

Nutrition and Swallowing Guidelines

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Summary	The Nutrition and Swallowing Guidelines provide support workers with guidance for supporting a person to maintain or achieve a healthy lifestyle through good nutrition, involvement in meal preparation, shopping, and understanding food safety.
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The subsequent final version of the first revision of a document becomes version 1.1.

Each subsequent revision of the final document increases by 0.1, for example version 1.2, version 1.3 etc.

Revision history

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1 Introduction

The ADHC Nutrition and Swallowing Guidelines (the Guidelines) embody the principles of legal and human rights found in the New South Wales Disability Service Standards (the Standards), the commitment to deliver responsive services to Aboriginal people under the Aboriginal Policy Statement (the Statement), and the person centred guiding principles of the ADHC Health and Wellbeing Policy.

The Guidelines are provided to support people with disability to exercise their rights and entitlements under the Standards and the Statement. The Guidelines describe how ADHC supports people to have good nutrition and to understand the consequences of poor nutrition. The Guidelines contain alerts to risks associated with swallowing difficulties and how these are managed under the guidance of the person's 'usual' general practitioner (GP)¹ and other health specialists.

The Guidelines can be used as a stand alone resource or in conjunction with a person's prescribed **Mealttime Management Plan** or **Enteral Nutrition Plan**.

The Guidelines provide information in the following areas:

- Good nutrition and exercise – information relating to healthy diet, the five food groups and exercise.
- Supporting individual nutrition and health needs – information relating to body weight, culture, allergy and digestive health.
- Planning healthy menus and meals – how to plan a menu and portion sizes.
- Food budgeting and shopping guidelines – how to budget and shop wisely.
- Food safety and hygiene – how to prepare and store food safely.
- Texture modified foods and fluids – types of diets and techniques for modifying foods and fluids.
- Enteral Nutrition – how to support a person who receives enteral nutrition.
- Mealttime support – how to provide physical support to a person at mealtimes.
- Healthy take away and restaurant food – how to make healthy choices when eating out.
- Oral health – how to support a person with oral hygiene.
- Nutrition for diabetes – how to provide a healthy diet for a person with diabetes.
- Nutrition for osteoporosis – how to provide a healthy diet for a person with osteoporosis.

¹ [Medicare](#) defines the person's 'usual' GP as: 'The GP (or a GP in the same practice) who has provided the majority of services to the patient in the past 12 months, and/or is likely to provide the majority of services in the following 12 months'.

- Nutrition for gastro oesophageal reflux disease (GORD) – how to support a person with GORD.
- Nutrition for wounds – how to provide extra nutrition requirements for a person with open wounds.

Refer to the Nutrition and Swallowing 'Tools and templates' for copies of blank templates.

2 Good Nutrition and Exercise

2.1 How to achieve a balanced diet

Good nutrition is essential for health, growth and wellbeing. Maintaining good nutrition is achieved through eating a healthy balanced diet. This consists of a wide variety of foods which provide all of the essential nutrients and are sourced from all of the 5 food groups as follows:

1. Grain (cereal) foods: mostly wholegrain and/or high cereal fibre varieties
2. Vegetables and legumes
3. Fruit
4. Lean meats, poultry, egg, tofu, nuts, seeds and legumes/beans
5. Milk, yoghurt, cheese and yoghurt and/or alternatives, mostly reduced fat.

It is important to eat a balanced diet to prevent nutrition related conditions. When food is consumed above a person's requirements, there is an oversupply of energy which may increase the risk of illness and disease. For example, excess food not used as fuel for the body is converted to and stored as fat. This generates an increase in body mass (weight gain) and further increases the risk of numerous other lifestyle diseases such as diabetes, heart disease and hypertension.

2.1.1 Include a variety of foods

Variety is the key to good nutrition. Each food group provides different nutrients, vitamins and minerals that are essential in the daily diet. It is important for a person to have three balanced meals a day to ensure they obtain the essential nutrients and have enough energy. This means eating breakfast, lunch and dinner everyday.

Not only is variety necessary for good health, it also makes food interesting. Different foods provide a variety of colours, tastes, smells and texture which aid in making food more enjoyable.

2.2 What are the essential nutrients?

There are important essential nutrients provided through food which everybody needs daily.



2.2.1 Carbohydrates

Carbohydrates provide energy for the body to perform daily activities. They are found in a wide variety of foods in one of two forms:

- **Sugars:** found naturally in foods such as fruit and dairy or added in processed foods such as jams, soft drinks, cakes and lollies
- **Starches:** found in breads, cereals, pasta, rice and some vegetables such as potato, corn and parsnip

Fibre is a special type of carbohydrate found in plant foods. It is essential for digestion and healthy bowel movements as it passes through the gut all the way to the colon. Foods high in fibre include wholemeal breads and wholegrain cereals, fruits and vegetables.

Food containing carbohydrates should be part of every meal during the day. High fibre carbohydrates are best and sugars, especially in the form of highly processed foods such as cakes, biscuits and sweets, should be kept to a minimum.

2.2.2 Protein

Protein is essential to help the body grow and repair. It forms a major part of the body including our muscles (and heart), skin, hair, blood, enzymes and hormones. Good sources of protein come from both animal and plant based foods:

- **Animal sources:** beef, pork, lamb, chicken, fish, eggs and dairy foods
- **Plant sources:** legumes (beans, chickpeas and lentils) and nuts



2.2.3 Fats

A healthy balanced diet also includes consuming foods with the recommended amount of fat. Fats provide a source of energy for the body, helping a person to feel full and aiding in the absorption of essential vitamins.

Fats in the food we eat can be either:

- **Saturated fat:** such as butter, cream, meat fat, lard, coconut milk/cream and foods containing coconut or palm oil (many commercial pastries, cakes and biscuits)
- **Unsaturated fat:** found mainly in plant foods such as olive oil, canola oil, nuts and avocados and in oily fish such as herring, salmon and trout



Remember: it is important the person does not eat too much of any type of fat.

Although replacing food high in saturated fat with unsaturated options is a healthy alternative, eating too much can still lead to an imbalanced intake and cause unwanted weight gain.

2.2.4 Vitamins and Minerals

Vitamins and minerals play an important role in a wide range of chemical reactions necessary to ensure the body stays healthy. They include energy, metabolism and nerve and muscle function. A balanced and varied diet provides all of the vitamins and minerals required for good health.

Vitamins and minerals are required in small amounts and are found in a wide variety of foods across the 5 food groups. It is best to obtain the essential vitamins and minerals by eating a wide variety of foods each day. However, some people may require prescribed supplements to treat health conditions.

Vitamins are classed as either water soluble or fat soluble. Water soluble vitamins are not stored in the body whereas fat soluble vitamins can be.

Water soluble vitamins	Fat Soluble vitamins	Major minerals
Vitamin B1 – Thiamine	Vitamin A	Calcium
Vitamin B2 – Riboflavin	Vitamin D	Iron
Vitamin B3 – Niacin	Vitamin E	Magnesium
Vitamin B5 – Panthothenic Acid	Vitamin K	Phosphorus , Potassium
Vitamin B6 – Pyridoxine		Sodium
Vitamin B12 – Cobalamin		Zinc
Folate / Folic Acid		Chlorine
Vitamin C		



2.2.5 Water



The human body is composed of approximately 60% water.

To ensure the body can function at its peak, it is essential for the person to remain hydrated with adequate fluid intake.

Insufficient fluid intake can cause health problems such as overheating, constipation and agitation.

Long term effects of insufficient fluid include urinary tract infections and kidney disease.

There are many sources of fluids which contribute to a person's overall daily intake, including milk, juice and tea.

The best source of fluid for the body is water.

The human body loses about 2 litres of fluid each day through bodily functions, such as sweating and urinating, therefore it is essential that fluids are replaced.

Drinks containing caffeine such as tea, coffee and cola, can further increase fluid loss.

It is important to ensure a person drinks adequate fluids, especially in hot weather.

A general guide to adequate fluid is the colour of a person's urine. Pale to clear urine is a sign of adequate hydration while dark yellow urine is a sign they are not drinking enough fluid.

As a general guide, adults should be consuming 6-8 glasses or approximately 1.5 to 2 litres of fluids per day, and minimal caffeinated drinks.

Not all the recommended fluid intake has to be water.

The following fluid intake for a 24-hour period would meet the guidelines:

- 1 cup of milk (on cereal and in tea/coffee)
- 1 glass chocolate milk
- 2 cups of tea
- 1 cup coffee
- 2 glasses of water.

2.3 Essential nutrients at a glance

Good nutrition is achieved by eating a healthy balanced diet which includes all essential nutrients.

Nutrient	Function	Source
Carbohydrate	Provide energy	Sugar (fruit, dairy, processed foods) Starches (breads, cereals, pasta, rice and some vegetables)
Protein	Help the body grow and repair	Animal (beef, pork, lamb, chicken, fish, eggs and dairy) Plant (beans, chickpeas, lentils and nuts)
Fat	Provide energy and aids in the absorption of essential vitamins.	Saturated (butter, cream, meat fat, coconut oil and palm oil) Unsaturated (olive oil, canola oil, nuts and avocados and herring, salmon and trout) Do not eat too much fat and always choose unsaturated.
Vitamins and minerals	Energy metabolism and nerve and muscle function.	Water soluble vitamins (B group and vitamin C) Fat soluble vitamins (vitamins A,D,E,K) Minerals (calcium, iron, sodium, potassium)
Water	Ensure our bodies can function at their peak and avoid health concerns such as overheating, constipation and kidney disease	Tap water, bottled water, sparkling water, tea, juice and milk.

2.4 What are the food groups?

The Australian Guide to Healthy Eating² (2012) has been developed by food and nutrition experts on behalf of the National Health and Medical Research Council and the Australian Government Department of Health and Ageing.

The Australian Guide to Healthy Eating is a food selection guide which visually represents the proportion of the five food groups recommended for consumption each day³.

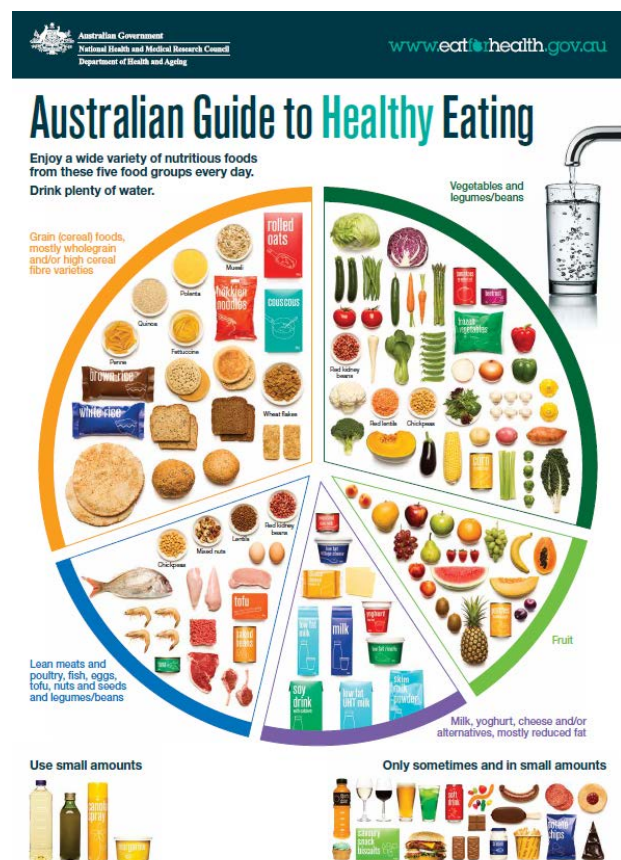
The food groups are as follows:

1. Vegetables and legumes/beans
2. Fruit
3. Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties
4. Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans
5. Milk yoghurt cheese and/or alternatives, mostly reduced fat.

Other foods such as chips, lollies, cakes, chocolate and alcohol are to be only consumed sometimes and in small amounts.

Margarines and oils are also only to be consumed in small amounts.

Intake of plenty of water is encouraged daily.



² <http://www.eatforhealth.gov.au/guidelines/australian-guide-healthy-eating>

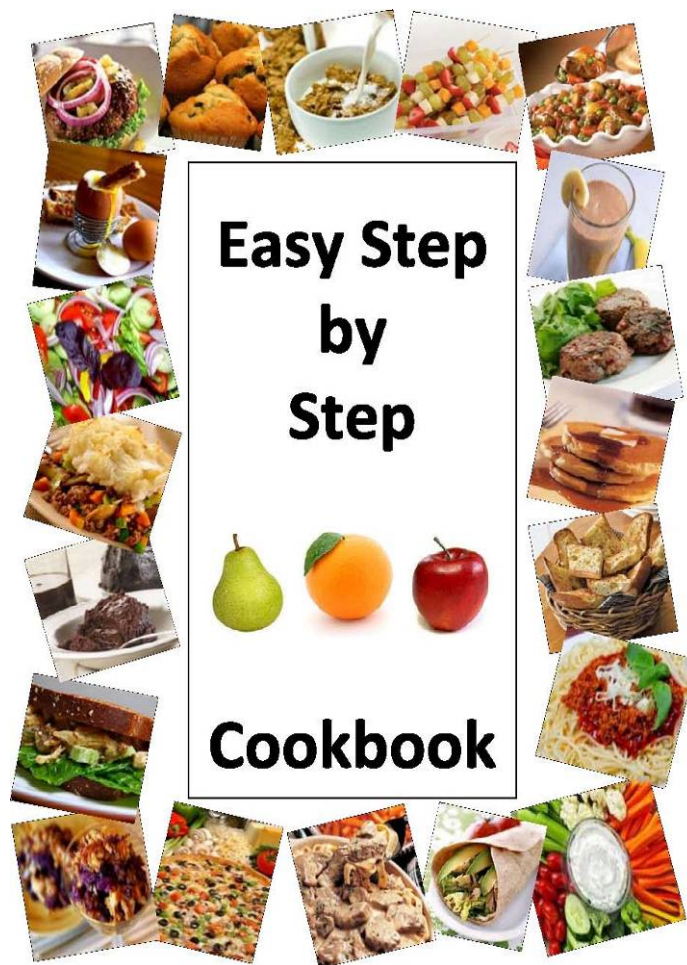
³ <http://www.eatforhealth.gov.au/guidelines/australian-guide-healthy-eating>

2.5 Preparing meals using the five food groups

2.5.1 Easy Step by Step Cookbook

The *Easy Step by Step Cookbook* (the Cookbook) was created to assist support workers in meeting Australian dietary requirements, and ensure they are able to prepare meals which contain nutritious foods from all food groups.

A copy of the Cookbook was supplied to every ADHC group home and some centre based respite services in 2011.



The Cookbook was developed by Gillian Woodward, accredited practising dietitian with students from the University of Newcastle in consultation with people with disability.

The Cookbook contains 64 healthy, balanced and affordable recipes based on a two week menu cycle.

All recipes have been designed to be low fat (especially saturated fat), moderate in sugar and salt, and contain some fibre.

The cookbook also comes with a set of recipe cards making it easier for individuals to make choices about meals.

There are references throughout this manual marked with an asterisk (*) which direct you to a particular recipe in the Cookbook to assist with increasing nutrition.

Enjoy using the Cookbook which contains healthy, simple, fresh and delicious recipes and menus, with easy step by step instructions and pictures to make food preparation fun and easy.

Hard copies of the Cookbook are no longer available, however you may obtain an electronic copy of the Cookbook from Lee-Anne McKinnon by emailing her at the below address.

Email: lee-anne.mckinnon@newcastle.edu.au

2.6 Breads and cereals

What foods are in this group?

Grain (cereal) foods, mostly wholegrain, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley.



2.6.1 How much bread and cereals should a person have daily?

How many serves should a man have?	19-50 years:	6
	51-70 years:	6
	>70 years:	4 ½

How many serves should a woman have?	19-50 years:	6
	51-70 years:	4
	>70 years:	3

What is 1 serve?	1 slice of bread or 1/2 a medium roll or flat bread (about 40g)
	1/2 cup cooked rice, pasta, noodles
	1/2 cup cooked porridge or polenta
	2/3 cup breakfast cereal flakes (30g) or 1/4 cup muesli (30g)
	3 crispbreads
	1 crumpet (60g) or 1 small English muffin or scone (35g)
	1/2 cup cooked barley, buckwheat, semolina, cornmeal, quinoa
	1/4 cup flour

2.6.2 What would the person's diet look like?

Example 1

How many serves of breads and cereals should a 33 year old man have every day?

A man aged between 19 and 50 years old should have 6 serves of breads and cereals every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	$\frac{2}{3}$ cup All-Bran® breakfast cereal with milk 1 slice of multigrain toast with baked beans	2
Lunch	1 sandwich with 2 slices of multigrain bread and salad	2
Dinner	1 cup of pasta with meat and vegetables	2

Example 2

How many serves of breads and cereals should a 58 year old woman have every day?

A woman aged between 50 and 70 years old should have 4 serves of breads and cereals every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	$\frac{2}{3}$ cup All-Bran® breakfast cereal with milk OR 1 slice of multigrain toast with baked beans	1
Lunch	3 crisp breads with avocado and tomato	2
Dinner	$\frac{1}{2}$ cup of brown rice with meat and vegetables	1

2.6.3 How can the person increase breads and cereals in their diet?

Breakfast:

- Add unprocessed oatbran or wheat germ to breakfast cereals
(Such as Weet-Bix™ or porridge).

Lunch:

- Try different types of bread when making sandwiches
(Such as rye, rolls, focaccia, pita breads, lavash and other flat breads).
- Add pasta, oats, or barley to soups.

Dinner:

- Add wholemeal breadcrumbs, oatbran or oats to meatloaf, meatballs or hamburger patties.
 - * 'Recipe 17: Meat and vegetable rissoles' or 'Recipe 18: Meatloaf' in the *Easy Step by Step Cookbook*.
- Try cereal foods which may be unfamiliar, such as couscous, polenta or quinoa.
(Such as adding couscous to a garden salad or using quinoa instead of rice with a stir-fry.)
- Very well cooked rice blended with egg makes an ideal base for savoury baked dishes.
- In place of pastry, use a flat bread or instant lasagne sheets to line a dish in which you are making a quiche, vegetable pie or frittata.

Snacks:

- Add oats or bran to muffins.
- Use wholemeal flour for baking (50% wholemeal and 50% white flour is sometimes more successful) cakes, muffins or cookies.
 - * 'Recipe 62: Banana cake', 'Recipe 47: Plain muffins' or 'Recipe 50: Oatmeal cookies' in the *Easy Step by Step Cookbook*.

2.7 Vegetables and legumes/beans

What foods are in this group?

All fresh, canned and frozen vegetables, legumes and beans.

2.7.1 How much vegetables, legumes and beans should a person have daily?

How many serves should a man have?	19-50 years	6
	51-70 years	5 ½
	>70 years	5

How many serves should a woman have?	19-50 years	5
	51-70 years	5
	>70 years	5

What is 1 serve?	75g (1/2 cup) cooked green or orange vegetables
	75g (1/2 cup) cooked dried or canned beans, chickpeas or lentils, no added salt
	75g (1 cup) raw green leafy vegetables
	75g starchy vegetables (e.g. 1 small or ½ medium potato, or equivalent of sweet potato)
	75g other vegetables (e.g. 1 small–medium tomato)



2.7.2 What would the person's diet look like?

Example 1

How many serves of vegetables should a 20 year old man have every day?

A man aged between 19 and 50 years old should have 6 serves of vegetables every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	2 slices of multigrain toast with 1 tomato and avocado	1
Lunch	Multigrain roll with 1 cup of salad and roast meat OR Roast chicken salad wrap	1
Dinner	1 cup of cooked green beans and carrots, 2 small potatoes and meat	4

Example 2

How many serves of vegetables should a 48 year old woman have every day?

All women should have 5 serves of vegetables every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	Omelette made with 1 cup of cooked mushroom, capsicum and baby spinach	2
Lunch	1 cup of salad with 2 small pieces of grilled fish	1
Dinner	Vegetable stir-fry with 1cup of beans/carrots/capsicum, chicken and rice	2

2.7.3 How can they increase vegetables in their diet?

Breakfast:

- Add vegetables to omelets, scrambled eggs and quiches.
- Add vegetables to toast.
 - * 'Recipe 4: Breakfast tomatoes and mushrooms' in the *Easy Step by Step Cookbook*.

Lunch:

- Add legumes such as lentils, mixed beans and chick peas to soups, salads and casseroles, as a substitute for some of the meat.
 - * 'Recipe 15: Golden hotpot' in the *Easy Step by Step Cookbook*.
- Add salad to sandwiches, burgers or wraps.
 - * 'Recipe 9: Beef burgers' in the *Easy Step by Step Cookbook*.

Dinner:

- Add vegetables to soups, stews and casseroles.
 - * 'Recipe 22: Sausage and vegetable stew' in the *Easy Step by Step Cookbook*.
- Add vegetables to stir fry dishes.
 - * 'Recipe 8: Beef and vegetable noodle stir-fry' in the *Easy Step by Step Cookbook*.

Snacks:

- Grate and add vegetables to baked foods.
 - * 'Recipe 29: Zucchini and carrot slice' in the *Easy Step by Step Cookbook*.
- Mash and add vegetables to cooked foods
(Such as pumpkin scones or zucchini and chutney crepes).
- Serve carrot, celery and capsicum sticks as finger foods with dip.
 - * 'Recipe 43: Vegetable sticks' in the *Easy Step by Step Cookbook*.

2.8 Fruit

What foods are in this group?

All fresh, canned, dried and frozen fruit.

2.8.1 How much fruit should a person have daily?

How many serves should a man have?	19-50 years	2
	51-70 years	2
	>70 years	2

How many serves should a woman have?	19-50 years	2
	51-70 years	2
	>70 years	2

What is 1 serve?	150g (1 piece) of medium-sized fruit e.g. apple, banana, orange, pear
	150g (2 pieces) of small fruit e.g. apricots, kiwi fruit, plums
	150g (1 cup) cooked or canned fruit
	125ml (1/2 cup) 100% fruit juice
	30g dried fruit (e.g. 4 dried apricot halves, 1½ tablespoons of sultanas)



2.8.2 What would the person's diet look like?

Example 1

How many serves of fruit should a 68 year old man have every day?

All men should have 2 serves of fruit every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	½ cup of porridge 1 medium banana	1
Lunch	3 crispbreads 2 small apricots	1
Dinner	Beef stir-fry with vegetables	0

Example 2

How many serves of fruit should a 19 year old woman have every day?

All women should have 2 serves of fruit every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	2 slices multigrain toast 1 medium apple	1
Lunch	1 roast chicken salad wrap 1 cup of canned pears with 100g yoghurt	1
Dinner	Grilled fish with vegetables	0

2.8.3 How can a person increase fruit in their diet?

Breakfast:

- Use in drinks such as smoothies.
- Slice fresh banana or add tinned fruit on cereal.
 - ✱ 'Recipe 7: Weet-Bix™ and banana' in the *Easy Step by Step Cookbook*.
- Chop or grate and add to pancakes or crepes.
 - ✱ 'Recipe 2: Banana, ricotta and honey' pancakes in the *Easy Step by Step Cookbook*.

Lunch:

- Add to salads
(Such as pineapple slices and orange pieces).

Dinner:

- Add to savoury dishes
(Such as chicken and apricot or pork and apple/orange).

Snacks:

- Add fresh or tinned fruit to jelly, custards or mousses.
 - ✱ 'Recipe 57: Custard and kiwifruit' and 'Recipe 58: Fruit and jelly' in the *Easy Step by Step Cookbook*.
- Cut in to bite size pieces and serve on a skewer with natural yoghurt.
 - ✱ 'Recipe 54: Fruit skewers and yoghurt' in the *Easy Step by Step Cookbook*.
- Add to muffins
(Such as fresh or frozen blueberries, tinned crushed pineapple or grated apple and mashed banana).
- Freeze fruit segments for a cold treat
(Such as banana chunks, rock melon pieces and grapes).

2.9 Dairy

What foods are in this group?

Milk, yoghurt, cheese and/or alternatives (reduced fat where possible).

2.9.1 How much dairy should a person have daily?

How many serves should a man have?	19-50 years	2 ½
	51-70 years	2 ½
	>70 years	3 ½

How many serves should a woman have?	19-50 years	2 ½
	51-70 years	4
	>70 years	4

What is 1 serve?	250ml (1 cup) milk – fresh, UHT long life or reconstituted dried
	125ml (1/2 cup) evaporated unsweetened milk
	200g (3/4 cup or 1 small carton) yoghurt
	40g (2 slices, or 4x3x2cm piece) hard cheese (e.g. cheddar)
	120g ricotta cheese



2.9.2 What would the person's diet look like?

Example 1

How many serves of dairy should a 47 year old man have every day?

A man aged between 19 and 50 years old should have 2 ½ serves of dairy every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	1 cup of bran cereal with 1 cup of milk	1
Lunch	1 salad sandwich with 40g sliced cheese 100g natural yogurt with 3 strawberries	1 ½
Dinner	Grilled chicken with couscous and salad	0

Example 2

How many serves of dairy should a 60 year old woman have every day?

