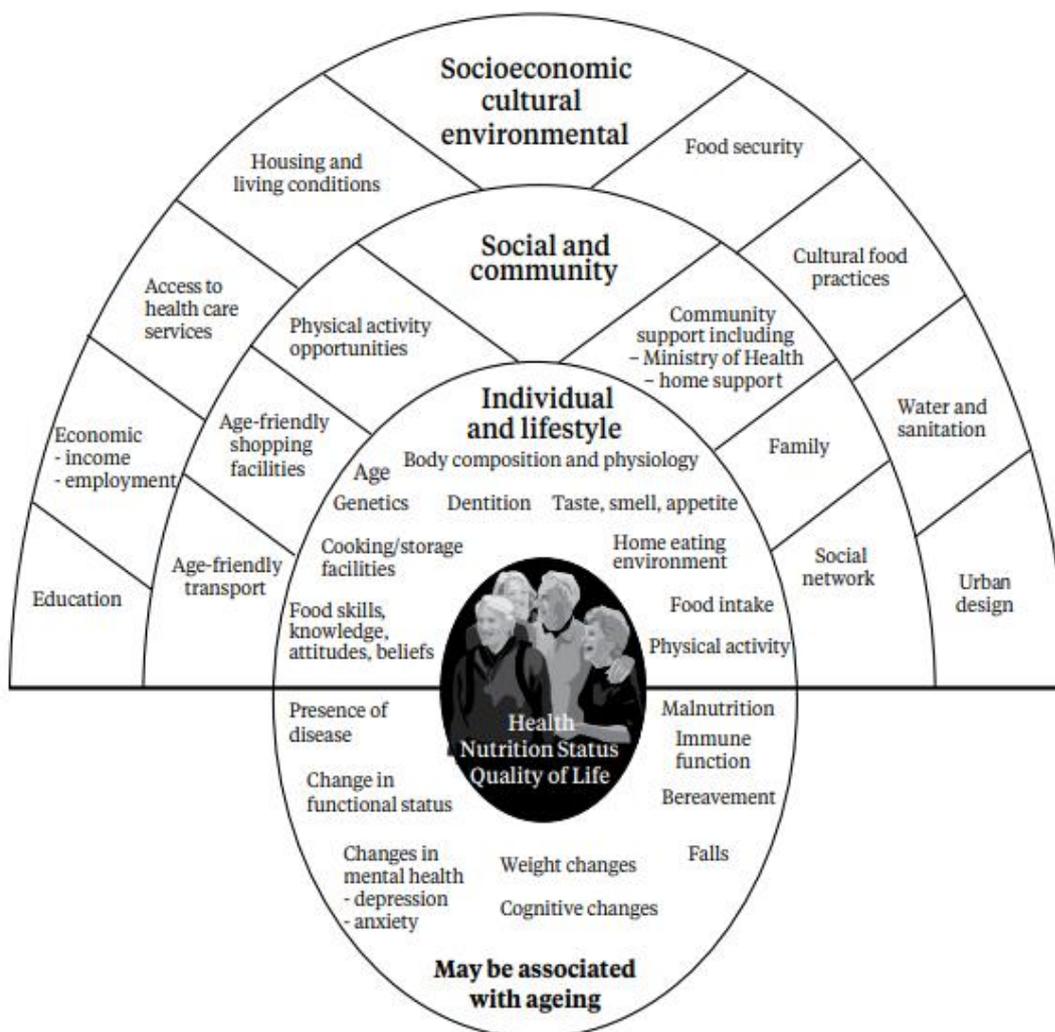
Most older people in Canterbury aged 65 years and over are fit and healthy and live independently in the community. However, the challenge is to keep these people well, living independently and with a good quality of life. Studies have shown that nutritional well-being and social connectedness in older people is an integral component of health, independence and quality of life.

Definition of an Older Adult

In general, a person is classified as an 'older adult' when they reach 65 years of age. Due to lower life expectancy and earlier experience of age-related illness among Māori and Pacific peoples, an age group of 50+ is sometimes used for comparison of statistics for older Māori and Pacific peoples.