A woman aged between 51 and 70 years old should have 4 serves of dairy every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	200g natural yoghurt with 1 apple 2 slices multigrain toast with grilled tomato and 40g cheese	2
Lunch	3 crispbreads with Vegemite™ and 40g cheddar cheese	1
Dinner	Roast chicken with roast potatoes and vegetables 1 cup of milk with 1 spoonful of Milo®	1

2.9.3 How can the person increase dairy in their diet?

Breakfast:

- Add yoghurt to breakfast cereals or fruit salads.
 - * 'Recipe 55: Fruit salad' in the *Easy Step by Step Cookbook*.
- Make porridge with milk rather than water.
 - * 'Recipe 5: Porridge in the *Easy Step by Step Cookbook*).
- Add cheese to sandwiches, toast or rolls.

Lunch:

- Add skim milk powder to soups to make creamy
(Such as pumpkin soup).

Dinner:

- Add grated cheese to savoury dishes such as spaghetti bolognese or mornay.
 - * 'Recipe 24: Spaghetti bolognese' in the *Easy Step by Step Cookbook*.
- Add cottage or ricotta cheese or sour cream to potatoes.
 - * 'Recipe 33: Chat potatoes' in the *Easy Step by Step Cookbook*.

Snacks:

- Add evaporated milk or cream to cake, muffin or cookie recipes.
 - * 'Recipe 62: Banana cake', 'Recipe 47: Plain muffins' or 'Recipe 50: Oatmeal cookies' in the *Easy Step by Step Cookbook*.
- Add custard or yoghurt to fruit for dessert.
 - * 'Recipe 55: Fruit salad' in the *Easy Step by Step Cookbook*.

If lactose intolerant or unable to tolerate much dairy, use soy or lactose free alternatives.

2.9.4 Daily calcium requirements

Adult men: **1000mg** aged 19-70 and **1300mg** > 70 years
Adult women: **1000mg** aged 19-50 and **1300mg** >50 years
Girls and boys aged 9-11 years: **1000mg**
Girls and boys aged 12-18 years: **1300mg**
Children aged 1-3 years: **500mg**
Children aged 4-8 years: **700mg**



2.9.5 Tips to increase calcium intake

Include at least 3 serves (4 if female over 50 or male over 70) of dairy foods daily with or without bony fish.

- 1 serve of dairy
- 250ml milk
- 100ml evaporated milk
- 150ml AnleneTM
- 170ml Calcium Start[®] or PhysiCAL[®]
- 3 tbs skim milk powder
- 200g tub yoghurt
- 40g cheese
- 100g salmon with bones
- 100g sardines

If a person is on a low fat or low saturated fat diet, low fat dairy products are good choices to increase calcium intake.

2.9.6 Increasing calcium intake

- Add low fat yoghurt to cereal or fruit at breakfast.
- Make a low fat milk or yoghurt smoothie.
- Add extra skim milk powder to soups, milk drinks, custard, porridge, and milk.
- Blend cottage cheese with salmon to make a dip or spread for sandwiches, crackers, and veggie sticks.
- Make salmon sandwiches or sardines on toast for lunch or a light meal.
- Use evaporated low fat milk with a coconut flavour to curries and stews.
- Add evaporated low fat milk to fruit instead of cream.

- Add cottage or ricotta cheese blended with yoghurt to potatoes instead of sour cream.
- Make white sauce/creamy pasta sauces out of evaporated light milk.
- Add tofu set with calcium citrate to vegetable dishes.
- Add cheese to meals.

2.10 Lean meat and poultry, fish, egg and nuts

What foods are in this group?

Lean beef, lamb, pork and poultry, fish, eggs, nuts and seeds, and legumes / beans.

2.10.1 How much lean meat, poultry, fish, egg and nuts should a person have daily?

How many serves should a man have?	19-50 years	3
	51-70 years	2 ½
	>70 years	2 ½

How many serves should a woman have?	19-50 years	2 ½
	51-70 years	2
	>70 years	2

What is 1 serve?	65g cooked lean red meats (e.g. beef, lamb, pork, venison or kangaroo) or 1/2 cup of lean mince, 2 small chops, 2 slices of roast meat (about 90–100g raw weight)
	80g cooked poultry (about 100g raw weight) (e.g. chicken, turkey)
	100g cooked fish fillet (about 115g raw weight) or 1 small can of fish, no added salt, in springwater
	2 large eggs (120g)
	1 cup (170g) cooked dried beans, lentils, chickpeas, split peas, or canned beans
	170g tofu
	30g nuts or seeds or nut/seed paste, no added salt

2.10.2 What would the person's diet look like?

Example 1

How many serves of meat, eggs or nuts should a 41 year old man have every day?

A man aged between 19 and 50 years old should have 3 serves of meat products every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	2 slices of multigrain toast with 2 large fried eggs	1
Lunch	Salad wrap with 1 small can of tuna in spring water	1
Dinner	2 slices of roast beef with roast potato and vegetables	1

Example 2

How many serves of meat, eggs or nuts should a 58 year old woman have every day?

A woman aged between 51 and 70 years old should have 2 serves of meat products every day. To show what this should look like refer to the table below.

Meal	Food	Servings
Breakfast	½ cup of porridge with honey 1 apple	0
Lunch	2 slices of multigrain toast with tomato, avocado, cheese and 35g sliced chicken	1
Dinner	150g fish fillets with boiled potato and vegetables	1

2.10.3 How can the person increase lean meat and poultry, fish, egg and nuts in their diet?

Breakfast:

- Add scrambled, poached, fried or boiled eggs to toast.
 - * 'Recipe 3: Boiled eggs and soldiers' or 'Recipe 6: Scrambled eggs on toast' in the *Easy Step by Step Cookbook*.

Lunch:

- Add lean meat to sandwiches, wraps or rolls at lunch.
 - * 'Recipe 19: Roast meat and salad roll' in the *Easy Step by Step Cookbook*.
- Add tinned fish (tuna or salmon) to salads.

Dinner:

- Add dried/canned beans to savoury dishes (nachos, bolognaise, stews or casseroles).
 - * 'Recipe 27: Vegetarian nachos' in the *Easy Step by Step Cookbook*.

Snacks:

- Have tinned baked beans or tuna as a snack.
- If vegetarian, replace meat with tofu, beans, lentils or chickpeas.

2.11 Examples of a high fibre and a low fibre diet

Fibre is a special type of carbohydrate found in plant foods. It is essential for digestion and healthy bowel movements as it passes through the gut all the way to the colon. Foods high in fibre include wholemeal breads and wholegrain cereals, fruits and vegetables.

Low fibre plan – 20g of fibre or less per day

	Food	Fibre (g)
Breakfast	1 cup of puffed rice cereal	0.4g
	1 cup of skim milk	0g
Morning Tea	1 apple	1.7g
Lunch	4 slices of white bread	3g
	1 tbsp of peanut butter	2.7g
Afternoon Tea	2 plain dry biscuits	0.4g
	½ cup canned fruit undrained	1.4g
Dinner	100g grilled chicken breast	0g
	120g mashed potato	1.7g
	½ cup frozen vegetables	4.3g
Supper	1 slice (60g) plain cake	0.6g
Total		16.2g



High fibre plan – 30g of fibre or more per day for constipation and diarrhoea

	Food	Fibre (g)
Breakfast	2 Weet-Bix™	3.2g
	1 cup of skim milk	0g
Morning Tea	1 apple and 1 pear	4.9g
Lunch	4 slices of wholegrain bread	5.7g
	1 tbsp of peanut butter	2.7g
Afternoon Tea	25 almonds	3g
	1 cup of fruit juice	0.5g
Dinner	100g grilled chicken breast	0g
	1 small boiled potato with skin	2.8g
	1 cup of cooked spaghetti	2.5g
	1 cup of frozen mixed vegetables	8.6g
Supper	2 wholemeal dry biscuits	1.5g
Total		35.4g



2.11.1 High fibre snack ideas

Fruit: Fresh, tinned or dried

1 piece of fresh fruit, dried apricots, 3-4 prunes, 1 tablespoon sultanas/raisins.

Vegetables

Raw celery, carrot, cucumber, capsicum, and snow peas.

Dairy

Low fat yoghurt, low fat milk and fruit smoothie, and low fat custard.

Breads and grains

Fruit and raisin toast, wholemeal crumpets, multigrain bread with cottage cheese, and popcorn.

Biscuits and cakes

'Snack Right' fruit bars, 'Paradise Lites' biscuits, muffins, date or fruit scones, and banana pikelets.

2.11.2 Tips to increase soluble fibre

Make sure to include as many serves per day of these foods which are rich in soluble fibre:

- Fruits and vegetables.
- Oat bran and barley. These can be bought and sprinkled on cereals, casseroles and pasta sauce.
- Seed husks, flaxseed, and psyllium. Add these to cakes and baked products.
- Dried beans, lentils, and peas. Add these to soups and pasta.

2.12 Portion sizes

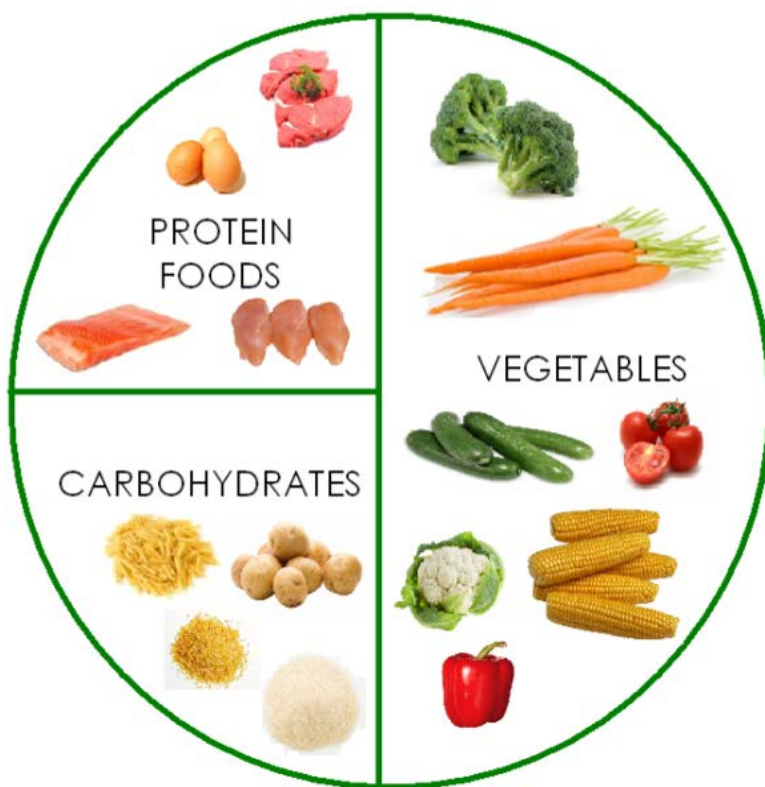
A dietitian can help you understand the amount of food a person needs in one day and also in one meal.

Too much or too little food can lead to weight problems or nutritional deficiencies. If you need further advice on amounts, contact a dietitian.

There is also special equipment available such as portion-control plates and bowls which can be obtained from various online stores such as 'Great Ideas in Nutrition' (<http://www.greatideas.net.au/>).



This picture demonstrates the way a dinner plate should be divided to provide a healthy, balanced meal.



Balanced meal plate



This is an example of a healthy, balanced meal



This is an example of a meal which is not balanced. This type of meal may be served in a restaurant.

2.13 Healthy meal options

2.13.1 Offering meal choices to a person who uses non-verbal communication

Refer to the person's **Communication Profile** and use any augmentative communication aids or devices when offering choice to a person who is non-verbal.

Some creative ways of communicating food options are the use of food models, displaying pictures of different food items from food catalogues or cookbooks, drawing pictures of different food items or describing the food item in braille.

The *Easy Step by Step Cookbook* provides picture cards of each meal to provide visual prompts.

2.13.2 Healthy breakfast options

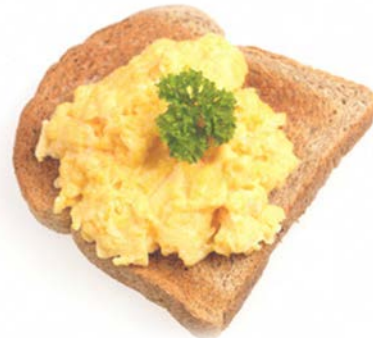
Breakfast cereal with milk or water is an easy morning meal. It is best to aim for less than 5g of fat per 100g and more than 8g fibre per 100g of cereal, such as one serving of:

- Weet-bix™
- All-Bran™
- Sultana Bran™
- shredded wheat
- porridge.



1-2 slices of multigrain or wholemeal toast with toppings such as:

- baked beans
- boiled/poached eggs
- tomatoes and mushrooms
- mashed banana
- Vegemite™, peanut butter, jam or honey.



Natural yoghurt with:

- Fresh, frozen or tinned fruit
- Small handful of dried fruit or unsalted nuts and seeds (if choking is not an issue).

Fruit smoothies are an easy to prepare breakfast meal in the morning, especially for those who are poor eaters. Combine ingredients in a blender to make smoothies.

Some options include:

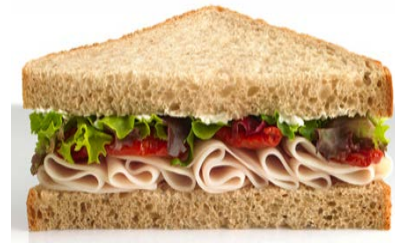
- yoghurt, fresh or frozen berries and juice
- milk, yoghurt and banana
- juice and fresh fruit such as oranges and pineapple.

2.13.3 Healthy Lunch Options

Sandwiches

Sandwiches are the easiest option for lunch time as they can be prepared early and transported when having lunch outside of the home. Two slices of multigrain or wholemeal bread can be replaced with a multigrain or wholemeal wrap or roll. For more variety try different spreads such as:

- Vegemite™, peanut butter, jam or honey
- avocado, hummus, mayonnaise or cream cheese.



Assortments of fillings are also available such as:

- cottage cheese or egg
- lean meats (ham, chicken or roast beef) or tinned fish (tuna and salmon)
- salad (lettuce, tomato, alfalfa, baby spinach, cucumber, beetroot, onion, pineapple, carrot, capsicum or celery).

Some healthy sandwich examples include:

- multigrain sandwich with avocado, lean roast beef, tomato, lettuce, beetroot and pineapple
- lavash wrap with low fat mayonnaise, salmon and cucumber
- wholemeal roll with light cream cheese, tuna, celery and alfalfa.

Soups

Soups provide a variety of nutrients and offer a nice alternative in winter. They can either be homemade, or tinned varieties are available at most supermarkets. Some varieties of soup can include:

- vegetable
- pumpkin
- sweet corn and chicken
- minestrone.



Leftovers

Leftovers from previous dinners are another quick and easy lunch option that will help minimise waste. It is important to remember a variety of food from each food group needs to be included.

If only some leftovers are being eaten, such as meat; add the other food groups to the lunch meal, such as salad, bread and cheese.

It is also important to keep in mind how long the food item has been stored. See Section 8 'Food safety and hygiene' for further information.

2.13.4 Healthy dinner options

A well balanced dinner meal has three important parts –

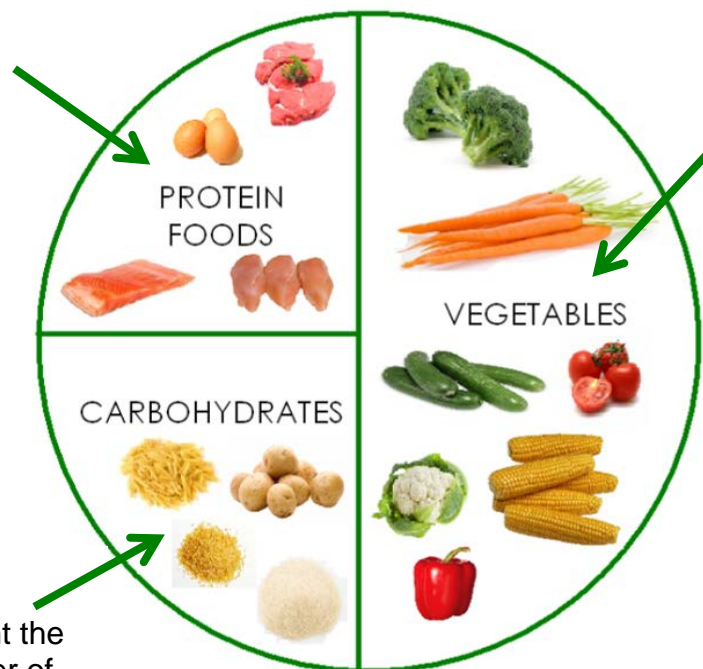
1. Vegetables
2. Protein foods
3. Carbohydrates.

Protein foods

Should represent a quarter of the dinner plate and include lean meats such as chicken, beef, lamb, pork or fish, as well as legumes, beans, tofu or egg.

Carbohydrates

Should represent the remaining quarter of the dinner plate and include foods such as potato, sweet potato, rice, couscous, pasta, bread or noodles.



Vegetables

Should represent half the dinner plate and include a variety of colours. It is important to have different coloured vegetables to ensure a variety of nutrients are included in the meal.

2.13.5 Evening meal variety

Evening meals (dinner) have the potential to provide the greatest variety of all the meals throughout the day. Some healthy ways to prepare evening meals can include shallow pan frying, stir frying, grilling, barbequing, roasting, baking, casseroles or hearty meat and vegetable soups.

One way to come up with a variety of evening meal options is to choose one protein food, one carbohydrate food and as many vegetables as desired, and then select a way to prepare it.

Always ensure half the meal is vegetables, one quarter is protein foods and one quarter is carbohydrates.

For example:



* For more dinner ideas refer to recipes 8-30 in the *Easy Step by Step Cookbook*.

2.13.6 Healthy dessert options

Dessert options are healthiest when based on fruit or dairy and serving sizes are not too big. Some dessert ideas include:

- fruit salad with or without yoghurt
- creamy rice made on milk with diced fruit
- custard and fruit such as kiwi, strawberries or banana
- fruit and jelly
- fruit crumble
- fruit sponge cake
- fruit muffins or pancakes.



2.13.7 Healthy snack options

It is important to have healthy snacks between meals to keep energy levels up and to decrease overeating at mealtimes. Some snack ideas include:

- carrot sticks, celery and grape tomatoes with dip or salsa
- fresh, dried or tinned fruit
- 100g natural/fruit yoghurt
- baked beans
- air popped popcorn
- rice crackers
- pretzels
- fruit bread/toast.



* For more snack and desert ideas refer to recipes 40-55 in the *Easy Step by Step Cookbook*.

2.14 Why exercise?

Physical activity is an essential aspect of health.

Everyone should participate in some exercise daily. Balancing energy in (food) with energy out (exercise) stops any excess energy being stored (fat).

2.14.1 Benefits of physical activity:

- Reduces the risk of type 2 diabetes, osteoporosis, colon cancer and obesity.
- Regular physical activity has also been shown to have a positive impact on mood, quality of life and wellbeing.
- Increases metabolism.
- Promotes a healthy weight.
- Can contribute to weight loss.
- Increases energy levels.
- Allows for a better sleep.

In general, people with disability have been shown to have a lower participation rate in physical activity than the general population.



2.14.2 Physical activity should include:

- Seeing movement as an opportunity, not an inconvenience.
- At least 30 minutes of moderate intensity physical activity on most, if not all days of the week, for example, swimming, cycling, walking, running or team sports.
- Enjoying some regular vigorous exercise for extra health and fitness.

These activities can be facilitated for people with disability by adapting activities, changing or modifying the environment or through the use of additional equipment.

It is important to ensure risks associated with use of exercise equipment are managed to ensure the safety of the people using it.

It is therefore important to seek specialist advice from healthcare providers, such as an exercise physiologist, who is familiar with the needs of the person and any activity limitations they may have.

Refer to the Health Promotion Guidelines and Health Planning Procedures for further information including the **Physical Activity Checklist and Plan**.

2.14.3 Increasing exercise opportunities for people with disability

- Support the person to identify an enjoyable activity which is physically active, and encourage the person to make it a part of a daily routine.
- Walking part of a journey usually travelled by car.
- Joining a community exercise group, for example, walking, swimming, sailing, horse riding, running, orienteering.
- Attending discos, dances and community balls or just simply dancing to music.
- Delivering the local paper, pamphlets or brochures.

Look for everyday opportunities to increase physical activity such as:

- Walking to shops, a friend's house, a park, the bus stop.
- Starting a garden or similar outdoor activity.
- Walking a pet if possible.
- Any daily household tasks that require activity to complete them e.g. hanging out washing, vacuuming, sweeping, taking out the rubbish, checking the mailbox.
- Using the shopping lists provided in the *Easy Step by Step Cookbook*, ask the person if they would like to help find the ingredients when shopping at the supermarket. Shopping for meal ingredients supports participation in meal preparation as well as incidental physical activity.

The **Monitoring Daily Healthy Eating and Exercise** tool located in the Nutrition and Swallowing 'Tools and templates' section is a useful place to record whether food from all the food groups has been consumed and exercise has been completed each day.

3 Supporting Individual Nutrition and Health Needs

3.1 How to manage a person's weight

3.1.1 Body weight

Completion of the **Nutrition and Swallowing Risk Checklist** (the Risk Checklist), which includes calculating the person's BMI, may show that the person is overweight or underweight. The GP will determine the correct weight range for the person.

A person's energy intake determines their body weight. If a person eats less than they need, they lose weight.

If they eat more than they need, they put on weight.

If they are eating the right amount for their need, their weight stays the same. This is shown in the diagram below.

Energy in

Energy out



Here the person's energy going out is greater than the energy going in.

This will cause them to lose weight.

Energy in

Energy out



Here the person's energy going in is greater than their energy going out.

This will cause them to gain weight.

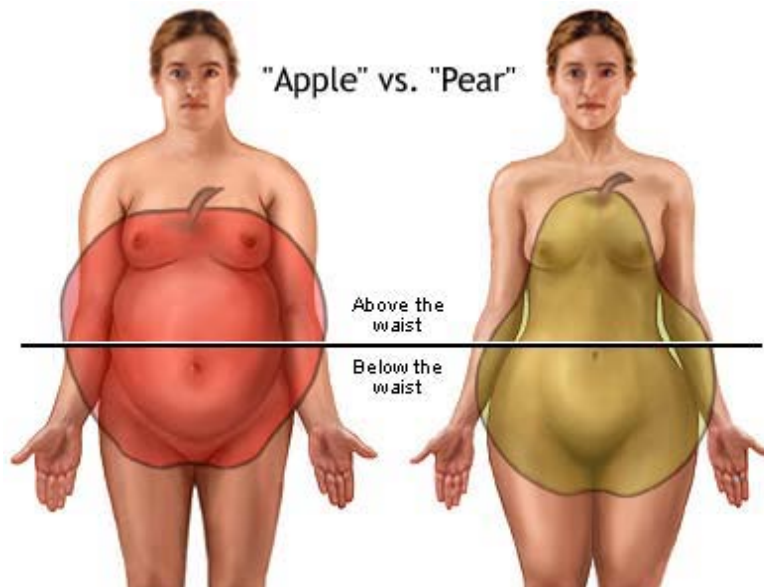
3.2 Body shape

Body shape is an important part of being healthy.

There are two main body shapes, they are the 'apple' or 'pear' shapes.

An apple shape can be more of a problem as the person's weight is distributed around their stomach and is associated with a higher risk of heart disease and diabetes.

The pear shape is associated with less risk than the apple body shape as the person's weight is mostly distributed around the person's hips and thighs.



All people living in accommodation support services must have their weight measured and recorded monthly, unless otherwise specified by a GP or health professional.

Observing the pattern of a person's weight over time provides more information about the person than looking at a single weight measurement.

Unintentional weight loss or gain can indicate that a person's physical or mental health needs attention.

When a person's weight changes over time, it is important to determine if it is part of a health problem. For example, the person might be losing weight because they can't swallow their food properly.

Weight loss may also mean that the person has an illness. For example, if a person is 75 kilograms and is losing weight at a rate of one to two kilograms per month without trying.

3.3 Measuring a person's weight accurately

Unless otherwise directed by a health professional, weigh the person once a month and record it in the person's **Weight Chart** (refer to Health Planning Procedures).

It is not necessary to weigh a person more than once a month as daily fluctuations in weight are normal and can be confusing or misleading.

Process:

1. Weigh the person in the same clothes if possible. Lightweight clothing is best. Ensure they take their shoes off. Remove any helmets, mobility supports etc.
2. Weigh the person at the same time of day e.g. mornings prior to breakfast.
3. Allow the person to use the toilet to empty bladder and bowels before being weighed.
4. Weigh the person using scales situated on a flat, level hard surface.
5. Ensure the scales are of good quality and are in good working order.



3.3.1 Measuring the weight of a person with balance or mobility difficulty

Use chair scales to accurately measure the weight of a person who has difficulty maintaining balance or standing without mobility aids.

Follow the previous guidelines for measuring weight.

Ask the person to sit in the chair scales with their feet on the foot rests and record their weight.



3.3.2 Measuring the weight of a person in a wheelchair

A person in a wheelchair or who is unable to stand without support can be weighed using wheelchair scales. These scales are available in some group homes and large medical centres including hospitals and health services.

Process:

1. Weigh the empty wheelchair and record the weight.
2. Support the person to dress in light clothing and sit in the wheelchair.
3. Move the wheelchair onto the scales and engage the brake.
4. Record the total weight and deduct the weight of the wheelchair to obtain the person's correct weight.



3.4 Measuring a person's height accurately

There are several ways of measuring a person's height.

3.4.1 Standing height (stature) measurement

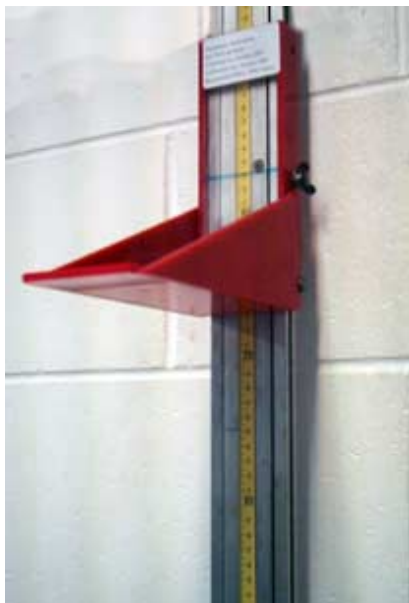
Equipment required: Stadiometer or steel ruler or tape measure placed against a solid wall.

Procedure: Standing height is the measurement of the maximum distance from the floor to the highest point of the head when the person is facing directly ahead.

For accuracy:

- shoes must be removed
- remove any head wear or hair accessories
- feet to remain together as closely as possible
- arms to hang loosely by sides of body
- heels, buttocks and upper back should be in contact with the wall as closely as possible.

Reliability: Height can vary throughout the day. A person is usually taller in the morning. To ensure reliability, measure the person's height at the same time of day.



A stadiometer is a simple tool for measuring height.

Attach it to a solid wall or the back of a solid door.

The person stands against the wall and the stadiometer is lowered or raised so it rests lightly on top of the person's head.

The person's height is then indicated on the stadiometer.



3.4.2 Measuring a person's height using half arm-span (also known as demi-span)

This method of measuring height can be used on a person who is unable to stand. Half arm span or demi span is the distance from the midline at the sternal notch to the tip of the middle finger.

Equipment: Tape measure, pen and paper.

Procedure:

1. Locate the edge of the right collar bone and note the sternal notch (see diagram).
2. Support the person to place their non-dominant arm in a horizontal position e.g. if they are usually right handed, use their left arm.
3. Ensure the person's arm is horizontal and in line with the shoulders.
4. Using the tape measure, measure the distance between the sternal notch to the tip of the middle finger.
5. Ensure the arm is flat and the wrist is straight.
6. Take the reading in centimetres and record.
7. Calculate the person's height using the formula below.

For females: height in cm = $(1.35 \times \text{half arm span (cm)}) + 57.8$

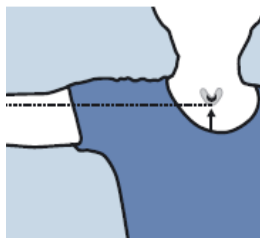
For males: height in cm = $(1.40 \times \text{half arm span (cm)}) + 57.8$

Example: the person is female and her half arm span is 70cm

Her height would be calculated as follows:

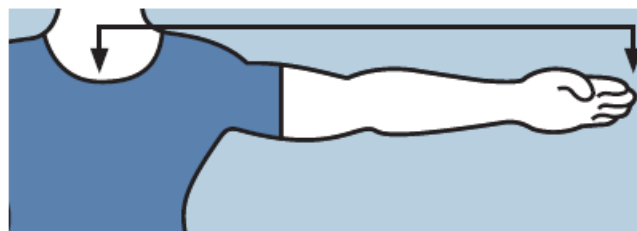
$$(1.35 \times 70 = 94.50) + 57.8 = 152.3$$

The person's height is 152.3 cm



Calculate height by multiplying the half arm-span measurement by 2

Half arm-span



Source:

http://www.rxkinetics.com/height_estimate.html.
Accessed January 15, 2011.

3.5 When a person is underweight

A person will become underweight when they don't take in enough energy or kilojoules to meet their needs. There are many reasons why people can become underweight including:

- not eating enough food
- difficulty with chewing and swallowing
- a poor appetite, this can be caused by conditions such as depression, gastrointestinal problems and medications
- expending more energy in the form of physical activity, constant movement (tremors or hyperactivity) or muscle contractions (such as athetoid cerebral palsy) than they consume
- behavioural issues such as fussy eating which prevent them from finishing meals or accessing a wide range of nutrients
- medications that increase their metabolic rate or reduce appetite
- reliance on other people to prepare and provide healthy nutritious food to meet their nutrition needs.

People who are underweight can have many health risks.

Risks for being underweight:

- Nutrient deficiencies that cause diseases, for example a protein deficiency that can cause muscle wasting.
- The immune system can't function properly so the risk of infections and illnesses is higher.
- The healing of sores can be delayed, so they can turn into ulcers and become infected.
- Bone breakdown, reduced bone strength, poor bone density and osteoporosis, increasing the risk of bone fractures.
- General tiredness, weakness and lethargy.

If a person has lost weight unintentionally or is thought to be underweight, they need to be referred to their GP. Their GP can refer to an accredited practising dietitian who can develop an individual eating plan for weight gain and provide education about weight gaining diets.

3.6 Tips on healthy eating for weight gain

1. Ensure the diet remains healthy including adequate amounts from the 5 food groups. Refer to Section 2 'Good Nutrition and Exercise'.
2. People who are underweight are encouraged to have more of the higher energy food groups to help boost their energy intake for a healthy weight. When choosing foods, make sure people are eating full cream products rather than reduced fat, for example, use full cream milk instead of light or skim milk.
3. When increasing foods and nutrients in a person's diet, ensure only the meal of the person who needs to gain weight is modified.
4. It is best if the person does not fill up on fluids such as water, tea, coffee or cordials before the meal, as they may feel too full to eat all of their food. If possible, try to offer the person a drink after the meal to ensure they get as many of the nutrients they need as possible.
5. A person's preference for eating meals may not follow a typical eating pattern. For example, the person might prefer a main meal at lunchtime because their appetite is better, or because their evening medications make them feel sick and not interested in eating much. The time of day a person eats their meals is not as important as having enough to eat. If a person has a small appetite, do not try and force them to eat larger meals, but encourage them to have several smaller meals throughout the day.
6. Take advantage of any occasion that an underweight person wants to eat. If they prefer to eat in the morning, plan a larger meal for that time of day.
7. Eating a large amount of solid food can be filling. High energy drinks and snacks can be added in between meals to boost energy intake without affecting the appetite at meal time.

Easy Step by Step Cookbook example to add energy to a meal.

Chocolate banana milkshake

Ingredients

- 1 cup **full cream** milk (instead of low fat milk)
- 2 teaspoons of Milo™
- 1 scoop of ice cream or whipped cream
- 1 banana

Method

1. Wash hands
 2. Add milk, Milo™, banana and ice cream to a jug
 3. Blend with stick mixer until all ingredients are mixed together
 4. Pour into a glass and serve
- * The *Easy Step by Step Cookbook* has many tips and ideas for recipes and how to get extra energy in foods – see p.9 & 10



3.7 Overweight and obesity

A person will become overweight or obese when they eat too much food (energy/kilojoules) for their body's needs. There are many reasons why people become overweight or obese, these include:

- eating more than the body needs e.g. a diet high in processed fatty and sweet foods and drinks
- reduced physical activity
- decreased muscle mass meaning the body needs less energy
- medications
- medical conditions that increase appetite
- poor knowledge of healthy food choices
- reliance on a number of other people who are not aware of good nutrition to prepare and provide healthy meals.



There are many health risks and diseases associated with being overweight or obese. These include:

Type 2 Diabetes	High blood pressure
Heart disease includes high blood pressure, high cholesterol levels and atherosclerosis	Depression
Atherosclerosis	Kidney problems
Decreased mobility	Liver disease
Joint and back problems	Skin infections
Cancer	Stroke
Vitamin D deficiency	

Refer to the Chronic Disease Guidelines for further information on diabetes and obesity.

If a person has gained weight unintentionally or is thought to be overweight, they need to be referred to their GP or accredited practising dietitian who can develop an individual eating plan and provide dietary advice and education about weight reducing diets.

3.7.1 Weight loss

An eating plan for weight loss should not be restrictive. It needs to incorporate all of the food groups from the Australian Guide to Healthy Eating. Changes to the person's diet should be introduced gradually and not all at once. Doing so will make sure they are comfortable and can adjust to the new changes before adding more.

A dietitian will support the person to set a realistic weight loss goal. Goals should be achievable. It is best if the person is encouraged to focus on the progress they have made with changed eating habits rather than their weight.

Ensure the person celebrates any positive results they achieve. Point out the other areas of their lives that will now improve as a result, such as their movement, mobility, fitness and energy levels.

Weight loss is not a quick process. Initially a person may lose weight rapidly, and then slow down. Some people may even stop losing weight altogether for a period of time.

This stage is called the plateau period and is a good time to review the person's weight loss plan with a dietitian.

People with disability whose weight causes mobility problems, may need more time for weight loss to take effect. Giving them extra encouragement, and being consistent in the way you and the team provide support, are critical to their success.

Rewarding weight loss with food is a negative practice as it undermines the process of losing weight. Instead of using food based rewards for achievements, support the person to work out rewards they would like for achieving a weight loss.

A key tool for monitoring a person's changed food habits is the **Food Diary** located in the Nutrition and Swallowing, 'Tools and templates' section.

The Food Diary can be used to record the foods and quantities eaten by the person each day.

Compare the diary entries, before the person commenced the weight loss program with later entries, to demonstrate what great progress has been made.



3.7.2 Tips on reducing energy and fat intake

- Eat leaner cuts of meat and remove the fat before cooking.
- When cooking, use less oil by using non-stick fry pans and oil spray, or by grilling, boiling or microwaving food.
- Avoid foods that are deep fried in oil.
- Choose low fat dairy products where possible.
- Instead of chips, biscuits and cakes as snacks, offer fruit and vegetables.
- Only use a light scraping of margarine or butter on bread.
- Nuts and seeds are a healthy option, but only in moderation as they are high in good fats.

3.7.3 Exercise to assist weight loss

Exercise is important in weight loss and healthy living. Exercise helps burn up excess energy that has been eaten.

Encourage the person to engage in physical activity. This can be any type of movement and doesn't have to be running or high intensity exercise. The person should start with 10 minutes exercise a day if they are sedentary or have mobility issues. As the person feels stronger and fitter exercise can be increased to 30 minutes a day, which is ideal.

Some ideas for physical activity are:

- walking to the shops or to day programs
- gardening
- walking groups
- attending community sports centres like Police Youth Citizens Clubs
- kicking a ball at the local park
- swimming.



3.7.4 Overeating

Overeating can be caused by many factors and can affect anyone. There are many strategies to discourage a person from overeating or binge eating, and becoming overweight or obese.

Some examples include:

- Support the person to identify what is triggering the person to overeat. For example, do they eat more when they are upset?
- Work with the person to create strategies to minimise the effect on the person by offering a preferred activity, such as a telephone call with a family member or friend, or doing something to distract the person.
- Boredom can sometimes cause overeating. Going for a walk around could stimulate the person. Try to get the person involved in an activity they enjoy.
- If the person likes to snack, offer healthy snack foods such as fruit and vegetables
- Ensure support workers model healthy eating behaviours and show respect for the person who is trying to eat less and lose weight.

If overeating is due to a person's lack of emotional wellbeing, it is recommended to refer them to their GP for a referral to a psychologist with their consent.

3.8 Daily meals for healthy eating and weight maintenance

Breakfast	<ul style="list-style-type: none">• Wholegrain cereal with low fat milk with fresh, tinned or fried fruit• Wholegrain English muffin topped with low fat ricotta cheese and fruit• Fruit smoothie made with low fat milk or yoghurt and fresh or tinned fruit
Morning Tea	<ul style="list-style-type: none">• A slice of raisin bread• Wholegrain muesli bar• Low fat muffin
Lunch	<ul style="list-style-type: none">• Wholegrain sandwich or roll with salad and lean meat or tinned fish in spring water• Chicken and avocado wrap served with salad• Baked potato topped with low fat cheese served with a salad
Afternoon Tea	<ul style="list-style-type: none">• A piece of fruit• Rice cakes with low fat ricotta or cream cheese• A small serving of plain air popped popcorn
Dinner	<ul style="list-style-type: none">• Beef or chicken stir-fry with vegetables served on rice or noodles• Pasta made with lean mince and diced vegetables wrapped in a filo pastry• Barbequed fish served with herbs, baked potato and salad
Supper	<ul style="list-style-type: none">• Fruit crumble with low fat custard.• Fruit set in jelly.• Yoghurt.

Use the **Monitoring Daily Healthy Eating and Exercise** tool located in the Nutrition and Swallowing, 'Tools and templates' section to record the foods and drinks consumed by the person and exercise performed.

3.9 Food Diary

3.9.1 How to use the Food Diary

1. Record any food or drink consumed over the whole day. Include the type of food, e.g. milk, and the variety if applicable e.g. reduced fat milk.
2. Include the brand, size or amount of the food or drink. This can be done by weighing food or describing amounts, e.g. 200g of bread or one teaspoon of jam.
3. Record the time the person consumed the food or drink as well as the time taken.
4. Record the name of the support worker assisting the person while they eat or drink.

If a person has any difficulty, make sure it is discussed with the line manager.

The **Food Diary** template is located in the Nutrition and Swallowing, 'Tools and templates' section of the Health and Wellbeing Policy and Practice Manual, Volume 1.

3.10 Considering a person's culture

1. NSW is one of the most demographically, linguistically, culturally and religiously diverse states in Australia. Nearly half of the people in the state were either born overseas or have at least one or both parents born overseas. There are about 200 languages other than English spoken and there are over 136 religious categories.
2. When taking into account a person's cultural or religious preferences in relation to food, it is important not to compromise optimising their nutritional intake.
3. The typical foods consumed by people from different cultures and religions are varied and may differ within the same culture or religion.
4. Ask the person and the family if they have any specific eating requirements or preferences, and whether they use specific eating utensils.
5. Some examples of cultural or religious preferences or requirements include:
 - cultural observations, e.g. Chinese New Year, or religious observations e.g. eating fish on Good Friday or Ramadan.
 - not eating red meat
 - not eating pork
 - vegetarian foods only
 - foods which meet halal requirements
 - not combining foods such as meat and dairy

- foods which meet kosher requirements
- using chopsticks
- using fingers/spoons only
- use of particular traditional condiments.



It is important to understand the person or the family's cultural and religious beliefs to ensure that they are happy with the food provided.

If someone is repeatedly offered foods they do not eat, without being offered an alternative, they are at risk of malnutrition and unplanned weight loss.

3.10.1 Examples of recipes from different cultures

Chinese dumplings

Makes 30

Ingredients

- 300g pork mince
- 4 green onions, chopped
- 2 garlic cloves, crushed
- 1/4 cup bamboo shoots, chopped
- 2 tsp Chinese rice wine
- 1/4 tsp white pepper
- 3/4 tsp sesame oil
- 30 fresh wonton wrappers
- 1cm piece ginger, peeled, finely chopped
- 1/4 cup soy sauce
- 1 1/2 tspn white wine vinegar
- 3 tsp white sugar
- 1 tsp coriander leaves, chopped

Method

1. Combine mince, onion, garlic, bamboo shoot, rice wine, white pepper and oil in a bowl. Season with salt.
2. Place 1 teaspoon mixture into centre of 1 wonton wrapper. Brush edges with water. Fold wonton over to make a triangle. Bring base corners of triangle together. Press firmly to join.
3. Line base of a large steamer basket with baking paper. Place dumplings, in a single layer, in basket. Pour water into a wok until one-quarter full. Bring to the boil over high heat.
4. Place steamer over wok, ensuring base doesn't touch water. Steam dumplings for 15 to 20 minutes or until tender and cooked through.
5. Combine ginger, soy sauce, vinegar, sugar and coriander in a bowl. Stir until well combined. Serve with dumplings.

Kashmiri lamb korma

Ingredients (serves 4)

- 1/4 cup (60g) butter
- 3 brown onions, coarsely chopped
- 1 tspn ground turmeric
- 8 black peppercorns, crushed
- 6 whole cloves
- 1 tsp cumin seeds
- 1 tbspn finely grated fresh ginger
- 2 tsp coriander seeds
- 1 tbspn smoked paprika
- 3 ripe tomatoes, chopped
- 1kg lamb meat
- 2 cups (500ml) water
- 1 cup (250g) natural yoghurt
- Steamed basmati rice, to serve

Method

1. Heat the ghee in a large saucepan over medium heat. Add the onion and cook, stirring occasionally, for 5 minutes or until lightly golden.
2. Add the turmeric, peppercorns, cloves, cumin, garlic, ginger, coriander seeds and paprika and cook, stirring, for 1-2 minutes or until aromatic.
3. Add the tomatoes and cook, stirring, for 5 minutes or until tomatoes are pulpy.
4. Add the lamb, water and yoghurt and bring to a simmer.
Reduce heat to low and cook, covered, stirring occasionally, for 2 hours or until lamb is very tender and sauce thickens slightly.
5. Spoon lamb among serving bowls. Serve with naan bread and steamed rice.

3.11 Vegetarian diet

There are many different types of vegetarian diets a person may follow.

Generally a vegetarian diet includes plant foods like grains, nuts, seeds, fruit and vegetables with or without dairy and eggs. The categories are broken down into:

Vegan diet: Avoids all foods from animals including eggs and dairy

Lacto-vegetarian diet: Includes dairy in the diet with plant foods

Lacto-ovo vegetarian diet: Includes dairy and eggs with plant foods

A healthy vegetarian diet requires careful planning to ensure the person receives a balanced amount of nutrients.

Animal sources of foods are very high in some vitamins and minerals, and cutting out these foods can make a person deficient in some nutrients.

Some of the main vitamins and minerals found in animal foods are:

Meat, chicken, and fish

- iron
- protein
- vitamin B12
- zinc.

Dairy products

- calcium
- protein
- vitamin B2
- vitamin B12.



Eggs

- protein.

Protein

Plant based foods are incomplete proteins. This means they don't contain all the essential amino acids our body needs⁴. Vegetarian diets usually contain enough protein for health however, vegan diets may lack protein. We need different types of amino acids to make different proteins, so make sure the person is getting at least two different protein types each day, for example cereal, nuts, legumes (baked beans, chick peas, lentils, etc.), bread and pasta.

Vitamin B12

Vegans can be low in vitamin B12 as it comes from animal sources. Some plant foods are now fortified with vitamin B12, and these should be included in the person's diet. Such foods include, fortified breakfast cereals, fortified soy milk, and fortified yeast. Vitamin B12 can be provided by GPs through injections if necessary.

Iron

Animal products, especially red meat, contain high levels of iron. Following a vegetarian diet may mean someone is lacking in iron. To increase iron in the diet, try to include foods that are rich in plant iron including whole grain bread, pasta and rice, legumes, and green leafy vegetables such as broccoli and silver beet.

Eating plant foods that contain iron combined with foods that contain vitamin C can increase the amount of iron absorbed in the diet. These include fruits such as oranges, mandarins, lemons, kiwi fruit, rockmelon, and vegetables such as capsicum, tomatoes and cauliflower.

Zinc

Zinc assists with wound healing and the ability to taste, smell and see. Main sources of zinc are meat, fish, and chicken and it can also be found in wholegrain breads, legumes, bran, breakfast cereals and nuts.

Calcium

Certain medications can increase the risk of osteoporosis. A vegan or other diet that excludes dairy products may be very low in calcium. It is important to provide enough calcium in the diet.

Some great dairy-free sources of calcium include

- tofu
- green leafy vegetables such as silver beet
- tahini (sesame seed paste)
- nuts such as almonds, brazil nuts and hazelnuts
- dried figs
- calcium fortified soy milk.

⁴Sourced from About Nutrition http://nutrition.about.com/od/askyournutritionist/f/protein_combo.htm

4 Digestive Health

4.1 What is digestive health?

When a person eats food it is mechanically broken down in the mouth, the food passes down the oesophagus, into the stomach where it is chemically broken down and then passes into the small intestines where enzymes are released to breakdown the food into nutrients that are absorbed.

In the large intestine, dietary fibre and waste products travel towards the rectum where it is excreted in the toilet.

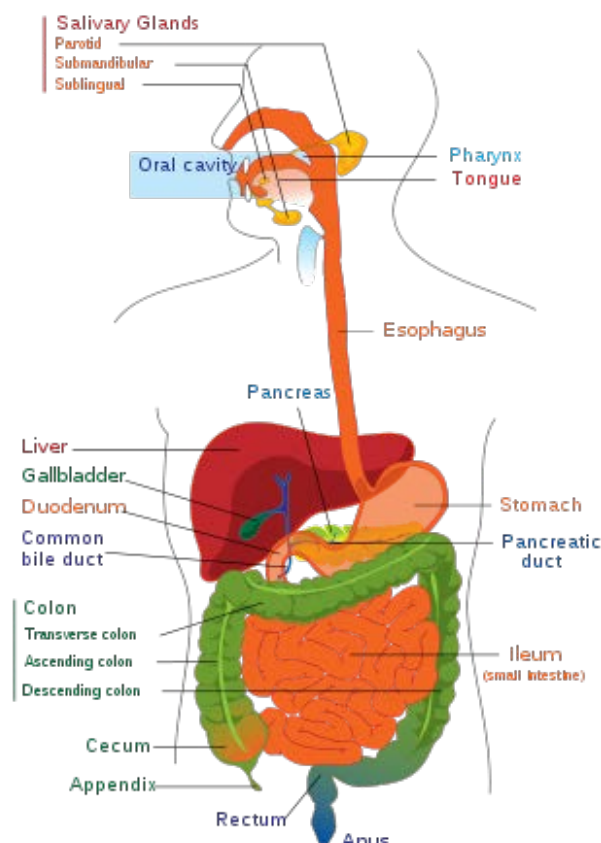
When a person has good digestive health there is no pain or discomfort and stools are soft and easy to pass every 1-3 days on average.

4.2 What are digestive health conditions?

There are many different health conditions that are caused by or associated with food.

This section provides a guide to determining a person's risk for certain diseases, and also a guide to symptoms to help recognise the disease or early stages of the disease.

If you believe a person has a health condition related to their digestive system, support them to see their GP.



4.2.1 Digestive health condition – gastro oesophageal reflux disease (GORD)

Reflux is the backflow of acid from the stomach that travels up the oesophagus and sometimes into the mouth. Gastro oesophageal reflux disease (GORD) occurs when reflux is chronic (ie over 3 months) and has caused inflammation or damage to the oesophagus.

Reflux can be made worse by:

- spicy, flavoured foods e.g. citrus, tomato and a high fat diet
- lying down or changing positions after eating
- coughing/laughing/crying can increase reflux symptoms
- obesity
- moderate to intense physical activity or exercise right after eating
- increased alcohol/caffeine
- enteral feeding – continuously over the day or night
- large bolus/volume of feed in a short period of time
- high fat diet
- medicines that delay emptying of acid from the stomach or that increase acid backup into the oesophagus can worsen GORD.

Treatment aims to manage the symptoms of GORD and keep the person comfortable and well. A diagnosis of GORD is made by the person's doctor and treatment usually includes medication, diet and physical positioning.

Treatment aims to manage reflux and keep the person comfortable and well.

See the Chronic Disease Guidelines for information about the signs and risks associated with GORD and the Bowel Care Guidelines in Health and Wellbeing Policy and Practice Manuals, Volumes 1 and 2.

4.2.2 Digestive health condition – Constipation

Constipation is defined as the infrequent or difficult passing of hard and dry stools (faeces or poo).

Constipation can be due to:

A change in routine – Normal passage of stools depends on regularly emptying the bowel. If there is a change in routine, it can upset the person's 'body clock'.

Low fibre diet – A high fibre diet bulks up a person's stools assisting them to move easily through the bowel.

Not enough water – Water is needed for fibre to bulk up stools.

Not enough exercise – Having a sedentary lifestyle or restricted mobility can be a cause of constipation.

‘Putting off’ going to the toilet – If a person ignores the urge to go to the toilet, water in stools is absorbed back into the bowel, making them harder and more difficult to pass.

Medications – Some medications cause constipation including: narcotics, anti-depressants, iron supplements, blood pressure drugs and some antacids.