What affects the nutrition status of older people?

Health is primarily determined by social, cultural, economic and environmental influences. Individual and lifestyle factors do play a part but not as major as once thought. This figure illustrates the many factors that may affect the nutritional status of older people:



Nutrition and ageing

Compared with younger people, most older people **need less energy (kilojoules or calories) but the same amount or more protein, vitamins and minerals**. Older adults have decreased energy requirements because of decreased basal metabolic rate and decreased physical activity. Older adults need more protein (meat, fish, chicken, eggs, milk and milk products, nuts) to minimise loss of muscle mass and other functional proteins. Many may need extra protein as requirements increase with illness, stress, infection and surgery.

For many older adults getting adequate nutrients from their diet can be challenging, given their reduced need for energy. This means older people need to maximise their intake of key nutrients by carefully selecting the foods that make up their relatively low intake. In other words, **older people need small nutrient dense meals!**

AGE-RELATED CHANGES THAT INFLUENCE NUTRIENT REQUIREMENTS	
Age-related changes	Impact on nutrient requirements
Decrease in muscle mass	Decreased need for energy, increased need for protein
Decrease in bone density	Increased need for calcium and vitamin D
Decrease in immune function	Increased need for vitamin B6, vitamin E, zinc and protein
Decrease in gastric acid	Increased need for vitamin B12, folic acid, calcium, iron and zinc
Decrease in skin capacity for vitamin D synthesis	Increased need for calcium and vitamin D
Decrease in uptake of vitamin A by the liver	Decreased need for vitamin A

Maintain a healthy weight

Encourage older people to maintain a healthy weight. Being under or overweight increases the risk of developing health problems.

Health issues related to being above a healthy weight is predominantly a problem among younger adults (<65 years of age) and children. Being above a healthy weight is less prevalent among older people and particularly among the very old. Therefore, **most older adults need to maintain their current weight.**

Older people who are most likely to benefit from weight loss are those who are above a healthy weight **and** have coronary heart disease, type 2 diabetes and/or a functional impairment such as arthritis. Studies have shown that for this group even a modest weight loss of 3-4 kg over a period of 1-3 years is beneficial. However, in order to minimise loss of bone density and muscle mass weight loss, there needs to be a focus on foods that promote health (wholegrains, vegetables and fruit, and protein sources such as legumes, nuts, milk and milk products, lean meat and chicken) **and** physical activity.

Seniors Eating Well is health focused and encourages cooking with foods that look after our health. It does not promote dieting or restrictive eating. Emphasis also needs to be placed on social connections and enjoying meals with others. Both are important factors in preventing weight loss and malnutrition.

Module One: Bone Health

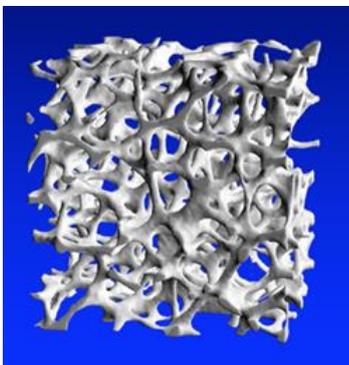


When a person's bone density drops below a specific level a diagnosis of osteoporosis will be made.

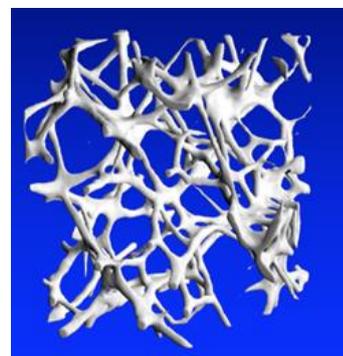
Both women and men suffer from osteoporosis – two-thirds of hip fractures worldwide occur in women and one third in men.

Generally, osteoporosis and the fractures that it causes occur in women and men aged 50 years and over.

To reach optimal peak bone mass and continue building and maintaining bone tissue as you get older, there are several factors you should consider.