Being older – Constipation is common in the elderly due to reduced muscle contraction ability of the bowel and also some medications.

Illness – Illnesses that cause hospitalisation and bed rest can cause constipation.

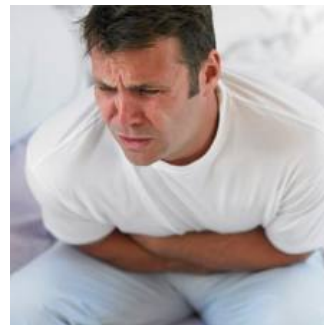
4.2.3 Digestive health condition – Diarrhoea

Diarrhoea is when food and nutrients pass through the digestive system too quickly resulting in frequent loose and/or watery stools.

Acute diarrhoea may be caused by infection in the bowel and is usually resolved within a few days. Maintaining good hydration including using electrolyte drinks is recommended. If the diarrhoea does not resolve quickly, i.e. within 1-2 days, the person should be taken to the GP or local hospital immediately.

Take the person to the hospital immediately if they experience:

- blood or pus in the stools
- painful passing of stools
- repeated vomiting
- cannot keep fluids down
- reduced or no urine output
- fever.



Causes of acute (short term) diarrhoea

Gastroenteritis e.g. from a virus or food poisoning

Tropical diseases such as typhoid

Anxiety

Consumption of too much alcohol

Medications, especially antibiotics

Causes of chronic (long term) diarrhoea	
Coeliac disease	Chronic constipation, common in the elderly
Hormone disorders such as diabetes	Cancer
Inflammatory bowel disease	Irritable bowel syndrome (IBS)
Lactose and or food intolerance	Medications

4.2.4 Digestive health condition – Gastric and peptic ulcers

A stomach or gastric ulcer is a break in the stomach lining. A peptic ulcer is one that forms at the start of the small intestine called the duodenum.

Causes of Gastric Ulcers	
Bacteria; Helicobacter pylori	Medications; aspirin or other gastric irritants
Stomach cancer	
Symptoms of Gastric Ulcers	
Abdominal pain below the ribcage	Indigestion
Nausea	Loss of appetite
Vomiting	Weight loss
Bright blood in vomit or stools	Anaemia symptoms; light headed
Shock from blood loss	

4.2.5 Digestive health condition – iron deficiency

Iron helps transport oxygen in the blood and delivers it to the muscles. If a person is not eating enough iron, the blood's ability to transport oxygen is reduced.

Causes of iron deficiency	
Not enough iron in the diet	Blood loss
An increased need e.g. pregnancy	Exercise, particularly in athletes
Inability to absorb iron	
Symptoms of iron deficiency	
Feeling tired and listless	Not able to do work or exercise
Shortness of breath while doing minimal activity	Recurring infections
Feeling the cold more than normal	Pale skin

4.3 Preventing poor digestive health

Diet – A balanced diet high in fibre is the best approach to good bowel health.

There are 2 types of fibre to include in the diet for healthy bowel motions:

- **Insoluble fibre** – which bulks up the stool to stimulate the bowel motion to keep things moving through the gut.

Good sources of insoluble fibre include wheat bran, wholegrain breads and cereals.
- **Soluble fibre** – absorbs fluid in the bowel to make the stool soft and easy to pass. Foods containing soluble fibre include oats, legumes (beans like kidney beans and baked beans, lentils, chickpeas, split peas etc.), stone fruit such as peaches, cherries etc, other fruit such as bananas, pears, dried fruit such as figs, dates, prunes, and fruit juices, such as pear or prune juice.

Good sources of soluble fibre include legumes, fruit and vegetables.

Fluids – Having a fluid intake of around 6-8 glasses a day is important in managing digestive health. Drinks that contain caffeine such as tea and coffee, and alcohol should be taken in moderation as they act as diuretics and increase the amount of fluid excreted making less fluid available for the bowel motions.

Water is the best fluid for good digestive health.

Exercise – Regular exercise and movement promotes regular bowel movements. For those who have limited mobility, regular laxative use in addition to the above

dietary recommendations will be likely required to assist healthy bowel motions. Laxatives must be prescribed by the person's GP only.

For more information on digestive health, refer to the Bowel Care Guidelines within the Health and Wellbeing Policy and Practice Manual, Volume 1.



4.4 Medication and Food

4.4.1 How does medication affect nutrition?

Prescription and non-prescription medications can affect nutrition by interfering with the body's ability to absorb and metabolise certain nutrients.

Some medications can cause various side-effects which in turn can affect food intake and weight. For example poor appetite, nausea, vomiting, abdominal pain, diarrhoea, constipation, dry mouth, sore throat and changed taste can cause weight loss. Some medications can increase the appetite and reduce metabolic rates thus causing weight gain.



Tips to help with medication interactions

Refer to the Consumer Medicines Information (CMI) sheet when the person is prescribed new medication.

Understand the medications you are administering and their side effects.

Record any side effects and contact the person's GP.

Ensure the GP regularly reviews the person's medications.

4.5 Food allergies and intolerances

People can have reactions to food which appear as food allergies and intolerance.

Allergies are different to intolerance but can present similarly and proper diagnosis is required as different medical and dietary management is required.

4.5.1 Food allergies

Food allergy is usually an immediate reaction to a specific problem in the food by the immune system. Reactions can range from mild to life threatening. Skin prick tests or blood tests can be done to indicate the likelihood of allergy. An allergy specialist is required to interpret the results and identify the likely cause of the symptoms or reactions.

Common causes of food allergies include:

Eggs	Peanuts
Milk	Tree nuts
Sesame	Wheat
Fish	Soy
Seafood – oysters, mussels, clams	Prawns, crab, lobster
Certain food additives and preservatives	Some fruit and vegetables e.g. kiwi fruit

Symptoms of food allergies

- rash around the mouth
- hives
- swelling of the eyes
- vomiting
- breathing difficulty
- vomiting and nausea
- anaphylaxis.



If a person displays any of the above symptoms, ensure they see their GP immediately or present to the nearest hospital for assessment.

Where a person experiences breathing difficulty, call an ambulance by dialling **000** immediately.

Note any diagnosed food allergies in the person's **My Eating and Drinking Profile** and ensure they are supported to avoid coming in contact with those foods they are allergic to.

4.5.2 Anaphylaxis

Anaphylaxis is a life threatening form of allergic reaction and emergency medical treatment is needed. Anaphylaxis can occur immediately after exposure to a food, insect or medication. Foods that are commonly known to cause anaphylaxis include peanuts and treenuts, egg, milk, fish and seafood.

Symptoms of anaphylaxis:

- noisy or difficult breathing
- swelling of the tongue
- swelling of the throat
- hoarse voice or difficulty talking
- wheezing or coughing
- children become pale and floppy
- loss of consciousness and collapse.

People who are at risk of anaphylaxis are prescribed and must carry their adrenalin injector called an EpiPen[®] or Anapen[®] with them at all times. They must have their pen with them in an easily accessible place. It is recommended that all carers, friends and relatives know how to identify the signs of anaphylaxis, know where the adrenalin injector is kept and how to administer it.

The person experiencing anaphylaxis will likely not be able to self administer their adrenalin.

A person who has been medically assessed as having anaphylaxis must have a management plan for anaphylaxis written by their GP or specialist.

Support workers must follow the prescribed plan exactly. If support workers are in doubt, administer the adrenalin anyway and call an ambulance immediately.

Following the hospital discharge, the person is supported to see their GP, who may refer them to an allergy specialist if the response is new or the cause is unknown.

A dietitian can develop a diet that is free of implicated foods. A dietitian can also provide tips and ideas on safe eating out in the community.

4.5.3 Food intolerances

Food intolerance is a chemical reaction by the nervous system to the natural chemicals and additive that occur in a range of foods. People with food intolerance do not need to completely avoid that food.

People can tolerate different amounts of the food before they experience any symptoms. The symptoms can occur immediately or can take up to 3 days to appear.

Common causes of food intolerances:

- the milk sugar – lactose
- natural chemicals in foods including salicylates, amines and glutamate
- certain food additives e.g. preservatives, artificial antioxidants, colours and flavour enhancers.

4.5.4 Symptoms of food intolerance

Adults:

- hives and swelling
- stomach and bowel irritation
- headaches and migraines
- fatigue
- aches and pains of the joints
- mouth ulcers
- blocked and runny nose.

Children:

- irritable behaviour
- reflux
- eczema
- nappy rash.

It is important to note that the symptoms of food allergy and food intolerance are quite similar.

Most people with food intolerance usually react to more than one food chemical. To diagnose food intolerance, a specialist food intolerance dietitian must be consulted. They will prescribe the RPAH⁵ elimination diet which requires a food diary to record the types of foods eaten and the symptoms and regular follow up.

A dietitian can help the person to examine a food label and determine if it contains anything that will cause a reaction.

Check the labels of all food. Labelling laws state that any potential allergen must be listed on the label.

4.5.5 Coeliac disease

Coeliac disease is an auto-immune condition that often presents as gut symptoms such as bloating, diarrhoea or nutrient malabsorption such as iron deficiency because gluten (a protein found in wheat, rye, barley and oats) causes damage to the small bowel. It is thought that 1% of the population has coeliac disease and 50% of people do not present with gut symptoms.

People at higher risk of coeliac disease include those with a family history of coeliac disease, diabetes, Down syndrome, Turner syndrome and Williams syndrome.

It is very important if coeliac disease is suspected that tests are done to confirm or rule it out. A lifelong gluten free diet is required for a person diagnosed with coeliac disease. A specialist coeliac disease dietitian is required to provide dietary education for following the gluten free diet.

If you think a person may have a food allergy or intolerance, take them to the GP for an assessment and further referrals.

⁵ RPAH Elimination Diet Handbook <http://allergy.net.au/ibs-information/>

	Food allergy	Food intolerance
Presentation	<p>Acute Reactions:</p> <ul style="list-style-type: none"> • Rash around the mouth • Hives • Swelling of the eyes • Vomiting • Breathing difficulty • Anaphylaxis 	<p>Recurrent and Chronic Reactions:</p> <ul style="list-style-type: none"> • Hives and swelling • Stomach and bowel irritation • Headaches and migraines • Fatigue • Aches and pains of the joints • Mouth ulcers • Blocked and runny nose <p>Children:</p> <ul style="list-style-type: none"> • Irritable behaviour • Reflux • Eczema • Nappy rash
Age of onset	Infants and toddlers (usually)	Any age
Family history	<ul style="list-style-type: none"> • Asthma • Hay fever • Eczema • Food allergy 	<ul style="list-style-type: none"> • Irritable bowel syndrome • Hives • Headaches • Mouth ulcers
Reaction time	Immediate: minutes to 1-2 hours	Hours to days
Same reaction every time?	Usually the same	Reactions vary
Cause	Immune	Non immune: nervous system
Food Triggers	<p>Specific food proteins:</p> <ul style="list-style-type: none"> • Egg • Milk • Peanut 	<p>Varies:</p> <ul style="list-style-type: none"> • Natural food chemicals • Food additives: preservatives and colours • Some cereals

	Food allergy	Food intolerance
	<ul style="list-style-type: none"> • Tree nuts • Sesame • Fish • Shell fish • Wheat • Soy 	<ul style="list-style-type: none"> • Dairy products • Flavour enhancers
Diagnosis	Skin prick test (Radioallergosorbent test) Measures the immune system response to antigens	Elimination diet Food chemical challenges RPAH elimination diet and challenges
Diet	Complete avoidance of responsible food proteins	Diet modifications Make sure intake is below the threshold
Outcome	Usually outgrown: egg, wheat, milk and soy Usually lifelong: peanut, tree nuts and seafood	Lifelong Symptoms come and go

5 Planning Healthy Menus and Meals

5.1 How to plan a menu

5.1.1 What is a menu?

A menu is a planned list of food and drinks that are to be prepared for particular meals over a period of time.

It is important that the people living in an accommodation support service, and their support workers, are involved in menu planning.

5.1.2 Why plan a menu?

Support workers may be required to provide assistance in preparing and serving meals.

A routine can be difficult to maintain when support workers are entering and leaving the house at different times, or are only providing drop in support.

A planned menu is a guide to providing nutritious food consistently, and caters to the individual needs of everyone in the house.

5.1.3 Menu planning:

- Is a way of upholding a person's right to choose the food and drink they like.
- Allows healthier and more nutritious meals to be included in the menu.
- Saves time and money by simplifying shopping.
- Decreases the amount of wastage that results from purchasing unwanted foods.
- Ensures all the ingredients are available for preparing and cooking meals.
- Caters for special dietary needs.
- Maintains interest in food by increasing the variety of ingredients and meals.



5.2 Menu planning with a person with disability

It is important that the person is involved in menu planning and is given a voice in deciding what food and drinks are included.

Participating in menu planning will:

- enable the person to make choices and voice their preferences, increasing control and participation in their daily life
- help the person to increase their confidence and self-esteem in decision making
- develop skills and knowledge
- promote communication and cooperation between people residing in the group home and support workers.

5.2.1 What information is needed for menu planning?

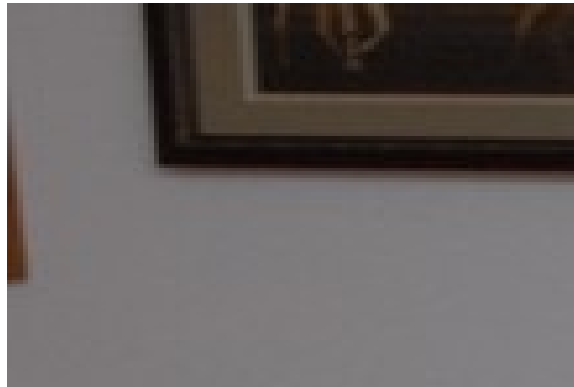
When developing a menu for more than one person it is important to gather some information from each person or support workers that know the person well. The person's **My Eating and Drinking Profile** will provide information about the following:

- allergies or intolerances
- favourite meals, drinks and snacks
- preferred meal times, settings and environments
- special requirements, such as texture modification

- special dietary needs, such as low fat or high fibre
- whether the person has texture modified foods and fluids.

A person's health condition may influence dietary choices. It is important to understand whether the person is over- or underweight, has diabetes, high cholesterol or high blood pressure.

The person's schedule or routine will also determine which meals they will be able to enjoy in the community.



5.3 Culture and religion

It is important to consider the person's culture and religion when planning a menu.

Some cultures and religious groups have strict guidelines about the foods that people can eat and how the food is prepared and stored.

Religions which observe dietary restrictions include:

- Islam
- Hinduism
- Judaism
- Buddhism
- some Christian denominations e.g. Seventh Day Adventist.



The best way to learn about a person's cultural and religious preferences, is to get to know them and their family, and to involve them in decision making when planning menus.

5.3.1 Successful menu planning meetings

- Ensure all support workers understand how each person uses their menu planning communication aids and how best to support them.
- Schedule the menu planning meeting for when you are able to spend enough time with each person without being distracted.

- Ensure all communication aids are at hand and ready for use before the meeting begins.
- Minimise other distractions by turning off television, radio etc. and allowing the phone to be diverted to messagebank or answering machine.
- Be aware of the person's preferences by referring to their My Eating and Drinking Profile.
- Be aware of any special diets or dietary requirement e.g. weight reducing, weight increasing or texture modified foods and fluids.
- Ensure the person understands their preferences are important and valid.
- Give the right amount of time and involvement to each person to ensure they are able to communicate their preferences and are not left out of the process.
- Where a person is unable to engage in choice making or clearly make their preferences known, support workers and people in the person's support circle should work together along with the information in the My Eating and Drinking Profile to make a choice on the person's behalf.
- Structure the meeting in a person centred way by allowing the people with short concentration spans to participate first so they can move to a preferred activity.
- Be flexible in supporting each person to make their choices as they may be more comfortable making their choice known in private.
- Be prepared to have some unsuccessful meetings at first, as each person becomes familiar with the purpose of the meeting. Remember, an unsuccessful meeting is an opportunity to learn and improve.
- If the menu planning meeting must be cancelled, ensure it is rescheduled promptly.



5.3.2 Steps to consider when planning a menu

Seven steps to consider when planning a menu:

1. Identify each person's preferences including any cultural and religious considerations by referring to the **My Eating and Drinking Profile**.

2. Plan each meal including breakfast, lunch and dinner. Begin by using the meal choices described earlier in this section or use a recipe book such as the *Easy Step by Step Cookbook*.
3. Include everyone in planning by asking those who can, to list 2 options they want at each meal. If anyone is unable to voice what they would like, ensure to include any known likes. Use communication aids if necessary to ensure non-verbal people are able to communicate their choices.
4. Create a chart containing the chosen meals.
5. If the person has a Mealtime Management Plan, Enteral Nutrition Plan or special diet, consider the suitability of the meals. Make changes where prescribed such as texture modifying meals or offering meat substitutes for vegetarians. As well as the foods that people like, menus must include the appropriate amount of nutrients.
6. Complete the **Menu Planning Checklist**, finalise all changes, ensure all cultural and religious preferences are addressed and that everyone is happy with the meals on the chart.
7. Prepare a shopping list including all the meals for the week and display the menu plan where everyone, including all support workers can see it.

5.3.3 Creating the menu

Menu planning will be most successful if you understand what meals and snack options are healthy.

The inclusion of seasonal foods is a very important part of menu planning as they are often appropriate for the season, e.g. mandarins and oranges in winter to assist with immunity, watermelon in summer for hydration.

Seasonal foods are also economical due to their abundance at that time of the year.

For more information about buying seasonal foods, visit the following websites:

<http://www.vnv.org.au/site/files/seasonalfoodcalendar.pdf>

<http://seasonalfoodguide.com/sydney-nsw-seasonal-fresh-produce-guide-fruits-vegetables-in-season-availability-australia.html>

It is important that all meals are healthy including, breakfast, lunch, dinner, desserts and snacks, to ensure enough energy and nutrients are being consumed.

5.3.4 Self audit tool for menu planning

The **Menu Planning Checklist** in the 'Tools and templates' section can be used to ensure everyone's needs are being met and meals being offered and chosen are healthy and nutritious.

Use the Menu Planning Checklist to ensure good practice when planning menus.

6 Food Budgeting and Shopping

6.1 Handy tips to consider when shopping

Grocery shopping is a regular requirement for every household. To get the most out of the shopping trip it is essential to plan ahead by writing a list based on the meals chosen at the menu planning meeting and all other meals to be provided during the week and sticking to it.

This will not only stop items being forgotten but also prevent anything being bought that isn't needed.

A good way to involve everyone who would like to participate in mealtime activities is to get them to help develop the household shopping list from the menu.

Refer to the menu plan created during the menu planning meeting and:

- work out the quantity of each ingredient necessary to feed all members of the household
- write a detailed list of all ingredients and quantities needed for meals. For example Monday night's meal is hamburgers, this requires 6 bread rolls, 1 lettuce, 3 tomatoes, 1 can beetroot, 6 slices of cheese
- don't forget to add snacks during the week
- further categorise the list into food groups, for example 'fruits', 'dairy', 'bread and cereals', 'vegetables', 'meats, legumes and eggs'
- check what ingredients are already in the fridge, freezer and cupboard and cross off the list to prevent double ups
- try not to shop when the person is hungry as this may lead to impulse buying.
- when shopping, check the 'use by' or 'best before' dates of food, it's best to leave purchasing of food that goes off quickly to closer to the day of use.

Examples of 'use by' or 'best before' labels to look out for when shopping.



Use the **Healthy Food Group Shopping List** template located in the Nutrition and Swallowing, 'Tools and templates' section.

6.2 Tips for including everyone in making a shopping list

1. Use a booklet style rather than a single page list to help to keep the list organised. Buying a folder is a great idea.
2. The list may be divided into two columns with one column describing the food (including both the name of the food and a picture if possible) and the second column identifying if the item needs to be purchased ('need to buy').
3. Type up a template to re-use every week, this could also be divided into the food groups.
4. Print the template out and laminate each sheet of paper – if there is no laminator at the group home check whether there is one that can be accessed at the District Office or Communication Resource Library.
 - a. simply tick the blank box when the item is needed
 - b. take a photocopy for use
 - c. rub the list clean to start again.
5. Once the menu is written, check the pantry and fridge and determine the ingredients needed for the week.
6. Everyone can go through the laminated folder and tick which items are needed.
7. Take the folder or photocopies of the laminated pages on shopping trips.













6.3 Involving people with disability in the shopping process

Getting everyone involved in the food shopping for the home can be a great way for individuals to interact with their community and improve communication skills in a new environment.

1. Write the shopping list as suggested above.
2. Develop a folder containing the names and pictures of all the familiar foods from the five foods groups.
3. Using the template below insert the different headings and associated pictures e.g. milk, yoghurt, cheese, (as per example of fruit below).
4. Work with the person to go through the list and tick the items that are needed for the meals during the week.

Example template for a simple shopping list based on a food group.

Food item	Need to buy
FRUIT	
Bananas 	
Apples 	
Grapes 	
Oranges 	
Pears 	
Watermelon 	

6.4 Shopping with a budget

It is important to consider the budget when menu planning and shopping. Spending over the budget one week may mean missing out on essentials the next.

Currently, each group home pays for groceries using funds from a budget that is sourced from each person's rent. The budget is calculated based on a monetary value per person per week. For example, if the budget was \$80 per person per week, the grocery budget for a house where 5 people reside should be approximately \$400 per week.

Refer to the principal business analyst in your district to confirm the dollar figure and overall grocery budget for the group home when developing the grocery budget.

There are a few general guidelines that can be followed to help keep the shopping within the budget and reflective of the healthy eating pyramid.

- Spend the most money on foods people should eat the most of such as vegetables, fruits, cereals, breads and fresh meats.
- Spend a moderate amount on foods people should eat moderately such as dairy foods.
- Spend the least amount of the budget on those items that should be eaten the least such as cakes, biscuits, soft drink and cordials.



6.4.1 Tips for budgeting

1. Only buy foods on the shopping list.
2. Compare prices in the supermarket: compare the net weight of the items (i.e. how much each item costs per 100g).
3. Some plain label options can be just as good as the branded options.
4. Look out for specials in the supermarket or catalogues, but only buy them if they are needed.
5. Shop around. For example, a local fruit and vegetable market may have cheaper prices than major supermarket chains.
6. Where possible shop in bulk if the weekly budget allows. For example, buying breakfast cereals in large boxes can be cheaper than buying lots of smaller boxes.
7. Substitute some fresh fruit and vegetables with canned or frozen varieties.

6.5 Tips for successful shopping

- Invite the person who assisted with making the shopping list to accompany you on the shopping trip.
- To ensure food safety for all, purchase food from supermarkets and food outlets that are of the highest quality, which provide well packaged and fresh foods. See section 8.5 for more information.
- Link the food with the recipe, for example 'we have to buy some milk to put in the scrambled eggs'.
- Use recipes cards such as those in the *Easy Step by Step Cookbook*.
- Plan ahead and allow extra time for the shopping.
- Encourage the person to interact with others, for example, asking a shop assistant where an item is located.
- Emphasise healthy eating principles where possible, for example 'wholegrain bread is great, it gives us energy and fibre'.
- Encourage the person to assist with putting the groceries onto the counter, carrying bags to the vehicle and unpacking groceries at home.



7 How to read food labels

Food labels contain information which helps to make an informed decision when selecting foods. Labels display a variety of characteristics of the food, such as the nutrition information, ingredients and storage directions.

7.1 What is nutrition information?

The nutrition information panel will provide details on the nutrient content of a product:

- energy (kilojoules or calories)
- protein
- fat (total fat and saturated fat)
- carbohydrates (total and sugar)
- sodium (indicating salt content).

Other important nutrients to look out for are:

- fibre
- calcium.

7.2 Nutrition information panel

- The key is to use the 100g column of the panel to compare similar products and choose the best option.
- When comparing fibre content, use the per serve column.
- It is best to avoid comparing foods using the 'per serve' column as each serve of food can be different.
- Generally, the product with the least amount of fat, saturated fat, sugar and salt will be the best option.
- Talk to the person's dietitian about what to look for in labels to suit the needs of the person.

7.3 NSW Food Authority guide to the nutrition information panel

Use the nutrition information panel (NIP) to compare the amount of nutrients (per 100g) in products as well as the serving size.

To compare two similar products, check if they have the same serving sizes first. If not, then compare the nutrient content (e.g. grams of fat) using the **Quantity per 100g** column.

NUTRITION INFORMATION			
SERVINGS PER PACKAGE: 3 SERVING SIZE: 150g			
	QUANTITY PER SERVING	QUANTITY PER 100g	
Energy	608kJ	405kJ	
Protein	4.2g	2.8g	
Fat, Total	7.4g	4.9g	
- Saturated	4.5g	3.0g	
Carbohydrate	18.6g	12.4g	
- Sugars	18.6g	12.4g	
Sodium	90mg	60mg	

Always check the Quantity per 100g column and try to pick foods in the green column.

Check the quantity per 100g of	This is a LITTLE	This is a LOT
Fat	3g per 100g or less	More than 20g per 100g
Saturated Fat	1.5g per 100g or less	More than 5g per 100g
Sugar	5g per 100g or less	More than 15g per 100g
Salt (Sodium)	0.3g per 100g or less	More than 1.5g per 100g

Source: EatWell, Your guide to healthy eating, Food Standards Agency, UK, 2007

Using the Quantity per 100g column on the NIP means you're comparing like for like. Don't forget to check how much you're eating too and look at the total number of serves per pack.

For further information on food labelling:

Visit: www.foodauthority.nsw.gov.au

Call: 1300 552 406

7.4 What are nutrition claims?

Nutrition claims are used by manufacturers to try to emphasise the nutritional benefits of their product to the buyer. It is important to have a general understanding of what these claims mean. There are specific guidelines which must be followed for manufacturers to make nutrition claims. These include:

Reduced fat or salt: at least a 25% reduction from the original product.

Low fat: less than 3 grams per 100 grams of fat for solid food or 1.5 grams per 100 grams for liquid foods.



Low salt or sodium: 120mg of sodium or less per 100g.

No added sugar: may contain natural sugars such as those found in fruit but no additional sugar. Look for how much total carbohydrate there is per serve – 15g is good.



Light or lite: does not necessarily mean the product is low in fat or energy. It can refer to a light colour or texture. Instead, look at the nutrition information panel to see if it is low fat (<3g per 100g), especially low in saturated fat, not high in sodium (<120mg per 100g) and moderate in carbohydrate (15g per serve).



7.5 What is the ingredients list?

All ingredients contained in a product will be listed in order of weight. The ingredient present in the largest amount will be listed first and the ingredient in the least amount listed last. There will also be a percentage marking with how much of the characterising ingredient is in the food. The characterising ingredient is the ingredient that is mentioned, associated or emphasised in the name of the food, for example, the amount of apple in apple pie or strawberries in strawberry yoghurt.

LOW FAT PEACH & MANGO YOGURT

INGREDIENTS: SKIM MILK, CONCENTRATED SKIM MILK, SUGAR, FRUIT (7.0%) (PEACH (3.6%), RECONSTITUTED MANGO PUREE (2.2%), MANGO (1.2%)), CREAM (FROM MILK), GELATINE, FRUCTOSE, THICKENER (1442) (FROM TAPIOCA), FLAVOURS, ACIDITY REGULATOR (331), NATURAL COLOUR (160b), LIVE CULTURES (S. THERMOPHILUS, B. LACTIS, L. ACIDOPHILUS).
CONTAINS: MILK AND MILK PRODUCTS.

Common ingredients may also be listed as other names.

Alternative names for sugar include:

- Corn syrups, lactose, raw sugar, sucrose, malt, maltose, monosaccharide, disaccharides.

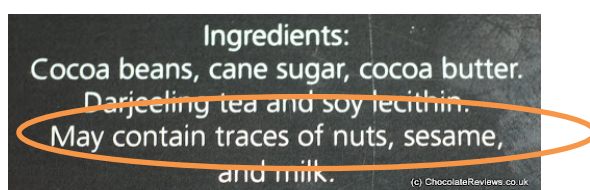
Alternative names for fat include:

- Butter, shortening, coconut or palm oil, cream, lard, mayonnaise, vegetable fats, copha, dripping, cream, hydrogenated oils.

Alternative names for salt include:

- Baking powder, celery salt, sodium, onion salt, sodium bicarbonate, sodium nitrate, stock powder/cubes.

Information for people who have an allergy / intolerance to ingredients can also be found on food labels. Food products containing the major allergens (peanuts, tree nuts, eggs, milk, sesame, gluten, soybeans, shellfish) will be listed as 'may contain'.



7.6 Food additives

Included in the ingredient list are any additives used in the product such as preservatives, colours, flavour enhancers and flavours.

They are displayed using their functional name or an identifying E number.

A small minority of the population are sensitive to food additives.

Reactions to food additives include: hives, diarrhoea, other digestive disorders and asthma.

Over the years food additives have been the subject of many studies which have led to advice that the following food additives should be avoided by people who have known reactions to them:

102, 104, 110, 122, 123, 124, 127, 129, 132, 133, 142, 143, 151, 151, 155, natural colour 160b (annatto)

Preservatives:

Sorbates: 200-203

Benzoates: 210-219

Sulphites: 220-228

Nitrates: 249-252

Propionates: 280-283

Synthetic Antioxidants:

310-312, 319-321

Flavour enhancers:

620-625, 627, 631, 635, Hydrolyzed vegetable protein



8 Food safety and hygiene

8.1 What is food safety?

Food safety refers to safe food handling practices and involves the handling, storage, preparation and cooking of food in a way that will minimise risk of food borne illness and food poisoning.

People have the right to access quality food that has been prepared in a safe manner. This can be achieved with a food safety program and understanding how to prevent food poisoning.

Due to medical conditions, physical issues, at times poor nutritional status and the reliance on others to prepare and provide healthy foods, people with disability are at a greater risk of food-borne infections.

It is critical to have an understanding of the importance of food safety, food borne illness, food poisoning and how it is caused.

If you believe a person has food poisoning, seek medical assistance immediately.



8.2 What is food borne illness and food poisoning?

8.2.1 Food borne illness

Food borne illness occurs when the food poisoning variety of bacteria are present in food in large numbers.

It is important to know the bacteria cannot be seen with the naked eye, may have no smell and may not affect the taste of the food, therefore it is extremely difficult to detect. Most types of food poisoning can be prevented if food is handled properly. This is why safe food handling practice is crucial.

Food poisoning symptoms can be mild or severe. It can take up to 3-4 days before any signs or symptoms occur after eating contaminated food.

Some signs and symptoms can last from 1-7 days and include fever, headaches, vomiting, diarrhoea, nausea and abdominal cramps.

A person can be a victim of food poisoning when eating out but 20% of all food poisoning occurs in the home.

8.2.2 Food poisoning

Food poisoning will only occur if the following risk factors are all present:

- there is bacteria in the food
- the bacteria has had time to grow and multiply
- the bacteria has moisture and nutrients
- the temperature has been right for the bacteria to multiply.

You can prevent all instances of food poisoning by ensuring each of these risk factors is eliminated.



8.2.3 Bacteria

Bacteria are the most common cause of food poisoning. Food poisoning bacteria are usually present in food, in small harmless quantities.

If given the opportunity and the risk factors are present, food poisoning bacteria will multiply to a level that will cause illness and infection if ingested.

Some foods that have a higher level of risk include chicken, seafood, eggs, meat, dairy products, smallgoods, cooked rice and prepared salads such as coleslaw and pasta salad.

Time to multiply

Bacteria need time to multiply to an amount that will cause infection. Bacteria multiply extremely quickly.

It takes only 3-4 hours for bacteria to multiply into a large enough number to cause food poisoning.

In seven hours, a single bacterium can multiply into more than 2 million bacteria.

Moisture and nutrients

Bacteria need a food source to grow and multiply.

Bacteria can grow if moisture and nutrients are present. Typical foods that provide ideal conditions for bacterial growth are meat, poultry, seafood, eggs, dairy products and rice.

Foods that tend not to have bacterial growth are dry foods such as flour, powdered milk, dry biscuits etc.

Temperature

Growth of bacteria only occurs between the temperature range of 5°C and 60°C.

This is known as the 'temperature danger zone'. Only cooking or reheating foods at or above 75°C will kill bacteria. Refrigeration does not kill bacteria.

Foods must be kept out of the temperature danger zone by ensuring they are refrigerated at less than 5°C and heated above 60°C.

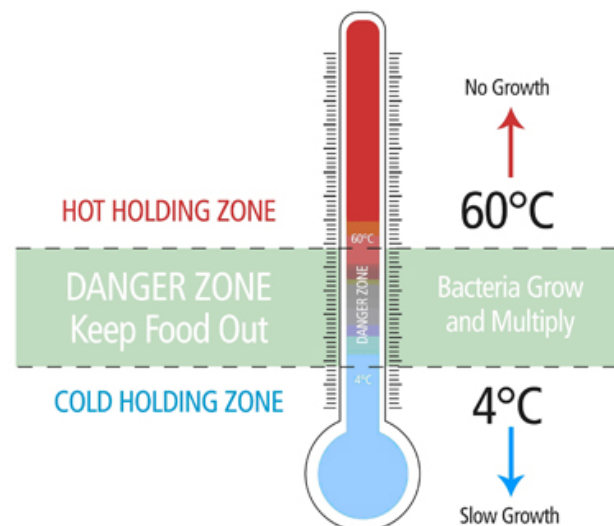
If food is left out uncovered at room temperature for example 22°C, it is sitting within the temperature danger zone and is at high risk.

To prevent any temperature control related factors, ensure:

- refrigerators are kept below 4°C
- hot foods are kept above 60°C
- cooked foods are reheated rapidly until the centre of the food reaches 75°C.

The same precaution must be used to ensure food bought from take away food shops and foods cooked on barbeque are stored in the oven or fridge until eaten.

Frozen foods must be thawed in either the refrigerator or microwave, and not on the kitchen sink or on a bench at room temperature.



8.3 Hygiene and safe food handling

Anyone handling food must ensure they maintain the highest standard of personal hygiene and cleanliness.

Food poisoning bacteria can be carried on people's bodies and are easily spread from person to person. Bacteria are easily spread from the body to the hands, and to any food the person is preparing.

Bacteria can also be spread to hands by making contact with other people, pets, money, clothing, telephones, ATMs, public areas, toilets and other general and household items.



8.3.1 Hand Washing

Washing your hands is the best way of reducing the chances of passing on bacteria and other germs. When washing your hands, complete the following steps:

1. Wet your hands with clean water – warm if possible and apply a soap that lathers and covers the hands.
2. Lather the soap by rubbing hands together ensuring you cover all surfaces including the back of your hands, your wrists, between your fingers and under your fingernails.
3. Continue to rub hands together for about 20–30 seconds (as long as it takes to sing 'happy birthday to you' twice in your head).
4. Thoroughly rinse hands under running water to remove soap and any residual germs and bacteria.
5. Use disposable paper towels or an air dryer to dry hands. You can also use a paper towel to turn off the tap and to open the door handle.

Always support the people with disability to wash their hands in the same way.

8.3.2 Wash your hands before you begin and after the following:

- ✓ Any interruption in preparing food
- ✓ Using the toilet
- ✓ Using the phone
- ✓ Handling dirty dishes
- ✓ Handling garbage and other waste
- ✓ Coughing, sneezing or blowing your nose
- ✓ Touching your ears, nose, mouth or other parts of your body
- ✓ Having a cigarette
- ✓ Patting, touching or feeding pets
- ✓ Sorting dirty laundry
- ✓ Supporting a person with personal hygiene
- ✓ Changing an incontinence aid



8.4 Food storage

All food, especially meat, poultry, fish and raw vegetables have the potential to cause sickness if not stored correctly.

8.4.1 Guide for storing food in the refrigerator

- Ensure the temperature of the fridge is accurate by testing it with a thermometer.
- After shopping, place food in the fridge as soon as you return to the house.
- Regularly clean the fridge and freezer ensuring surfaces are wiped clean.
- Avoid overcrowding the fridge with food.
- Store raw meats, seafood or poultry on the lower shelf so drips do not contaminate other foods.
- Do not leave any foods uncovered in open containers, cans or jars.
- Remove and dispose of any foods that are out of date.



8.4.2 Refrigerator and freezer storage guide for beef (example)

Beef cut	Refrigerator (4° or less)	Freezer (0° or less)
Fresh Beef		
Steaks, Roasts	3-4 days	6-12 months
Beef strips – stir fry, kebabs, casserole	2-3 days	6-12 months
Mince	1-2 days	3-4 months
Cooked beef		
All	3-4 days	2-3 months

8.4.3 Guide for thawing frozen foods

To avoid food safety risks when thawing foods, ensure you do the following:

- ✓ Food that has been thawed cannot be re-frozen without being cooked first. This is to ensure that you kill any bacteria on the food which may be in the process of multiplying.
- ✓ If food is not cooked prior to returning to the freezer, the bacterial growth will slow down and once the food is thawed will multiply rapidly causing food poisoning.
- ✓ Use the bottom shelf of the refrigerator to thaw food – to ensure nothing can drip down onto lower shelves.
- ✓ Do not thaw food at room temperature (e.g. on a bench in the kitchen) as this will be within the temperature danger zone and will increase the rate at which bacteria multiply.
- ✓ Food will thaw more quickly if originally frozen in smaller batches.
- ✓ Cook any food that has been thawed immediately (to prevent further growth of bacteria).

8.4.4 Guide for storing foods in the pantry

- ✓ Regularly clean the pantry area by wiping all surfaces.
- ✓ Remove and dispose of foods that are out of date.
- ✓ Ensure cupboards are cool and dry.
- ✓ Ensure all foods are kept in covered food grade containers.
- ✓ Store unused food containers upside down so dust and dirt do not get into them.

- ✓ Wash food containers carefully before using them.
- ✓ Do not re-use containers that are designed for a single use.
- ✓ Store chemicals and household cleaning supplies away from food.
- ✓ Ensure pests and pets do not have access to food storage areas.



8.5 Safe food shopping

Food safety begins with safe food. Purchasing food from the supermarket and food outlets that is of the highest quality and well packaged will ensure food safety is more easily achieved.

- ✓ Buy foods from clean stores where the food looks fresh.
- ✓ Check the 'use by' or 'best before' date and ensure you only purchase items that are still within that date and can be used before the date indicated.
- ✓ Avoid purchasing self serve foods for example nuts, dried fruits etc. as these foods are often open to people sneezing, coughing, or touching with their hands.
- ✓ Avoid packages with tears or broken seals, tins with dents, leaking cartons, cans or bottles, cracked eggs, or products loose in vacuum sealed bags (seal has been compromised).
- ✓ Avoid products with mould, discolouration or infestation by insects.
- ✓ Avoid any dairy or chilled products such as meat that has been left out of the refrigerator or freezer.
- ✓ Do not leave foods to sit in a vehicle, instead, return to the home and unpack into cupboards, refrigerator and freezer immediately.
- ✓ Shop in the coolest period of the day if possible during hot weather e.g. morning or evening.
- ✓ Take an insulated cooler bag or EskyTM to transport fresh or frozen foods in.
- ✓ Park vehicle undercover if possible.

8.6 Safe food preparation

Food preparation should occur quickly. If an interruption is necessary, place all prepared foods in a refrigerator until preparation can resume.

A high level of personal hygiene is extremely important for safe food preparation.

To ensure bacteria are not spread to foods while they are being prepared you must ensure the following:

- ✓ Hands are washed prior to preparing food and if preparation is interrupted.
- ✓ Hair is tied back or covered.
- ✓ Jewellery other than plain banded rings or sleepers or studs is removed.
- ✓ Protective clothing, e.g. a clean apron, is worn over clean regular clothing.
- ✓ Fingernails are kept short.
- ✓ Food is not eaten during meal preparation.
- ✓ There is no spitting or chewing gum during meal preparation.

8.6.1 Illness and food preparation

If staff or the people they support are ill in any way, they should not be involved in preparing food.

Germs and bacteria are easily passed from a sick person to the food they are preparing. Do not handle food if you have the following symptoms:

- diarrhoea
- vomiting
- upset stomach
- nausea
- excessive coughing or sneezing
- fever or high temperatures
- sore throat
- discharge from eyes, ears or nose that is due to an infection such as a cold.



If you have any of these symptoms, you should access sick leave to prevent further spread of germs to the people you support, or to your co-workers.

8.6.2 Wounds / injuries and food preparation

Any open wounds or cuts on arms and hands must be covered by a waterproof dressing such as a brightly coloured waterproof Band-Aid®.

A brightly coloured dressing will be more easily found if it falls off.

Disposable gloves should also be worn to protect any wounds on hands.

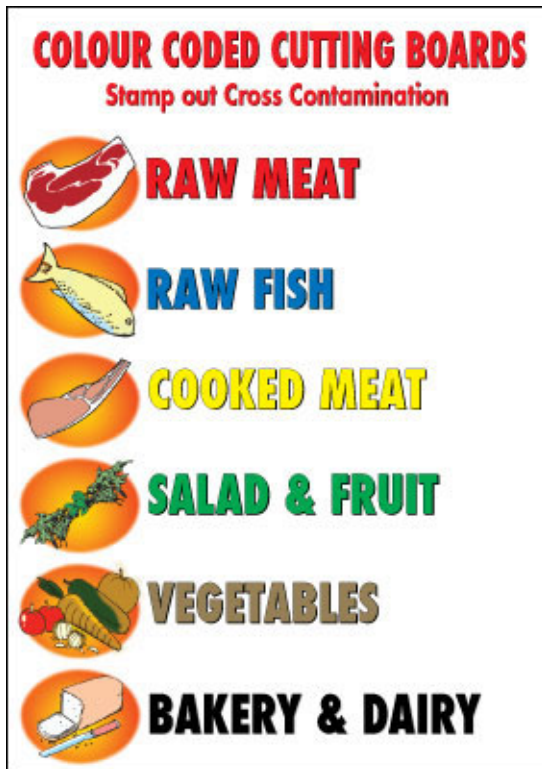
Gloves and dressings should be changed regularly.



8.6.3 Avoiding cross contamination during food preparation

Avoid risk of cross-contamination whilst preparing foods by doing the following:

- ✓ Ensure all surfaces in the work area are clean, including surfaces used for cutting.
- ✓ Wash hands with hot soapy water and dry them well between handling raw and cooked food.
- ✓ Use different sections of the kitchen bench and different cooking utensils to keep raw and cooked foods separate. Washing benches and utensils between use will also prevent cross contamination.
- ✓ Do not place utensils used for tasting food back into food.
- ✓ Wash knives after each use and before using on other food.
- ✓ Wash raw vegetables and fruit before use.
- ✓ Wash all garnishes especially raw parsley.
- ✓ Minimise the handling of cooked foods – use clean tongs and utensils.
- ✓ Avoid touching the surfaces of plates and bowls etc. that have come into contact with foods or drink.
- ✓ Complete the cooking process close to the time of serving food. Serve food immediately after cooking (before the temperature drops into the 'temperature danger zone').
- ✓ When using chopping boards, ensure bacteria are not spread between foods by using different chopping boards for different foods.



To avoid cross contamination between foods, use separate colour coded chopping boards for raw meats, raw fish and seafood, cooked meat, raw salads and fruit, raw vegetables, bakery and dairy.



8.6.4 Cleaning of food preparation areas

- ✓ Use hot water and detergent or a dishwasher.
- ✓ Air drying is best.
- ✓ To dry: use paper towels and then throw out or use a clean towel each time.
- ✓ Change and wash tea towels after each use.
- ✓ Change and wash aprons after each use.
- ✓ Change and wash or dispose of wet sponges and dishcloths regularly. Wash by soaking in soaking agent then using very hot soapy water.
- ✓ Scrub plastic chopping board with bleach and detergent regularly.
- ✓ Clean surfaces from the top down so you are not soiling surfaces that have just been cleaned. Wipe cupboard doors then wipe walls then benches then floors.
- ✓ Wash all work surfaces, including drawer and cupboard handles, before and after you use them.
- ✓ Wash dishes, pots and pans as soon as possible after a meal.
- ✓ When buying kitchen utensils and equipment ensure it is easily washed.



8.7 Cooking foods safely

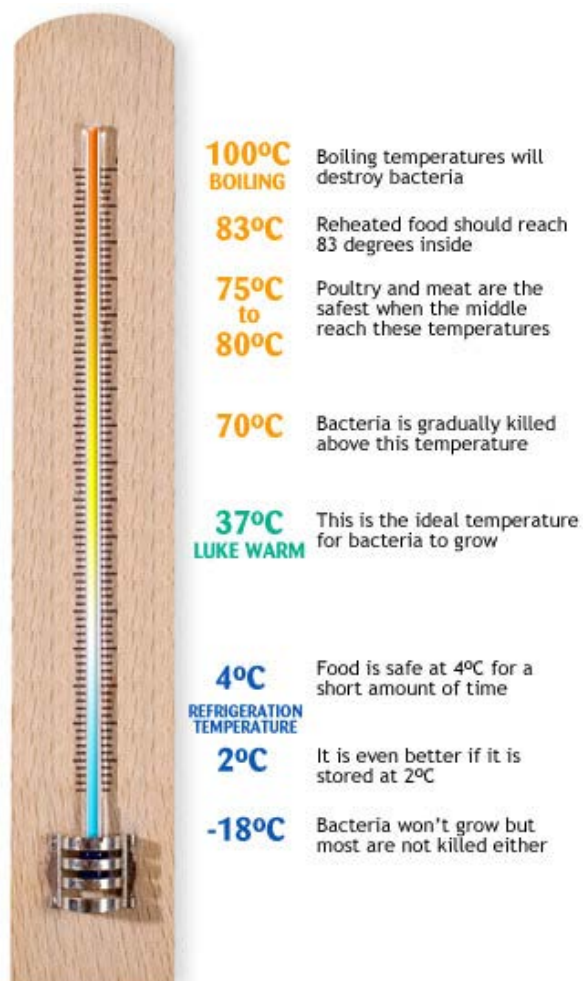
To ensure food poisoning does not occur, foods must be cooked at a temperature above 70°C.

8.7.1 Reheating cooked foods

Food that needs to be reheated must be reheated rapidly to prevent it staying in the temperature danger zone.

To maintain food safety standards when reheating food ensure you do the following:

- Bring food to the boil and simmer for at least five minutes before serving.
- Ensure the centre of the food reaches above 75° C then allow it to cool before serving.
- Use a food thermometer to ensure the right temperature has been reached.
- Stir the food as it is reheating to ensure it is heated throughout.
- Defrost frozen foods before re-heating to ensure the food reaches the correct temperature in the centre quickly.



8.7.2 Cooking using a microwave

A very easy way to reheat foods is by using a microwave. It is important to ensure the food has been reheated correctly from a food safety point of view. Microwaves cook food from the outside inwards which can create food safety risk.

To ensure food safety is upheld while using a microwave, ensure you do the following:

- ✓ Cover food with a microwave safe lid or microwave safe plastic wrap. Covering the food securely will trap steam and cook the food more evenly, and also prevent food from splattering.
- ✓ Rotate and stir foods while cooking to avoid uneven cooking or uncooked areas – 'cold spots'.
- ✓ Turn over any large food items that cannot be stirred.
- ✓ Prior to cooking, cut food into similar sized pieces so they will cook evenly. Otherwise, put larger pieces toward the outside of the dish where they will cook more quickly.
- ✓ Do not cook or reheat food in plastic takeaway food trays or non microwave safe containers as they are not designed to be heated at high temperature and may emit toxic fumes or chemicals into the food.
- ✓ As microwaved food continues to cook once the microwave has stopped, let food stand for three to five minutes before testing. This will help avoid burns and also give a true indication of whether the food is ready to be eaten.
- ✓ Ensure the microwave is kept clean by using recommended cleaning products and methods.

8.7.3 Thawing foods using a microwave

When thawing foods, avoid food safety risks by doing the following:

- ✓ Remove any packaging or wrapping, place in a microwave safe dish and cover with a lid or microwave safe plastic.
- ✓ Rotate and re-arrange food for more even reheating.
- ✓ Separate food items and remove any food that has already thawed to allow other foods to thaw.



8.7.4 Cooling foods (oven and microwave)

It is best to cook meals as close as possible to the time they will be served.

Sometimes it is necessary to cook ahead of time. Food cooked for later use should be cooled in the shortest amount of time possible.

Ensure all foods that require cooling are cooled in the fridge and not the bench top.

Allow space around the food in the fridge so cool air circulates well.

Cover any food that is cooling with plastic wrap or place in a food grade container.

8.8 Safe use of leftover foods

Leftover food can become contaminated with bacteria quickly so it must be handled with care.

As food is served hot onto plates, package any remaining foods and store it in the fridge immediately. If further servings of food are required, access from fridge and reheat until centre of food is above 75° C.

Leftover foods are best used the following day, for example, to make lunch. Otherwise, it is safest to cook the required amount and avoid having leftovers.

If leftover foods have been cooled correctly, they can be left in the fridge for up to two days.

Store all leftover food on the top shelf of the fridge to ensure uncooked foods do not drip onto them.

If it is thought leftover food will not be used within two days, store in the freezer until needed.

8.8.1 Example of how to label leftover food

Clearly label leftovers by sticking on a label displaying the following:

Contents: e.g. Chicken Casserole
Date Cooked: 12 July 2012
Dispose after (date)

8.9 Safe handling of food eaten away from home

When preparing food that will be eaten away from home such as packed lunches, picnics and barbeques, it is critical that food safety practices are followed.

8.9.1 Packed Lunches

When making packed lunches, ensure they are made then placed in the fridge until just before the person leaves the house for the day.