Healthy Bone



Osteoporotic bone

Calcium

Calcium is an important component of bone. Therefore, it is important that we eat sufficient calcium to maintain our skeletons, but there is no evidence that taking more than this is helpful. There is controversy regarding what is an adequate intake, recent evidence suggesting that as little as 500 mg/day (2 servings of milk products) is sufficient, though some experts still recommend 1000-1300 mg/day. Many older people find it difficult to take 1000-1300 mg/day in their diets, so use supplements. However, there are now several safety concerns related to calcium supplements, and the consensus is that calcium from the diet is to be preferred. People eating 2-3 servings of milk and milk products daily are likely to be receiving enough calcium.

Milk and milk products

Milk and milk products such as cheese, yoghurt and custard are excellent sources of calcium. The calcium concentration in milk products is much greater per serve than many other calcium-containing foods. Importantly, for the average New Zealand adult, the convenience and affordability of milk products makes them an excellent way to meet calcium requirements. They are also important sources for B12 and protein – key nutrients for older-adult health.

One serving is –

- 1 cup of milk (250ml)
- 1 pottle of yoghurt (150 grams)
- 2 slices of cheese (40 grams)
- 2 scoops of ice cream (140 grams)

Commonly heard arguments against milk products

“Calcium is not absorbed from milk”

- Calcium availability can differ substantially depending on whether it is bound to other nutrients, whether the food contains absorption inhibitors or on the type of calcium added (to calcium enriched foods such as soy milk or breakfast cereal).
- Calcium in milk is bound to proteins that must first be broken down before it is available to the body. Phytates in seeds/nuts and oxalates in green vegetables reduce calcium absorption. In enriched foods, calcium carbonate is absorbed better than tri-calcium phosphate.
- It is true that the availability of calcium is higher in broccoli, bok choy and kale than it is in milk but because the calcium concentration is so much lower, the number of servings required to obtain the equivalent amount from milk is still higher and may not be practical for most people. For example, to meet the RDI for older adults you would need 2.6 cups of yellow-top milk, 3.5 cups of trim milk, 4 cups of soy milk, 4.5 cups of bok choy, 8.5 cups of broccoli and 30 cups of spinach. Non-milk calcium-rich foods are a valuable part of the diet. They help increase overall calcium intake and are rich in other important nutrients. However, relying on these as the main contributors to dietary calcium is likely to result in insufficient calcium (and protein) intakes.

“The protein from milk makes your blood more acidic and therefore leaches calcium from your bones”

- This argument would then need to apply to all protein and not just protein from milk. Protein is an essential part of the diet.
- Very high intakes of protein (such as you would expect from a professional rugby player or body builder) may result in small bone calcium losses. However, an average intake of protein in conjunction with adequate calcium intake is not associated with calcium bone losses or increased fracture risk.
- Protein is needed for bone formation. Increasing protein intake in adults with low protein intake reduces fracture risk.

“Countries with the highest milk intake also have the highest rates of osteoporosis/hip fracture”

- This finding comes from observational studies which are not a reliable means of drawing conclusion because they are not indicative of causation.
- Inhabitants of developed countries that consume more milk products also are more likely to consume western diets high in sugar and saturated fat, more likely to spend less time outside and to get less physical activity (which is one of the key determinants of bone health).

Vitamin D

Vitamin D is a substance made in the skin as a result of sunlight exposure. It facilitates absorption of calcium from the diet. When vitamin D levels are very low, mineralisation of bone is impaired. Individuals who never go outside (e.g. frail elderly), those who are veiled, and those who have dark skin are at risk of vitamin D deficiency, so might benefit from a vitamin D supplement. The use of supplements by those who are not deficient does not improve bone health. Osteoporosis New Zealand recommends the following:



To preserve bone health throughout life, encourage all patients to:

- Perform regular weight-bearing exercise
- Eat a balanced diet
- Limit alcohol (≤ 2 drinks/day; ≥ 2 alcohol-free days/week)
- Stop smoking
- Maintain healthy weight (BMI 20–25 kg/m²)
- Have adequate sun exposure

Common questions:

What if I don't like plain milk?