Leaving food at room temperature until lunchtime can be a food safety risk. Ensure foods are packed into an air tight food safe container and ensure they are kept cool with either of the following methods:

- Storing in the fridge at the location (work environments and day programs often have refrigerators that can be used for storing lunches).
- Inserting an ice brick, frozen drink or cold pack to maintain cool temperature.
- Using a cold pack, thermal lunchbox or Esky™ as a lunch box.
- Avoid including perishable foods that have just been cooked or warmed such as meat loaf or boiled eggs. These foods must always be cooled in the refrigerator preferably overnight to avoid bacteria growing on them.

Try to pack foods which are safe for packed lunches such as:

- unpeeled fruit
- unopened packs of tinned fruit or dried fruit
- fruit juice in an unopened sealed container
- nuts (ensure the person or people they mix with do not have allergies)
- frozen unopened long life ultra heat treated (UHT) milk drinks, yoghurt or milk drinks
- unopened tins such as baked beans, spaghetti, fish, soup
- dried biscuits.



8.9.2 Barbeques

Barbeques are an easy and tasty way of preparing meals at home and in public areas. Food safety principles apply to barbeques.

The following guidelines will ensure barbeque cooking is safe:

- Keep meat in the refrigerator or Esky™ until just before cooking.
- Do not re-use a plate that has held raw meat without washing it first.
- Keep foods such as pates, dips, spreads and other perishable foods refrigerated until just before serving.
- Return leftover cooked foods to the refrigerator immediately until they are needed. If away from home, ensure you have an insulated Esky™ or food carrying container with plenty of ice blocks to keep it cool.
- Ensure all food left out on tables is covered up by plastic wrap or a clean cloth and keep insects such as flies away.
- In cool weather perishable foods can stay out on table for up to four hours safely then will need to be disposed of.
- In hot weather, perishable foods may remain out on a table for only two hours before being disposed of.

Cook the following meats until the juice runs clear:

- chicken
- stuffed meats
- hamburger patties
- sausages
- pork.



8.9.3 Picnics

Ensure you follow these recommendations:

- Keep hot food HOT.
- Keep cold food COLD.
- Cook foods, cover and cool in the fridge the night before for picnics. Placing warm food into an insulated cooler will not safely cool the food.
- Ensure salads are ready to eat and meats are already cut to minimise handling.
- Pack hand sanitiser and disposable wipes for cleaning hands and surfaces.
- Pack plenty of ice blocks.

9 Texture Modified Foods and Fluids

9.1 When a person has dysphagia

People with dysphagia have difficulty swallowing and may even experience pain while swallowing (odynophagia). Some people may be completely unable to swallow or may have trouble safely swallowing liquids, foods, or saliva.

What is dysphagia?

- Medical term for the symptom of difficulty swallowing
- It can result from abnormalities in any of the complex steps necessary for swallowing
- A person with dysphagia can have difficulty eating or drinking or both
- The person is at major risk from the food or fluid entering their airway by accident

Signs and symptoms of dysphagia

- Coughing or choking (during or after swallowing)
- The person reports they have difficulty swallowing
- Drooling
- Food gets stuck in the throat
- Wet gurgly voice
- Frequent chest infections
- Unexplained weight loss
- Food / liquid spilling from mouth
- Loss of appetite
- Long time to swallow

Risk factors associated with dysphagia

- Aspiration – food / fluid entering airways without coughing or choking
- Choking
- Dehydration and malnutrition
- Poor oral hygiene
- Illness and death

How is dysphagia managed?

- Modification to foods and fluids
- Diet advised by dietitian to suit modified foods and fluids
- Modified utensils and equipment
- Posture modification
- Seating
- Environmental modifications
- Swallowing therapy and exercises given by a speech pathologist

A person with dysphagia requiring a modified diet must have a Mealtime Management Plan prescribed by their GP or allied health professional.

9.2 Texture modified foods

9.2.1 Australian standard for texture modified food

In Australia, there is a standard set of texture modified diets⁶ to help people who have difficulty eating and swallowing. A texture modified meal is a meal that has been changed to a different consistency to make it easier to chew and swallow.

Texture A – Soft diet

- Naturally soft foods e.g. ripe banana
- Cooked/cut foods
- Can be chewed but not necessarily bitten
- Easily broken with a fork
- Should be moist/served with sauce or gravy to make it easier to swallow
- Food pieces should be no bigger than 1.5cm x 1.5cm

Texture A - Soft

Food may be naturally soft or may be cooked or cut to alter its texture.



⁶ <http://www.safeswallowing.com.au/Australian-Standards-for-Texture-Modified-Foods-and-Fluids.htm>

Texture B – Minced and moist

- Soft and moist foods
- Foods should easily form into a ball
- Easily mashed with a fork
- Can be a thick puree with lumps but lumps are soft and rounded
- Food pieces should be no bigger than 0.5cm x 0.5 cm

Texture B - Minced and Moist

Food is soft, moist and easily mashed with a fork; lumps are smooth and rounded.



Texture C – Smooth pureed

- Smooth and lump free
- Same consistency as commercial pudding
- Should not contain lumps
- May have a grainy quality
- Moist and cohesive
- Should be able to hold its shape on a spoon

Texture C - Smooth Pureed

Food is smooth, moist and lump free: may have a grainy quality.



9.2.2 Texture modified diet

Depending on the extent of the chewing or swallowing difficulties, a person may require a diet that is soft, minced and moist or smooth pureed. These diets are called 'texture modified'.

A person who has been prescribed a modified diet must have a Mealtime Management Plan (MMP) prescribed by either their GP or allied health professional (AHP) such as a speech pathologist and accredited practising dietitian. The MMP

provides directions on the person's diet, texture of the diet and how to modify the person's food.

It is important not to try and guess which diet the person you support should be eating.

The process of determining the right diet for a person begins with completion of the **Nutrition and Swallowing Risk Checklist** (see Nutrition and Swallowing Procedures). The person's GP uses the Nutrition and Swallowing Risk Checklist to refer the person to the relevant AHP to prescribe the diet, support and equipment for the person using the **Mealtime Management Plan Template**.

The person's dietitian or speech pathologist will list foods to be modified and to what texture in the person's MMP.

9.2.3 Tips for presentation of texture modified foods

Well presented food looks more inviting to eat.

Serving attractively presented foods is a good way to entice a person to eat more who is underweight or has specific tastes.

Present foods in a defined shape – bake minced or blended foods in a loaf tin and serve as slices on a plate or shape pureed foods into patties.

Use a variety of colour – for example, use at least three colours, such as green vegetable, a yellow vegetable and some blended casserole.

Keep main ingredients separate – do not mix all the food to be served into one mixture where possible. Even just serving one main ingredient separately makes a meal look more appetising.







9.2.4 What to consider for a person on a pureed diet

Sometimes when foods are pureed, the nutritional concentration of the food can be reduced. To make up for this, it is sometimes necessary to find other ways to increase the energy and/or protein value of the pureed food.

Some of these suggestions relate to dairy products which can be of different consistencies. It is important to keep in mind that if the person you are supporting has to have thickened drinks, then all other liquids the person has during mealtimes or at snack time, have to be the same thickness.

For example:

- Sauces or gravies that come with a meal have to be thickened to the same consistency as their drinks.
- Dairy drinks containing added skim milk powder or Sustagen powder for increased energy, still need to be thickened to the same thickness as prescribed by the speech pathologist.

Handy Hints for modifying food textures	
	A food processor or blender is the best kitchen tool to use for minced and pureed diets.
	Do not use water to add moisture as this can change the consistency and can also weaken the nutrient content.
	To make sure meals (especially puree) are not too dry, you can add small amounts of fluid such as gravy, sauce, stock or milk and cream. Make sure they are well blended through so the consistency does not change.
	Stewing or slow cooking are the best ways to prepare meats/casseroles for soft diets.
	Use herbs and spices to make meals more tasty.
	For pureed and mashed foods, blend/mash each item separately and present individually on the plate.

9.2.5 Ways to increase protein or energy:

- Use high protein milk (add 3 tablespoons of skim milk powder to 600ml milk) or add Sustagen™ / Proform™ powder (neutral flavour) to full cream milk.
- Add sugar or honey to foods.
- Sprinkle Sustagen™ on breakfast cereals.
- Use a thick spread of margarine or butter.



- Add cream or high protein milk to egg dishes.
- Cook meats in vegetable oil or crumb them.
- Serve meats with plenty of gravy or creamy sauce.
- Choose full cream dairy products.
- Sprinkle grated cheese over soft cooked vegetables, pasta or stews.



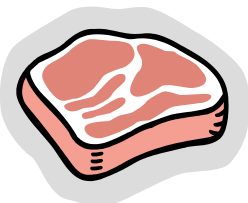

9.2.6 Guide to foods to use and avoid when preparing texture modified foods and fluids.

The following tables are general information guides to the types of foods which should be used or avoided when preparing texture modified foods and fluids.

Where a person has a diet which includes texture modified foods and fluids, support workers must only provide foods which have been recommended by the AHP and recorded in the person's Mealtime Management Plan.




9.3 General guide Texture A – Soft diet – foods to eat


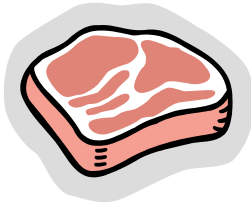

Food Group	Use	Avoid
Breads and cereals 4-7 serves per day 	<ul style="list-style-type: none"> • Soft bread and bread rolls, crumpets or muffins (white or wholemeal) • Rolled oats, semolina, FarexTM, cold breakfast cereals (CornflakesTM, Rice BubblesTM, Weet-BixTM) • Soft pancakes • Soft pasta dishes, well cooked rice 	<ul style="list-style-type: none"> • Bread with seeds, grains, nuts, fruit • Crusty breads, toast • Hard cereals e.g. toasted muesli • Cereals with dried fruit • Dry rice or pasta
Vegetables 4 or more serves per day 	<ul style="list-style-type: none"> • Well or soft cooked vegetables • Soft skinned cooked legumes e.g. baked beans • Canned beetroot • Vegetable soup • Vegetable juice 	<ul style="list-style-type: none"> • Raw vegetables • Hard vegetables e.g. corn, broccoli stalks • Roast potato • Peas

Food Group	Use	Avoid
<p>Fruit</p> <p>2 serves per day</p> 	<ul style="list-style-type: none"> • Mashed banana, mango • Mashed or blended fruit • Blended canned fruit • Stewed and blended fruit • Fruit snack pack • Fruit juice 	<ul style="list-style-type: none"> • Fibrous fruit e.g. pineapple • Fruit with hard seeds e.g. passionfruit • Whole fruit • Fruit peel • Dried fruit
<p>Dairy</p> <p>3-4 serves per day</p> 	<ul style="list-style-type: none"> • All milk and milk drinks, flavoured milkshakes, smoothies, iced coffee/chocolate • Yoghurt • Chocolate mousse, custard, rice pudding/creamy rice, ice-cream • Grated or melted hard cheese, soft cheeses • Sour cream 	<ul style="list-style-type: none"> • Hard cheeses • Yoghurt with nuts, seeds or hard pieces • Cheese with added fruit or nuts
<p>Meat</p> <p>1-2 serves per day</p> 	<ul style="list-style-type: none"> • Soft meat dishes • Roast meats diced or minced • Scrambled or poached eggs • Soft skinned cooked legumes (baked beans) • Meat based soups • Diced or shaved meat • Smooth peanut butter 	<ul style="list-style-type: none"> • Sliced roast meats or grills • Meat with gristle/fat • Crumbed or fried fish • Hard pastry • Casseroles with large pieces • Dishes with crisp topping • Nuts and seeds
<p>Extras</p> <p>Up to 3 serves per day</p> 	<ul style="list-style-type: none"> • Oil (preferably canola or olive) • Margarine/butter • Cream, sour cream, coconut cream • Bread pudding • Ice-cream 	<ul style="list-style-type: none"> • Meat pies, sausage rolls, quiche, pizza • Dry coarse cakes • Boiled sweets, crunchy peanut butter • Hard chocolate • Biscuits





Food Group	Use	Avoid
	<ul style="list-style-type: none"> • Soft moist cake • Plain chocolate • Soft drink 	<ul style="list-style-type: none"> • Potato chips, corn chips • Anything that is not a soft texture

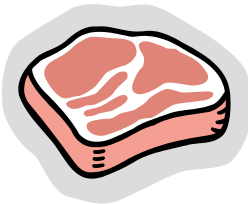

9.4 General Guide Texture B – Minced and moist diet

Food Group	Use	Avoid
<p>Breads and cereals 4-7 serves per day</p> 	<ul style="list-style-type: none"> • Rolled oats, semolina, sago, rice cereal, Weet-Bix™ softened with milk • Quick instant porridge • Baby rice cereal • Small moist pieces of pasta • Well cooked rice with plenty of sauce, creamy rice 	<ul style="list-style-type: none"> • Breads with seeds or fruit • Bread rolls • Hard cereals that don't soften easily • Rice that does not hold together • Crisp or dry pasta
<p>Vegetables 4 or more serves per day</p> 	<ul style="list-style-type: none"> • Cooked vegetables easily mashed with a fork • Mashed avocado, tinned asparagus • Baked beans • Tinned vegetables mashed • Vegetable juice or soups 	<ul style="list-style-type: none"> • Raw vegetables • Coconut • Corn • Fibrous vegetables that require chewing
<p>Fruit 2 serves per day</p> 	<ul style="list-style-type: none"> • Natural soft fruit e.g. mashed banana • Mashed or blended fruit • Blended canned fruit • Stewed and blended fruit • Pureed fruit • Fruit juice 	<ul style="list-style-type: none"> • Fibrous fruit e.g. pineapple • Fruit with hard seeds e.g. passionfruit • Whole fruit or peel • Dried fruit • Fruit too hard to be mashed with a fork

Food Group	Use	Avoid
<p>Dairy</p> <p>3-4 serves per day</p> 	<ul style="list-style-type: none"> • All milk and milk drinks, flavoured milkshakes, smoothies, iced coffee/chocolate • Yoghurt • Custard • Rice pudding, creamy rice • Soft cheeses • Cheese or white sauce 	<ul style="list-style-type: none"> • Hard cheeses • Soft sticky cheese (e.g. camembert) • Yoghurt with nuts or seeds • Cheese with added fruit or nuts • Cheese slices and cubes • Bread and butter pudding
<p>Meat</p> <p>1-2 serves per day</p> 	<ul style="list-style-type: none"> • Minced meat, chicken, fish with sauce • Casserole dishes • Soft egg dishes (scrambled) • Well-cooked legumes mashed or blended • Meat based soups with small lumps • Smooth peanut butter, tahini 	<ul style="list-style-type: none"> • Sliced roast meats or grills • Meat with gristle/fat • Crumbed or fried fish/chicken • Casseroles or soups with large pieces • Fried egg, bacon, sausages • Nuts and seeds • Cold meats
<p>Extras</p> <p>Up to 3 serves per day</p> 	<ul style="list-style-type: none"> • Oil (preferably canola or olive) • Margarine/butter • Cream, sour or coconut cream • Fruit sorbet, fruit ice blocks • Ice-cream • Soft moist cake • Plain chocolate 	<ul style="list-style-type: none"> • Pastries, biscuits, cakes • Bread based pudding • Boiled sweets, crunchy peanut butter • Anything that is not a soft texture

9.5 General Guide Texture C – Smooth puree diet

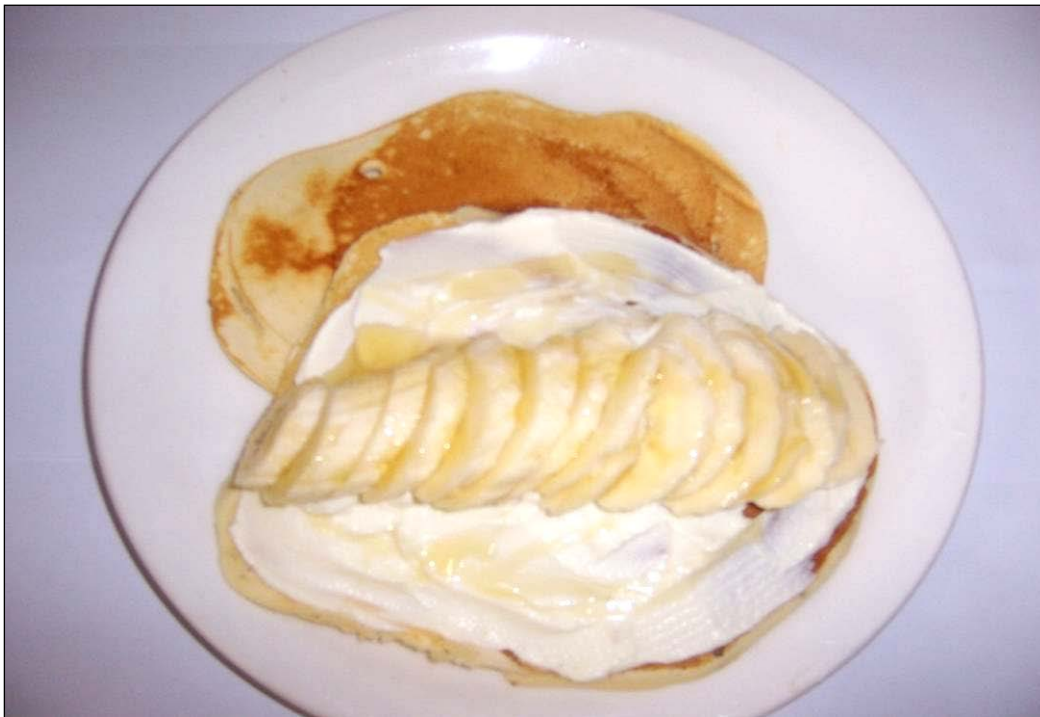
Food Group	Use	Avoid
<p>Breads and cereals 4-7 serves per day</p> 	<ul style="list-style-type: none"> • Smooth, lump free/strained breakfast cereal (pureed rolled oats, semolina, sago, baby rice cereal) • Smooth, strained pasta and rice blended into soup or casserole • Pureed creamy rice 	<ul style="list-style-type: none"> • Whole rice or pasta • Breads with seeds or fruit • Bread rolls, crumpets, muffins • Cereals that do not soften easily or with fruit, nuts or seeds
<p>Vegetables 4 or more serves per day</p> 	<ul style="list-style-type: none"> • Pureed cooked vegetables, skin removed, no lumps • Vegetable soups pureed • Pureed cooked legumes • Pureed tinned vegetables • Vegetable juice 	<ul style="list-style-type: none"> • Raw vegetables • Vegetable skins/seeds • Coconut • Vegetables that do not blend to a smooth consistency e.g. corn
<p>Fruit 2 serves per day</p> 	<ul style="list-style-type: none"> • Pureed ripe fresh fruit e.g. banana • Pureed tinned fruit • Pureed tinned pie fruit • Stewed and pureed fruit • All pureed fruit snack packs • All fruit juices • Frozen fruit juice 	<ul style="list-style-type: none"> • Fibrous fruit e.g. pineapple • Fruit with hard seeds • Fruit skins • Whole fruit • Fruit peel • Dried fruit
<p>Dairy 3-4</p> 	<ul style="list-style-type: none"> • All milk and milk drinks, flavoured milkshakes, smoothies, iced coffee/chocolate • Smooth yoghurt • Smooth custard 	<ul style="list-style-type: none"> • Yoghurt with fruit pieces, nuts, seeds • Semi-hard and hard cheeses • Soft sticky cheese • Cheese with added

Food Group	Use	Avoid
<p>serves per day</p>	<ul style="list-style-type: none"> • Very soft cheese e.g. smooth ricotta 	<p>fruits or nuts</p> <ul style="list-style-type: none"> • Cheese slices or cubes • Course or textured puddings
<p>Meat</p> <p>1-2 serves per day</p> 	<ul style="list-style-type: none"> • Pureed meats, chicken, fish with a sauce or gravy • Pureed legumes with no husk • Scrambled eggs • Pureed meat based soups • Smooth peanut butter 	<ul style="list-style-type: none"> • Meat that is not pureed • Soup with any lumps • Nuts and seeds • Cold meats
<p>Extras</p> <p>Up to 3 serves per day</p> 	<ul style="list-style-type: none"> • Mayonnaise • Cream, sour cream • Fruit sorbet, fruit ice blocks • Milk based soft dessert – crème caramel, chocolate mousse • Pureed rice pudding • Ice-cream with no lumps • Creamy smooth soups • Cocoa, MiloTM, drinking chocolate 	<ul style="list-style-type: none"> • All pastries, biscuits, cakes • Gelled cakes that are not soaked or contain lumps • Pastries/pies • Course or textured puddings • Any foods that are not smooth pureed

9.6 Texture A – Soft diet – Steps for modifying a meal

Recipe from the *Easy Step by Step Cookbook*.

Banana, ricotta and honey pancakes



Banana, ricotta and honey pancakes can be modified to suit Texture A – Soft diet, Texture B – Minced and moist and Texture C – Smooth pureed. Follow the steps below to see how.



Complete steps 1 – 5 as per the Cookbook.

For Texture A – Soft diet: continue making the banana, ricotta and honey pancakes following the steps 6 to 9 in the cookbook.

6



7



- Place cooked pancake on the plate and spread a tablespoon of ricotta cheese over the top.

- Slice banana with a knife.

8



9



- Spread banana over pancake as shown.
- Drizzle a teaspoon of honey over the pancake.

- Serve pancakes immediately while warm.

9.7 Texture B – Minced and moist – Steps for modifying a meal

For Texture B – Mince and moist: the pancake and banana are too big for the person to swallow, so follow the steps below.

Follow Steps 1 – 5 from the Easy Step by Step Cookbook.

6



- Mince the pancake separately with a blender or whisk.

7



- Finely chop the banana.

8



- Dollop ricotta and drizzle the honey over the top of the pancake.
- Serve immediately while still warm.

9.8 Texture C – Smooth puree – Steps for modifying a meal

For Texture C - Smooth puree.



- Blend the pancake and banana together.
- Serve on the plate in the shape of a ball.
- Top with ricotta.
- Drizzle honey.

9.8.1 Ideas to help puree foods



Milk and milk products

- Use full cream milks in milkshakes, smoothies or eggflips.
- Flavour with cocoa, Ovaltine™, Milo™, Activate™, ice cream toppings, puree fruit and ice cream.
- Powdered milk: add to milk to make a high protein milk, can add to meat dishes.
- Sustagen™ / Proform™: Add to milk, milkshakes, soups, cereals and fruit juices (ready to drink tetra packs available from supermarket).
- Yoghurt: eat strained or add to puree fruit, cereal or fruit juice.
- Ice cream: add to milk based drinks.
- Cheese: grated cheese may be added to soups, pureed vegetables and meats. Blend smooth ricotta cheese.



Meat and Meat Alternatives

- Eggs: add to soups, custards, milk based puddings, blended meat, vegetables, fruit juices. Try scrambled eggs.
- Meat: puree with gravy, soups or pasta dishes. Try adding smooth peanut butter to soups, try using neutral Sustagen™ / Proform™ to increase energy.



Breads and Cereals

- Cereals: porridge, semolina, Weet-Bix™ and baby cereal can be blended with high protein milk, cream, yoghurt, sugar, honey or pureed fruit. Try blended pasta or rice dishes.
- Soups: Tinned soups made with high protein milk, blend and strain if necessary. Add butter, cream, beaten eggs, grated cheese or milk powder prior to serving.



Fruits and Vegetables

- Vegetables: Blend with milk, soup, gravy, cream, butter, cheese, stock or appropriate sauce. Try vegetable juices or mashed potato/pumpkin thinned with gravy, stock or milk.
- Fruit: Fruit juices, blended tinned or stewed fruit with ice-cream, jelly, custard, yoghurt, or fruit juice. Try blended soft peeled fresh fruit thinned with extra juice.



Fats and Oils

- Add butter, margarine, oils, salad dressings, mayonnaise to vegetables or soups.
- Creams may be added to soups, sauces, custards, cereals, milkshakes, and eggflips.
- Fats should be added after pureeing.

9.9 Thickened Fluids

9.9.1 Australian standard for thickened fluids

A person who has difficulty swallowing or swallowing fluids safely will need to have a Mealtime Management Plan (MMP) prescribed by either their GP or an AHP.

In Australia, there are 3 levels of thickened fluids in addition to normal.

A person prescribed thickened fluids must be supported to drink enough fluids during the day, in line with their MMP, to prevent them from becoming dehydrated.

Normal thickness (thin fluids) this means any 'regular' drink that hasn't been thickened at all for example, water, milk, juice, tea, coffee etc.

Mildly Thick – Level 150

Fluid runs freely off the spoon but leaves a mild coating on the spoon.

- Steady, fast flow
- Pours quickly from a cup but more slowly than regular unmodified fluids
- Similar to thickness of nectar
- Can be drunk from a cup

Mildly Thick Level 150

Fluid runs freely off the spoon but leaves a mild coating on the spoon.



Moderately Thick – Level 400

Fluid slowly drips in dollops off the end of the spoon.

- Slow flow
- Similar to thickness of honey
- Cohesive and pours slowly from a cup
- Difficult to drink using a straw
- May need to use a spoon to drink the fluid

Moderately Thick Level 400

Fluid slowly drips in dollops off the end of the spoon.



Extremely Thick – Level 900

Fluid sits on the spoon and does not flow off it.

- No flow
- Holds shape on spoon
- Fluid is too thick if spoon stands upright
- Cannot be poured from a cup or drunk through a straw
- Similar to thickness of pudding

Extremely Thick Level 900

Fluid sits on the spoon and does not flow off it.



9.9.2 How to thicken fluids

The person's prescribing GP or AHP will provide instructions for thickening fluid in line with the manufacturer's instructions.

Alternatively, pre-packaged drinks can be purchased that have already been thickened to the right consistency.

A person who requires thickened fluids should not be given normal drinks such as water, tea and coffee unless they are thickened.

Care should be taken with foods that melt quickly in the mouth and/or that have high water content. Foods like ice, jelly, ice-cream or watermelon break down quickly and act like thin fluids which the person may not be able to swallow safely.

How to thicken 200ml lemonade to 'Mildly thick' (Level 1) using Resource® Thicken Up Clear

- Use a measuring cup for liquid and a 250ml capacity drinking cup
- Place 3 scoops (using the scoop provided) of the powder into the drinking cup
- Add 10ml of water to the drinking cup and stir until a gel forms
- Immediately add 50ml of lemonade down the side of the drinking cup and stir for 10 to 20 seconds (the mixture should get thicker)

There are advantages and disadvantages of using either pre-thickened drinks or thickening agents which are outlined below:

	Advantages	Disadvantages
Pre-thickened fluids	<ul style="list-style-type: none">• No preparation• Come prepared to the correct thickness• Ready to use• Single serve	<ul style="list-style-type: none">• More expensive• Many, but not all flavours available
Thickening agents	<ul style="list-style-type: none">• Less expensive• Can be added to any liquid so any flavour drink can be thickened	<ul style="list-style-type: none">• Hard to get the right thickness• Fiddly to prepare• Time consuming• Thickness may change if not consumed immediately – affects swallowing safety

9.9.3 Commercial brands of thickened drinks

Resource[®] thickened drinks

Thickened water

- Thickened water with a twist of lemon
- 263ml ready to drink Tetra Paks[®]



Dairy thick

- Ready to drink thickened vanilla flavoured dairy drinks
- 263ml ready to drink Tetra Paks[®]
- Good source of protein



Dessert fruit

- Thickened dessert high in energy
- 125g ready to eat cup
- Moderately Thick Level 400



Thickened orange juice

- Ready to drink 263ml Tetra Paks[®]
- Added calcium, zinc, and vitamin C



Swallowade[®] thickened drinks

Water

- 180ml single serve
- Ready to drink
- Cholesterol, lactose and gluten free







Orange juice

- 180ml single serve
- Ready to drink
- No added sugar
- Cholesterol, lactose and gluten free



Flavour Creations® thickened drinks

Water	<ul style="list-style-type: none"> • 185ml single serve • Ready to drink • Suitable for diabetics • Cholesterol, lactose and gluten free 	
Orange juice	<ul style="list-style-type: none"> • 185ml single serve ready to drink • Cholesterol, lactose and gluten free • Low salt • Range of juices 	
Creamy dairy	<ul style="list-style-type: none"> • 185ml single serves ready to drink • Good source of protein • Low in cholesterol and lactose • Gluten free • Low salt • Comes in vanilla, chocolate, strawberry and banana 	
Cordial	<ul style="list-style-type: none"> • 185ml single serves • Ready to drink • Cholesterol, lactose and gluten free • Low salt • Variety of flavours • Diet cordials suitable for diabetics 	

10 Enteral Nutrition

Enteral nutrition provides a person with a nutritionally balanced liquid meal directly into their stomach or small intestine using a tube. It is prescribed for people who are unable to receive their nutritional needs orally.

Enteral nutrition is safe and offers the best support for people who, without enteral nutrition, would be at risk of malnutrition and become sick.

Enteral nutrition can be administered using various methods:

Bolus – administers the feed solution over a 15-20 minute period often via a syringe, several times a day.

Intermittent Gravity Drip – administers a set volume over 30-60 minutes several times a day.

Continuous – administers the full feed solution over a period of 8-24 hours, either by using a gravity drip or an enteral feeding pump set to a prescribed rate.

If the person needs enteral nutrition for a few weeks only, the tube is passed through their nose into their stomach or intestine.

If the person requires enteral nutrition for a longer period, an enterostomy feeding tube is inserted directly into their stomach - Percutaneous Endoscopic Gastrostomy (PEG) or their intestine – Percutaneous Endoscopic Jejunostomy (PEJ) during surgery.

Liquid nutrients can be given in a number of ways via syringe or pump.

A person who requires enteral nutrition must have an Enteral Nutrition Plan and there are two templates for the plan.

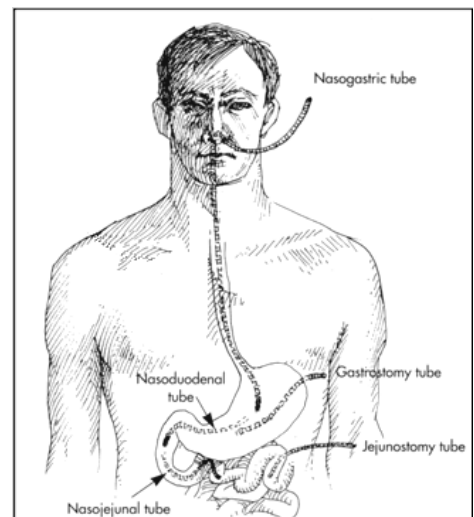
A person who receives enteral nutrition and also eats or drinks via their mouth must have an **Enteral Nutrition Plan - Plus Oral Intake**, and a person who receives enteral nutrition only must have an **Enteral Nutrition Plan – Nil by Mouth**.

Following completion of the Nutrition and Swallowing Risk Checklist the GP refers the person to an AHP such as an accredited practicing dietitian who prescribes an Enteral Nutrition Plan.

For more information relating to Enteral Nutrition Plans and templates, see the Nutrition and Swallowing Procedures.

Goals of providing enteral nutrition are:

1. To attain and maintain a healthy body weight.
2. To provide the best nutrition and hydration possible.
3. To reduce any risks or problems for a person requiring enteral nutrition.



10.1 Practice requirements for enteral nutrition

Only a qualified health professional such as a GP, specialised dietitian or speech therapist can make the decision to start someone on enteral nutrition and on which delivery method to use.

Only a dietitian can decide what type of formula to use.

The nutritional status of a person receiving long term enteral nutrition must be reviewed regularly by a dietitian in line with review requirements in the person's Enteral Nutrition Plan.

The person must be assessed annually by their GP as part of their regular health planning.

The person's Enteral Nutrition Plan must document the following:

- oral hygiene requirements
- cleaning of enteral equipment
- tube placements, changes, types and size
- formula type
- amount, rate and flow
- water or flush requirements
- environment for receiving enteral nutrition
- positioning
- review requirements
- regularity of feeding regime

Feeding regimes must consider the individual's personal needs including medical history, daily activities/routines, and community access.

The person's modesty and dignity should be respected at all times.



10.2 Enteral nutrition issues

There are many problems that can occur when a person is receiving enteral nutrition.

This table is a guide only for information purposes about some common issues experienced when providing enteral nutrition, and some strategies to support a person if a problem arises.

Refer to the person's Enteral Nutrition Plan (ENP) and follow the prescribed directions explicitly. Refer the person to their GP and or AHP immediately if an issue arises.

Problem	Cause	Action
Stomach discomfort, i.e. nausea, bloating, vomiting	<ul style="list-style-type: none"> - Incorrect formula - Delayed stomach emptying - Incorrect positioning of the person's body - Bowel obstruction 	<ul style="list-style-type: none"> - If bolus feeding, reduce the rate of feeding. The food may be getting to the stomach too quickly. Refer the person to their AHP. - If vomiting, stop feeding and contact their GP or local hospital. - Refer to the person's ENP for positioning guidance. - If a bowel obstruction is suspected refer immediately to their GP. - Check the person's bowel management plan and provide PRN if required.
Blocked feeding tube	<ul style="list-style-type: none"> - Not enough flushing of the tube - Medications 	<ul style="list-style-type: none"> - Refer to ENP for prescribed flushes. Refer to AHP if the problem continues. - GP to prescribe medication suitable for peg tube administration.

Problem	Cause	Action
Aspiration (breathing in food or fluid into the wind pipe and lungs)	- Laying flat while being fed	- Make sure the person is fed whilst sitting at a 45° angle and remains like this for a minimum of 30 minutes after enteral feeds.
	- Delayed emptying of the stomach	- Talk to the GP about medications that can help with stomach emptying.
	- The bolus feed volume is too large	- Talk to their dietitian about changing to either continuous feeding, or a more concentrated formula with less volume.
Constipation	- Not enough fibre in the diet	- Refer to dietitian to increase fibre in feeds. The dietitian may advise of any other products that could be used.
	- Not enough fluids	- Refer to AHP to see whether they should increase the number of water flushes of the tube.
	- Decreased physical activity	If possible try to increase their daily activity by walking or low intensity activities.
	- Medications	- Talk to the GP about medication options.

Problem	Cause	Action
Diarrhoea	- Medications	- Talk to the GP about whether the medication is causing diarrhoea. The GP may provide a different medication or an anti-diarrhoea medication.
	- Formula administration	- Refer to ENP. Refer to dietitian about giving bolus feeds more slowly to allow more time for the absorption of nutrients. Talk to the dietitian about continuous feeds.
	- Not enough fibre in the diet	- Refer to dietitian about increasing fibre.
Dehydration	- Frequent vomiting and diarrhoea	- Refer to GP and AHP immediately to determine the cause.
Tube dislodgement	- They may bump or accidentally or purposefully remove the tube	- Check the tube positioning at each feed, and adjust if necessary. - There must be an identified response to tube dislodgement recorded in the person's ENP. Refer to the person's ENP plan and take required action.

10.2.1 Supporting a person with enteral nutrition

Many people will need nutritional support at some point.

The important thing to remember is to follow the plan prescribed by the GP or AHP such as an accredited practising dietitian.

All staff must read and ensure they understand their responsibilities and requirements and sign the plan before they attempt to provide a person with enteral nutrition.

11 Mealtime Support

11.1 Cooking a meal together

Including a person in meal preparation enhances their feelings of involvement in the food they are eating, and also teaches important living skills.

The level of involvement can range significantly. The person will need to be given clear instructions before starting a food preparation task. The task should suit the person's skills and interest.

The person may be involved in meal preparation activities such as:

- observing in the kitchen
- reading recipes
- collecting ingredients from the pantry
- collecting cooking equipment (such as bowls and plates) out of cupboards
- putting prepared ingredients into a saucepan or fry pan
- peeling vegetables.

Refer to the safe food handling guidelines in Section 8.3 for tips on safe food handling practices.



When organising mealtimes, there are several things to consider for each person. It is important to remember that mealtimes are an important time of the day and a great opportunity for social interaction.

11.2 Mealtime medication administration

Many people with disability who have health conditions are prescribed medication which must be taken at mealtimes.

It is the support worker's responsibility to administer the medication to the person correctly by ensuring they follow the **6Rs** of medication administration.

1. **Right Person**
2. **Right Time**
3. **Right Medication**
4. **Right Dose**
5. **Right Route**
6. **Right Recordkeeping**



Foods and drinks can affect the way medication is absorbed in the person's body. Before administering medication, ensure you check the Consumer Medicines Information (CMI) sheet.

CMI's are available from the pharmacist and online at www.medicines.org.au or via the ADHC intranet

http://dadhc-intranet.nsw.gov.au/policies_resources/online_library#how_to_access_mims.

All medications including complementary therapies must be prescribed by a GP or AHP.

The person's medication chart must be signed off as each medication is administered.

11.3 Physical positioning at mealtimes

Correct positioning of a person's body at mealtimes provides protection for their airway. Generally, a person should be sitting up straight with their head slightly bent forwards while eating.

Correct positioning of the body supports safe eating and swallowing, and reduces the risk of aspiration and or choking as it ensures that food moves through the oesophagus into the stomach rather than going into the lungs.

A person who requires support to position their body at mealtimes must have a Mealtime Management Plan prescribed for them by their GP or AHP. It must include instructions for positioning the person safely during mealtime and afterwards.

The positioning of any equipment such as utensils, plates and bowls should also be noted in the person's My Eating and Drinking Profile, and Mealtime Management Plan if they have one.

11.3.1 Example of safe physical positioning at mealtime

I am facing the person at eye level



I should **not** feed the person from the side (*unless suggested by the speech pathologist*)



I am being careful **not** to tilt my head back



I should **not** tilt my head back this far



I am keeping my head bent down while drinking



I should **not** stand up to feed the person



11.4 Support before and during eating

11.4.1 Alertness

A person must be alert to eat and drink safely.

It is also good practice for the person to remain upright for at least 30 minutes after eating or drinking.

Remaining upright ensures gravity assists the food to move down into the stomach.

For the same reason, it is important to ensure people who suffer from reflux or gastro oesophageal reflux disorder (GORD) don't bend over within half an hour of finishing their meal.

11.4.2 Things to consider when supporting a person at mealtime

- If the person wears dentures, check that they fit and are in place.
- Sit the person up straight with hips at 90 degrees.
- Make sure that the person is awake and alert.
- Face the person and do not stand above them while feeding.
- Be slow and patient.
- Encourage self-feeding if possible, but watch to make sure they do not eat too fast.
- If you are feeding someone, let them swallow first before offering more food.
- Do not overload the fork or spoon.
- Stop feeding if the person becomes tired and is drowsy or falling asleep.
- Encourage the person to have an extra swallow or to cough and then swallow if they have a gurgly voice. Consider taking them to their GP or completing a new Nutrition and Swallowing Risk Checklist if the problem continues.
- Check for food remaining in the mouth when the meal is finished, and encourage the person to swallow it or spit it out.
- Try to limit conversation to between mouthfuls with people who are distracted easily, as this may affect their ability to swallow safely.

11.4.3 Utensils and equipment

A person may have specific utensils and equipment to assist them to eat and/or drink that are prescribed by the GP or AHP.

Instructions for supporting a person with specialised utensils or equipment must be included in the Mealtime Management Plan and My Eating and Drinking Profile.

Any prescribed equipment must be made available to the person at every meal.



11.4.4 Supporting fussy eaters

Fussy eaters are people who choose not to eat certain foods. They can be at risk of nutrient imbalance and nutrient deficiency due to their limited diet.

When providing support to eat, give encouragement and praise when new foods are tried and eaten. Encourage the person to eat as wide a range of foods as possible.

Work with the person, the team of support workers and the person's family or friends, to explore the issues around foods they dislike in case there is an easy solution.

Support the person to see their GP and or AHP if there is concern regarding their limited intake of foods.

Ensure the Nutrition and Swallowing Risk Checklist is completed to describe the foods the person does not eat.

12 Healthy Take Away and Restaurant Food

Experiencing a variety of different mealtime activities is important for people with disability. A change in the eating environment is an opportunity for a person to try new foods and experience new social settings.

A take-away meal once a week or once a fortnight can be included in a person's eating plan as part of a healthy balanced diet with regular exercise.

As at home, the person may need extra guidance in making healthy food choices when eating out in the community.

Take-away foods are often high in fat, salt and sugar and can lead to health problems such as obesity, diabetes and heart disease if consumed too frequently.

Portion sizes are generally much larger at take-away shops and restaurants, so it is important that the person does not eat more than they would at home.

Take-away food options can also be expensive and leave the person with less money to spend on other things.

However, it is possible to make healthy food choices when eating out.

12.1 Good drink choices when eating out

Always try to choose water as a drink to have at mealtimes.

Other great alternatives to soft drink or alcohol include low fat milk, a diet drink, soda, mineral water or a small serving of juice.

Ensure you offer drinks suitable for the person's dietary requirements.



12.2 Good food choices from a bakery

Try plain sponge cake, a fruit scone, fruit loaf or a low fat muffin instead of pastries, cream filled cakes and rich chocolate cake.

12.3 Good food choices from a fast food outlet

Always try to choose meals with grilled or barbequed lean meats such as grilled chicken breast or fish rather than crumbed or fried options. Remember chicken with the skin off is best.

Be careful of sauces that are high in fat such as mayonnaise. Choose low fat cheese if available. Opt for no bacon.

Try to avoid burgers from commercial fast food outlets. Buy a burger from a local corner store or fish and chip shop. Be sure to ask for plenty of salad such as lettuce, tomato, onion, beetroot and pineapple.

Another popular option is fish and chips. Healthier options can include choosing grilled fish and if you must have chips always choose thick cut or wedges. Choosing a small portion or sharing is also a good option, as is replacing chips with a side salad.



12.4 Good food choices from a pizza or pasta shop

Healthy pizza toppings are those with lots of vegetables and minimal cheese. Try to choose a thin base and limit processed meats such as bacon, salami and ham.

Choose a tomato based sauce such as napolitana, marinara or bolognaise when eating pasta and limit cream based pasta sauces.



12.5 Good food choices from an Asian restaurant

Vegetable based soups are a great way to start the meal.

Choose a stir-fry with beef, chicken or seafood and lots of colourful vegetables.

Steamed rice, noodles or vegetarian dim-sims are also a good choice. Try to limit deep fried dishes and fried rice.



12.6 Healthy home alternatives to takeaway foods

There are some great alternative ideas to ordering take-away which can add variety to mealtime activities and enjoyment to individuals through food.

Making healthier versions of the person's favourite takeaway meal at home is a great way to add variety at meal times.

For great recipes see the *Easy Step by Step Cookbook*.

Always remember to follow the guidelines for serving sizes.

12.6.1 How to make hamburgers at home

- Mix together lean mince with grated onion, zucchini and carrot, an egg and some breadcrumbs, make into small individual patties.
- Fry each patty in a fry pan with a spray of oil until cooked.
- Add the patty to a wholemeal/grainy bread roll or sliced bread and serve with salad ingredients, including lettuce, tomato, beetroot and carrot.



12.6.2 How to make pizza with wholemeal pita or lavash base at home

- Top with tin crushed tomatoes or tomato paste.
- Add capsicum, mushrooms, pineapple, basil leaves and reduced fat mozzarella cheese for a delicious vegetarian option.
- Or add a tin of tuna or lean ham or diced cooked chicken or other lean meat.
- Bake in the oven until the cheese is golden.



12.6.3 How to make fish and chips at home

- Cut potato or sweet potato in wedges, spray with light olive oil, add a sprinkling of rosemary, paprika or preferred spice then bake in an oven.
- Cut boneless white fish fillets into thick fingers, crumb individual pieces and bake in an oven until fish is brown and white in the centre.



12.6.4 One Page Guide – choosing healthy foods when dining out⁷

	<input checked="" type="checkbox"/> Choose this	<input type="checkbox"/> Avoid this
Pizza	<p>Thin based pizza</p> <p>Less cheese and low fat cheese</p> <p>Low fat topping such as mushrooms, onion, capsicum</p> <p>Vegetarian, seafood, or ham and pineapple pizza</p>	<p>Thick bases (deep pan or stuffed crust)</p> <p>Fatty toppings such as salami, bacon and pepperoni</p> <p>Lots of extra cheese</p>
<p>Sandwich bar</p> <p>Bakery</p> <p>Deli</p>	<p>Sandwiches made with high fibre breads such as whole meal or multi-grain, rye or mixed grain</p> <p>Use avocado as a spread</p> <p>Lean ham, lean beef, chicken or turkey with no skin, tuna</p> <p>Lots of salad ingredients; lettuce, tomato, beetroot, cucumber, carrot, sprouts</p>	<p>Butter or margarine</p> <p>Pastries, sausage rolls or quiches</p> <p>Mayonnaise</p> <p>Meat pies</p> <p>Chips</p> <p>Soft drinks</p> <p>Energy drinks</p>
<p>Burgers</p> <p>Kebabs</p>	<p>Grilled meats, chicken or fish burgers</p> <p>Lots of salad toppings such as lettuce, tomato, carrot, onion, pineapple, beetroot</p> <p>Tomato or sweet chilli sauce</p> <p>Thick cut chips or wedges</p>	<p>Battered or fried meats on burgers e.g. chicken schnitzel burger</p> <p>Adding extras such as cheese or bacon</p> <p>Creamy dressings</p> <p>Thin cut/serrated chips</p> <p>Soft drink</p> <p>Upsizing and burgers with multiple patties</p>
<p>Fish and chips</p> <p>Takeaway chicken</p>	<p>Grilled fish or chicken options</p> <p>Skin free chicken</p> <p>Side salad with little or no dressing</p> <p>Tomato sauce</p>	<p>Deep fried fish</p> <p>Chicken with the skin on</p> <p>Stuffing</p> <p>Thin cut/serrated chips</p>

⁷ Located in the Nutrition and Swallowing, 'Other resources' section

	<input checked="" type="checkbox"/> Choose this	<input type="checkbox"/> Avoid this
	Roast potatoes Thick cut chips or wedges	Added salt Gravy
Asian	Vegetable based soups or clear noodle soups Steamed foods; rice, dim sims, fish, dumplings Sushi Stir-fried dishes with lots of vegetables	Deep fried dishes; most things labelled 'crispy', springs rolls, dim sims, sweet and sour pork, prawn toast, money bags Any items battered Fried rice Curries made with coconut milk or cream
Italian	Minestrone or other vegetable based soups Tomato, vegetable or seafood based sauces Plain bread or bruschetta	Cream based sauces Garlic and herb breads

13 Oral Health

13.1 The importance of oral health

Everyone needs dental care every day. Brushing and flossing are crucial activities that maintain a person's overall health. Dental care is just as important to a person's health and daily routine as taking medications and exercise.

A healthy mouth helps people eat well, limit pain and tooth loss and feel good about themselves.

Poor oral care can lead to gum disease and a build-up of bacteria in the mouth.

Foods that contribute to tooth decay include processed sweet foods such as lollies, chocolate, biscuits, cakes, sweetened breakfast cereals, muesli bars, soft drinks and fruit juice.

It is recommended to drink fluoridated tap water after each meal and snack to assist to keep the mouth clean over the day. The fluoride in the water helps to keep bones and teeth strong and healthy.

13.2 Annual review

It is a mandatory requirement that every person living in an accommodation support service has an annual oral health review with their GP or a dentist.

Regular examinations can identify problems before they cause unnecessary pain or become chronic.

The GP or dentist will provide instructions for the best way of supporting a person to maintain their oral health in their **My Oral Health Plan** (refer to the 'Tools and templates' section of the Health Planning Procedures).

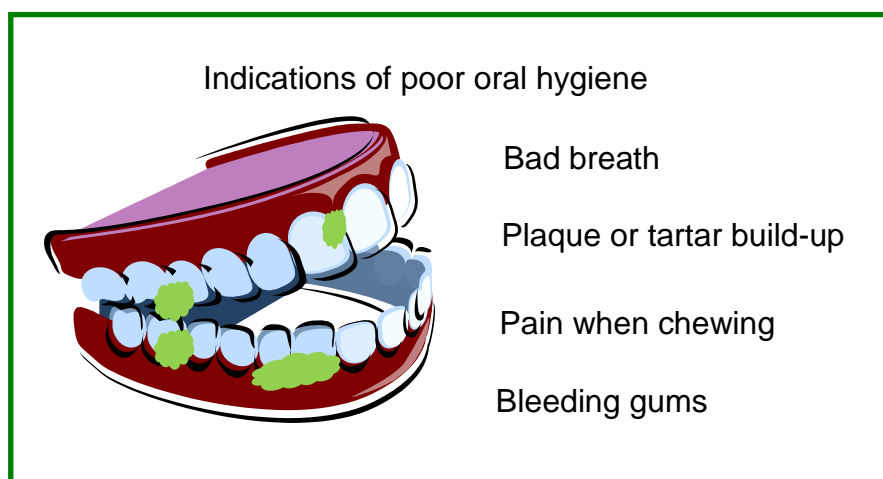
The My Oral Health Plan is part of the person's My Health and Wellbeing Plan and support workers must implement the recommendations daily.

Refer to the Health Planning Procedures for more information about the annual dental review.



13.3 Supporting a person with oral care and health

- Support the person to visit the GP or dentist annually, or more often if needed, and complete the details in the person's My Health and Wellbeing Plan.
- Monitor the person's oral health status daily.
- Update the person's dental support plan to reflect their support needs.
- Floss before brushing.
- Clean teeth with fluoride toothpaste after meals or at least twice a day for 2 minutes.
- Change the toothbrush every 3-4 months or sooner if it looks like a 'shaggy dog'.



Indications of poor oral hygiene

Bad breath

Plaque or tartar build-up

Pain when chewing

Bleeding gums

13.4 Dry mouth condition

Dry mouth is a condition where there is not enough saliva in the mouth or the saliva is thick and sticky.