- Replace a cappuccino or flat white with a latte or hot chocolate, as these have a large portion of milk. Make a latte at home. Add half a cup of hot milk to half a cup of strong coffee.
- Drink flavoured milk or flavour plain milk with Milo or Ovaltine.
- Make a milk Milo or hot chocolate.
- Make a fruit smoothie.
- Enjoy a milk pudding for dessert.
- Milk based soups or “creamy soups” are good on cold days.

What if I don't drink milk or milk products?

For people that avoid milk and milk products, there are alternative sources of calcium:

- Soy milk fortified with calcium
- Fish such as canned sardines and salmon eaten with the bones.
- Mussels, fresh or smoked.
- Tofu made with added calcium.
- Almonds (other nuts do not have as much calcium).
- Green vegetables such as broccoli, silverbeet and spinach.

The bottom line is it's important to eat a wide variety of foods every day.

There is a section on Osteoporosis and Bone Health on HealthInfo. If a participant has very specific questions refer them here or back to their GP team

<https://www.healthinfo.org.nz/index.htm?Osteoporosis.htm>

Module Two: Fibre & Fluids



Fibre

Wholegrain cereals, legumes, vegetables and fruit are the main sources of dietary fibre. Some older people may not consume some foods that are good sources of dietary fibre due to problems with chewing. Remind participants that dietary fibre is not destroyed by cooking. They may not be able to manage raw vegetables and fruit but can eat them cooked.

Adequate dietary fibre is essential for a healthy gut and reducing the risk of chronic diseases such as heart disease, certain cancers and type 2 diabetes.

How to include fibre in your diet

Start the day with a high fibre breakfast cereal – try Weet-Bix, bran-based cereals or porridge.

Choose wholegrain, wholemeal breads.

Have wholegrain crackers or wholemeal bread instead of biscuits.

Check food labels for fibre content on the packet of bread, cereals and crackers by reading the nutrition information panel. Choose foods with at least 5 grams of fibre per 100 grams of food.

Use wholemeal flour and/or rolled oats in baking and cooking.

Add extra vegetables to soups and casseroles.

Add fruit to biscuits, scones, cakes and muffins.

Add lentils or split peas to soups and casseroles.

Try baked beans or a salad made from canned mixed beans.

Try fruit and vegetables with their skins on. Wash them well first!

Choose high fibre snacks. Have fruit (raw, stewed or dried). Kiwifruit and prunes are particularly helpful.

When increasing fibre intake, it is important to ensure adequate fluid intake.

The use of unprocessed bran is not recommended as a way to increase fibre intake as it can interfere with calcium absorption.

Fluid

The risk of dehydration is much higher in older people for a number of reasons:

- The skin becomes thinner causing more water to be lost via the skin.
- The thirst mechanism is not as sensitive, resulting in older people not feeling thirsty.
- The kidneys do not work as effectively.

We lose around 2.5L of fluid per day (varies widely). This loss needs to be replaced with fluid consumption. Older adults should drink at least 8 cups of fluid per day. This can include water, milk, fruit juice/drinks, hot drinks, custard and soup. Tips to ensure a good fluid intake include:

- Put a jug of water in the fridge and aim to drink this by dinnertime.
- Try flavouring water with lemon slices, mint leaves or a little lime cordial.
- Take medications with a full glass of water.
- Use mugs for hot drinks. Mugs hold more than cups.
- Many foods have a high fluid content e.g. soup, custard, jelly, ice blocks and juicy fruit, count these as part of fluid intake.
- To lessen the need for a night time visit to the toilet, avoid drinking the bulk of fluid intake in the evening.

Incontinence problems

The following tips may be helpful for people with incontinence or the need to pass urine frequently.

- Avoid tea, coffee, Coca Cola and alcohol as these cause frequent urination.
- Drink sufficient fluids. More concentrated urine irritates the bladder and increases the desire to go to the toilet.
- Use night lights so that going to the toilet is easier and safer. A commode chair can also be useful.
- Talk to a continence adviser for more advice.

For further information participants can go to HealthInfo: Are you drinking enough?

<https://www.healthinfo.org.nz/Are-you-drinking-enough.htm>

Module Three: Protein Power



Protein

Proteins are necessary to build and repair tissue, in hormone, enzyme and antibody production, and for many other body functions.

Inadequate protein intake in older people is associated with increased skin fragility, decreased immune function, poorer healing, and longer recuperation from illness.

Protein requirements for older adults are 25 percent higher than for younger adults in order to maintain muscle mass.

Which foods provide protein?

Good sources include:

- Fish
- Chicken
- Milk and milk products
- Meat
- Eggs
- Nuts
- Legumes – lentils, dried beans and peas and baked beans
- Seeds
- Soya products e.g. soya milk, tofu, tempeh

New research shows that as well as needing more protein compared with younger people, **protein intake should be evenly distributed over the three meals of the day.**

Older people typically include protein foods such as a serving of meat, chicken or fish at their main meal. However, many do not include protein foods at breakfast or their lunch or dinner meal. Therefore, encourage participants to include protein foods such as milk, yoghurt or eggs at breakfast. Protein foods to encourage at lunch or dinner meal include nut spreads, cheese, eggs,

beans or fish.

Handy tips for older people to achieve a good protein intake

- Include protein foods at all meals
- Include protein foods at snack times: cheese and crackers, small handful nuts, milky drink, pottle of yoghurt, peanut butter on toast etc
- Make porridge with milk instead of water
- Add a yoghurt to breakfast or lunch
- Sprinkle nuts or seeds over breakfast cereal, salads or stir-fries
- Add grated cheese to vege soups, baked beans and egg dishes
- Add boiled eggs, cheese, seed, nuts or cold meat to salads

Module Four: Smart Snacking



Should everyone snack?

The jury is still out on whether it is best to snack between meals or stick to three meals a day. For some people three meals a day works fine. For others, snacking is a way of life. It really depends on your age, health, and weight and activity level.

Snacking can be helpful for people with small appetites or anyone who has an active lifestyle. Most people trying to lose weight find that they are more successful if they have small healthy snacks between meals.

What are the benefits of snacking?

- Snacks can supply energy during periods of the day when tiredness may set in
- Snacks help to avoid hunger that may lead to overeating at meals
- Smart snacking on a wide variety of nutritious foods can help maintain a healthy weight
- Snacking can help increase your metabolic rate and stimulate your body to work more efficiently
- Snacks can provide essential nutrients such as protein, vitamins, minerals and fibre

Many older people will benefit from having a small snack between their meals. Healthy snacks can be a good way to get extra nutrients into their day.

An ideal snack is one which provides essential nutrients such as protein, vitamins, minerals and fibre but without too much added fat, sugar or salt. This includes fruit and vegetables, nuts, wholegrain bread, lean meats, fish and low fat milk and milk products. Although potato chips, lollies, chocolate, cakes and biscuits are often seen as “snack foods” they are really occasional treats, rather than everyday snack choices. They are energy dense and contain few nutrients.

The healthy snack choices activity in this session encourages participants to think of small nutritious snacks they can have at home. As older people need a lot more protein than most younger people, adding protein foods at snack times will help to boost their daily protein intake.

Examples of healthy snacks that include protein:

- Peanut butter on toast
- Tuna or salmon on toast or crackers
- Low fat milky drink, e.g. fruit smoothie or milky coffee or Milo
- Yoghurt or low fat ice-cream and fruit
- Small handful of nuts
- Wholegrain crackers with chutney and Edam cheese
- Guacamole or hummus with vegetables

What about older people who are underweight?

Older people who are underweight may need to include more energy dense foods at snack times to help them gain weight. So looking at the snack choices above, low-fat milk (green top) and milk products should be replaced with full-fat (dark blue top) varieties. Yoghurt could be replaced with ice-cream or cream.

Useful information can be found on Canterbury HealthInfo

<https://www.healthinfo.org.nz/index.htm?How-to-overcome-poor-appetite.htm>

<https://www.healthinfo.org.nz/Oral-nutrition-supplements.htm>

<https://www.healthinfo.org.nz/How-to-gain-weight.htm>