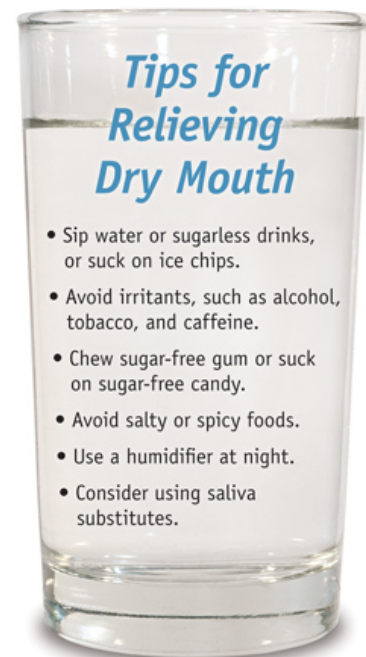
It can make swallowing and talking more difficult, and increases the risk of tooth decay and the build-up of bacteria in the mouth.

The use of oral lubricants, saliva substitutes and dry mouth products can help.

The person's GP, dentist or AHP, such as a speech pathologist, can prescribe products for dry mouth.

Simple strategies:

- Encourage the person to have regular sips of water (if they are able to swallow normal thickness fluids).
- Make sure the person always has a drink while they are eating.
- Grape seed oil (can be purchased from the supermarket) can also help – spray or wipe the mouth with 2-3 drops.
- Add extra gravy/sauce to meals to make them more moist.



13.5 Supporting a person to brush their teeth

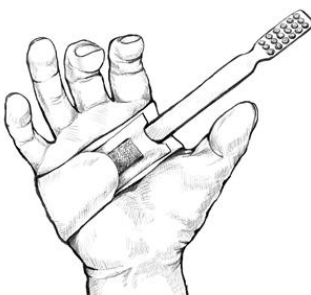
A person may require a support worker to assist them to brush their own teeth.

There are many ways to modify a tooth brush or the person's grip to assist with this process.

Speak to the person's GP and see whether they can prescribe or refer the person to an AHP such as an occupational therapist to prescribe any modifications to best support a person to brush their teeth.

Some examples of modifications an occupational therapist may make are:

13.5.1 Making the toothbrush easier to hold

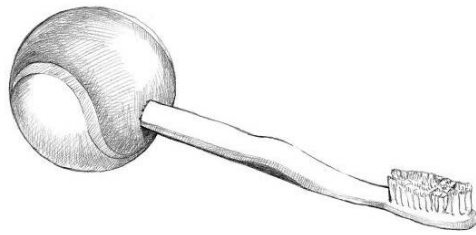


Products such as velcro[®] straps can help a person keep the toothbrush in their hand.

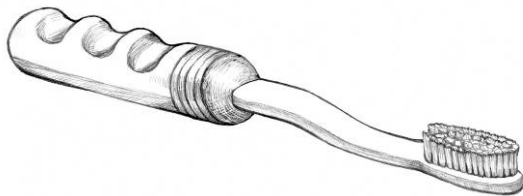
An alternative is to simply use a rubber band (not too tight) with consent to assist the toothbrush to stay attached to their hand.



13.5.2 Making the toothbrush handle bigger



A tennis ball can be cut and added onto the tooth brush to provide an easier grip.



A bike handle can be purchased and added to the toothbrush also to provide a larger surface to grip.

13.5.3 Guide the toothbrush

You can support a person to brush their own teeth by placing your hand gently over their hand and guiding the toothbrush.

An electric toothbrush might make brushing teeth easier as they have a very small brush head and are capable of achieving results in a quicker timeframe saving the person from having your hand in their mouth for an extended period of time.

If these strategies do not assist the person, you may need to brush their teeth for them.

13.6 Brushing a person's teeth for them

You will need to choose an environment that best suits the person you are supporting. It may not necessarily be the bathroom.

Dental care can be frightening to some people because of its invasiveness.

Ensure you communicate each step you are intending to complete with the person before you attempt to complete it. For example, say 'I'm going to place the toothbrush and toothpaste in your mouth now is that OK?' before you place the toothbrush into their mouth.

The person will need to adjust to dental care and learn to trust you whilst you work in and around their mouth. Giving positive feedback to the person whilst you do this will help reinforce the process as a positive experience.

13.6.1 Equipment required

- ✓ The person's consent – if the person does not consent freely, you will need to apply for consent to brush their teeth through the Restricted Practices Authorisation process
- ✓ Very good light – you can not brush their teeth if you can not see inside their mouth.
- ✓ Gloves
- ✓ Toothbrush
- ✓ Fluoride Toothpaste
- ✓ Floss
- ✓ Glass of Water
- ✓ Face washer or towel



13.6.2 Steps for brushing teeth

1. Wash your hands and put on disposable gloves. Sit or stand where you can see all of the surfaces of the teeth.
2. Use a regular or electric toothbrush with soft bristles.
3. Use a pea-size amount of toothpaste which contains fluoride.
4. Make sure the mouth is clear of food after eating, clear food from mouth with a soft toothbrush if you need to.
5. If the person is able to, ask them to rinse their mouth out with water.
6. Ensure the person's teeth are brushed after meals.

13.7 Dentures

Dentures are false teeth used when a person no longer has their own teeth.

Dentures need to be looked after just like real teeth because like real teeth, they help with speech, chewing and swallowing.

Unclean dentures can also lead to bad breath and gum disease. It is important to get dentures replaced every five to ten years.

ALWAYS wear gloves when cleaning dentures to decrease the risk of infection



13.7.1 Maintaining good oral health for people with dentures

- ✓ The gums, tongue, roof of the mouth and any natural teeth also need to be maintained. Gently brush these areas twice every day with a soft-bristled brush.
- ✓ People should have a break from wearing their dentures for about 6-8 hours every day (e.g. this could be overnight).
- ✓ If dentures are kept in at night, make sure the mouth and the dentures are clean before the person goes to sleep.
- ✓ Make sure the person sees their dentist if they are having problems with their dentures.

13.7.2 Maintaining dentures:

- It is best if dentures are cleaned immediately after a meal, but otherwise, at least twice every day.
- If eating out for a meal, dentures can be rinsed under cold tap water until they can be brushed properly.
- The best way to clean dentures is a mix of gentle brushing as well as soaking.
- The best type of brush to use is a small soft nail brush with natural bristles (not nylon ones), or if possible, a denture brush (available from supermarkets and pharmacies).
- Dentures should be cleaned with a mild soap or diluted dishwashing liquid – do NOT use toothpaste as this can cause damage to the surface of the dentures.
- Like denture brushes, special soaking agents can be found at supermarkets and pharmacies.
- Soaking dentures can help clean difficult to reach areas but should be done in addition to brushing.
- Always brush dentures and then rinse under cool water after they have been soaking in a commercial agent .
- At night, leave the dentures to soak in cool clean water.

14 Nutrition for Diabetes

14.1 What is diabetes?

Diabetes causes glucose to build up in the bloodstream because it can not be transported into the body's cells to be used as fuel.

Glucose is a product of the breakdown of carbohydrates in the body and is the main source of the body's energy needs. Many foods contain carbohydrates, including bread, cereal, rice, pasta, potatoes, fruit, milk and yoghurt.

Levels of glucose in the blood are controlled by a hormone called insulin, which is made by the pancreas. Insulin helps remove glucose from the bloodstream into the body's cells for the glucose to be used as fuel.

If glucose remains in the bloodstream, levels become too high and cause health problems.

The pancreas of a person with diabetes, either cannot make insulin, or cannot make enough for the body's needs.



14.1.1 Glycaemic Index

The glycaemic index (GI) ranks carbohydrates according to their effect on blood glucose levels (BGL). The lower the GI, the slower the rise in blood glucose levels will be when the food is consumed. The effect may differ from person to person. It is recommended that people with diabetes have moderate amounts of carbohydrate and include high fibre foods that also have a low GI. Some research has shown that by eating a diet with a lower GI, people with diabetes can reduce their average blood glucose levels. This is important in reducing the risk of developing diabetes-related complications.

14.1.2 Types of diabetes

There are 4 types of diabetes:

1. Pre diabetes
2. Type 1 diabetes
3. Type 2 diabetes
4. Gestational diabetes

14.2 Pre diabetes

Pre diabetes is often overlooked however, it is very important to understand what it is, and what it means if you have it.

Pre diabetes is when a person's blood glucose levels are higher than normal, but not high enough to be diagnosed with diabetes.

If pre diabetes is left unchecked, type 2 diabetes usually develops.

14.3 Type 1 diabetes

Type 1 diabetes is an autoimmune disease that usually begins during childhood, but can occur in adulthood. The immune system abnormally attacks and damages the pancreas which prevents it from producing insulin.



14.4 Type 2 diabetes

About 85-90% of all people with diabetes have type 2. It usually starts in adulthood, but children are more often developing this form of the disease.

It commonly affects people who are overweight and over 45 years of age. In type 2 diabetes the pancreas is unable to produce enough insulin and/or the body is resistant to the insulin, to remove glucose from the bloodstream.

Type 2 diabetes usually develops slowly. If it is diagnosed early, healthy eating, exercise and weight loss (if overweight) can delay or prevent its onset. However, most people need to take tablets to help lower their blood glucose levels, and some will eventually need to take insulin as well.

Refer to the Chronic Disease Guidelines for information about the signs and symptoms, and causes and risks of type 1 and type 2 diabetes

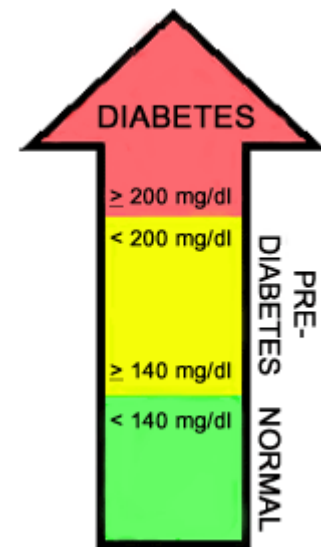


14.5 Gestational diabetes

Gestational diabetes only occurs during pregnancy and affects 3-8% of pregnant women. Gestational diabetes usually goes away after the baby is born, but it increases the person's risk of developing type 2 diabetes later on. In gestational diabetes there is no damage to the pancreas and it produces enough insulin to remove the glucose from the blood, however hormones produced during pregnancy cause the insulin to not work properly.

Women who are at risk:

- Aged 30 years or older
- A family history of type 2 diabetes
- Are overweight
- Are Aboriginal or Torres Strait Islander
- From ethnic groups such as Indian, Chinese, Middle Eastern, Polynesian and Melanesian
- Had gestational diabetes previously



14.6 Diabetes prevention

Type 2 diabetes can be prevented with healthy eating and weight loss / maintenance of a healthy weight and regular physical activity.

A person who eats healthy food and exercises, is better able to maintain blood sugar and cholesterol levels in the healthy range.

14.6.1 Tips for healthy eating to prevent diabetes

- ✓ Eat a healthy balanced diet
- ✓ Support people to choose foods from all of the five food groups as recommended in the Australian Guide for Healthy Eating
- ✓ Manage portion sizes
- ✓ Watch portion sizes and make sure $\frac{1}{2}$ - $\frac{3}{4}$ of the plate is vegetables.
- ✓ Do not skip meals
- ✓ People are sometimes too busy to have breakfast, but skipping meals can make a person want to eat a lot more at their next meal. Make sure they have regular meals throughout the day
- ✓ Eat more fibre
- ✓ Fibre helps control weight by keeping a person fuller for longer. Support them to choose wholegrain bread and cereals, fruit and vegetables
- ✓ Watch fat intake

- ✓ Try to limit saturated and transfat in full fat dairy products, meat and butter. These can raise cholesterol levels
- ✓ Try to choose monounsaturated and polyunsaturated fats as in vegetable/seed oils, nuts and fish on the person's behalf. These help to lower blood sugar and cholesterol. (Be careful though - having too much good fat can also cause a person to gain weight)
- ✓ Remember all fats are high in energy whether they are saturated or unsaturated!



14.7 Sample meal plan for a person with diabetes

A person who has diabetes should have a diet prescribed for them by their GP or an AHP. Support workers must follow the person's Mealtime Management Plan when providing meals.

The *Easy Step by Step Cookbook* has lots of healthy meal ideas.

Make sure to include carbohydrate foods in each meal or snack to help manage blood glucose levels⁸.

Breakfast options
One cup of high fibre cereal with low fat milk and a piece of fruit
Two slices of toast. Choose wholegrain, wholemeal or high fibre white with peanut butter, jam, Vegemite TM , baked beans, or grilled tomato
Drink options: Water, tea, coffee.
Morning tea snack options
Fresh or canned fruit in natural juice or water
High fibre crackers
Lunch options

⁸ <http://www.trafficlightguide.com.au/site/index.php>

One sandwich made with bread, or one roll, or one wrap preferably wholegrain or wholemeal with thinly spread margarine or avocado with 60g of lean meat (2 slices), skinless poultry or seafood (e.g. tuna or salmon)
One sandwich made with bread, or one roll, or one wrap preferably wholegrain or wholemeal with thinly spread margarine or avocado with two eggs
One sandwich made with bread, or one roll, or one wrap preferably wholegrain or wholemeal with thinly spread margarine or avocado with 40g (2 thin slices) of fat reduced cheese
One sandwich made with bread, or one roll, or one wrap preferably wholegrain or wholemeal with thinly spread margarine or avocado with ½ cup of legumes
One piece of fruit
Lots of salad
Drink options: water, tea or coffee
Afternoon tea snacks options
1 glass of low fat milk
Wholegrain bread and spread
Main meal options
1 cup of cooked rice or pasta or one medium potato with 100g of lean meat
1 cup of cooked rice or pasta or one medium potato with skinless poultry or seafood
1 cup of cooked rice or pasta or one medium potato with half a cup of legumes
1 piece of fruit or one small tub of yoghurt or custard
Drink options: water, tea or coffee
Dessert snack options
Low fat yoghurt
Fruit bread

14.8 Managing type 1 and type 2 diabetes

It is important that the person's blood glucose levels are monitored at least daily.

Blood glucose levels indicate how a person's body is responding to the insulin or tablets, eating, and exercise.

It is important to know how many serves of carbohydrates the person can have at each meal. A dietitian can help with this.

One serve of carbohydrates is 15g, and you can use exchange lists to help support the person to choose their carbohydrates.



The GI of the carbohydrate helps in the management of diabetes. High GI foods raise glucose levels quickly for a short period of time.

Low GI carbohydrates slowly release glucose into the blood which helps in controlling a person's glucose levels. They are also released over a longer period of time, so the person doesn't become hungry again too quickly. Encourage the person to regularly eat low GI carbohydrates throughout the day; aim for 1 low GI food per meal.

For those with type 1 diabetes, high GI foods are useful for treating hypoglycaemia, but follow with a low GI food so that they sustain a good blood sugar level.

Low GI Foods	High GI Foods
Wholegrain bread and cereals	Wholemeal and white bread
Cereals such as All-Bran [®] , Guardian [®] , rolled oats and Sustain [®]	Cereals such as Coco Pops [®] , Cornflakes [®] and Rice Bubbles [®]
Milk and dairy products	Soft drinks
Most fruit	Lychees and watermelon
Wholegrain pasta	Rice cakes and crackers
Vegetables such as corn and butternut pumpkin	Lollies

14.9 Hypoglycaemia

Hypoglycaemia (also called a 'hypo', low blood glucose or insulin reaction) is when a person's blood glucose level (BGL) has dropped from the ideal BGL which is between 3.5 and 8.0mmol/L to an abnormally low level of less than 3.5mmol/L.

If a person's blood glucose level is not well controlled, they may experience hypoglycaemic symptoms even if their BGL is over 3.5 or 4 mmol/L.

While hypoglycaemia can be experienced by people taking certain tablets for their diabetes, it is more common in people who use insulin. It is generally not a problem for people with type 2 diabetes who can manage their diabetes through a healthy eating plan and physical activity alone, however it is possible.

It is important to treat a 'hypo' immediately to stop your blood glucose level from dropping lower.

14.9.1 Causes of hypoglycaemia

- Inadequate or delayed carbohydrate intake
- Too much insulin or too many diabetes tablets
- More exercise or physical activity than usual
- Vomiting
- Alcohol without enough carbohydrate

When supporting a person with limited communication, it is critical that you record the signs the person may show when suffering from hypoglycaemia – 'Hypo' in their Communication Profile, so all support workers can provide assistance.

14.10 Good health and diabetes

14.10.1 Exercise

Exercise is essential for diabetes prevention and wellbeing.

For a person with diabetes, exercise helps:

- insulin to work better, which will improve the person's diabetes management
- control their weight
- lower their blood pressure
- reduce the risk of heart disease
- reduce stress.



14.10.2 Sugar

Sugar does not cause diabetes and small amounts of added sugar in moderation is acceptable as part of a healthy diet for people with diabetes.

Ensure added sugar is consumed in moderation for example:

- one to two times a day e.g. one teaspoon of sugar in coffee or tea
- honey on a slice of toast
- a slice of cake
- a bowl of ice-cream or a bowl of custard and fruit.

14.10.3 Smoking and alcohol

Smoking and alcohol are big factors in the prevention of diabetes.

They both can increase blood pressure, and alcohol can increase both weight and blood fat levels.

Alcohol can disguise the symptoms of hypoglycaemia therefore it is recommended to eat carbohydrates before and at the same time as drinking alcohol.

If appropriate, ensure the person drinks no more than 2 standard drinks of alcohol per day, and ensure that they have at least 2 alcohol free days per week.

Smoking can also increase the complications associated with diabetes.

For more information about smoking and alcohol refer to the Health Promotion Guidelines.

14.11 What happens if diabetes is not managed?

High blood glucose levels maintained for a long period can cause serious health consequences to a person's body.

However, managing glucose levels right now can help minimise the risk of these developing in the future:

- heart attack
- stroke
- kidney disease
- eye problems
- circulatory problems.

For more information on diabetes, refer to the Chronic Disease Guidelines and visit <https://www.diabetesaustralia.com.au/about-diabetes/>



15 Nutrition for osteoporosis

Osteoporosis is a disease that causes bones to lose their density and strength by breaking down and becoming riddled with little holes (porous).

As a result, the person's bones become fragile and can break easily for example, by a simple fall in the house.

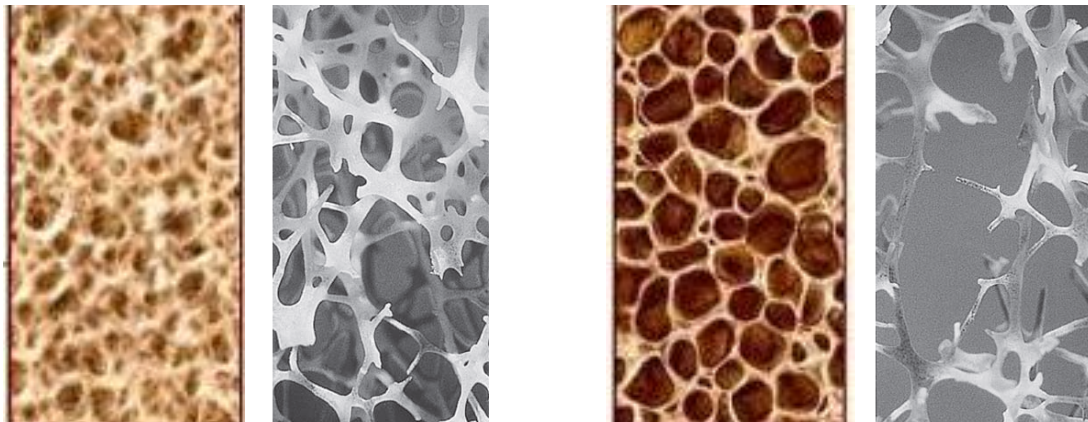
15.1 What causes osteoporosis?

A person's bones are at their peak strength when they are aged between 20 – 30 years old. Bones need 2 key nutrients – calcium and vitamin D.

When a person has enough calcium and vitamin D, their bones are healthy and strong. If the person is not getting enough calcium and vitamin D, their bone mineral density lowers and bones are no longer able to be rebuilt.

Calcium is readily available in food. Vitamin D is not present naturally in many foods but is provided through exposure to sunlight. Vitamin D can be added to food as a supplement.

Good nutrition and exercise during childhood and adolescence also determine bone strength.



Healthy bone

Osteoporotic bone

There are many risk factors that lead to osteoporosis

15.2 Osteoporosis risk factors that can be changed

15.2.1 Healthy eating

A healthy and well balanced diet is essential for strong bones.

Calcium from a person's diet combines with protein to form their bones. Vitamin D is needed to help increase the absorption of calcium.

Calcium replacement helps reduce bone breakdown in post-menopausal women.

While calcium can be found in common foods people eat such as milk and dairy, vitamin D is mostly absorbed from sunlight.

Normal sun exposure during day to day activities is enough to meet a person's needs.

Refer to the Chronic Disease Guidelines for information about the symptoms and risks associated with osteoporosis.

15.3 How to prevent osteoporosis

Osteoporosis is largely a preventable disease if dietary and lifestyle changes can be made.

15.3.1 Diet

One of the key factors in the prevention of osteoporosis is the person's diet, especially calcium and vitamin D intake.

If the person is supported to eat lots of foods that are rich in calcium and get daily sun exposure, they will have the best protection they can have.

Where the person has skin sensitivity to the sun or is at high risk of skin cancer and/or dresses in a way that prevents the sun reaching their skin, refer to the GP for advice about the best way the person can absorb vitamin D. The GP may prescribe a supplement.



Even though it is important in childhood to have strong bones, remember that having enough calcium and vitamin D in adulthood delays bone breakdown.

A balanced diet helps to maintain a healthy body weight; being underweight can greatly increase the risk of osteoporosis.

15.3.2 Exercise

Weight-bearing exercise is the important factor in preventing osteoporosis.

The best time to build healthy and strong bones is in childhood however, exercise in adulthood helps bones to stay as healthy as they can for a longer time.

Limiting other risk factors such as smoking and excessive alcohol consumption can help prevent the development of osteoporosis.

Calcium and vitamin D supplements may be prescribed by the person's GP for the treatment and management of osteoporosis.



15.4 Tips for increasing calcium intake

Include at least 3 serves (4 if female over 50 or male over 70) of dairy foods daily with or without bony fish.

1 serve of dairy

250ml milk

100ml evaporated milk

150ml Anlene®

170ml Calcium Start® or Physical®

3 tbs skim milk powder

200g tub yoghurt

40g cheese

100g salmon with bones

100g sardines

If someone is on a low fat or low saturated fat diet, low fat dairy products are good choices to increase their calcium intake



Ways to increase calcium intake:

- Add low fat yoghurt to cereal or fruit at breakfast
- Make a low fat milk or yoghurt smoothie
- Add extra skim milk powder to soups, milk drinks, custard, porridge, and milk
- Blend cottage cheese with salmon to make a dip or spread for sandwiches, crackers, and veggie sticks
- Make salmon sandwiches or sardines on toast for lunch or a light meal
- Add evaporated low fat milk with a coconut flavour to curries/stews
- Add evaporated low fat milk to fruit instead of cream
- Add cottage or ricotta cheese blended with yoghurt to potatoes instead of sour cream
- Make white sauce/creamy pasta sauces out of evaporated light milk
- Add tofu set with calcium citrate to vegetable dishes
- Add cheese to meals.

Daily calcium requirements

Adult men: **1000mg** aged 19-70 and **1300mg** > 70 years

Adult women: **1000mg** aged 19-50 and **1300mg** >50 years

Girls and boys aged 9-11 years: **1000mg**

Girls and boys aged 12-18 years: **1300mg**

Children aged 1-3 years: **500mg**

Children aged 4-8 years: **700mg**

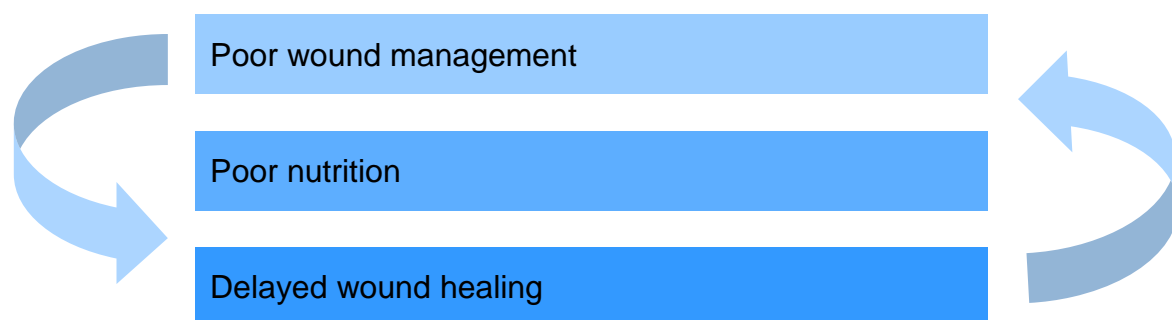
NOTE: 200-300mg of calcium is obtained from non calcium rich foods consumed in the rest of the diet.

16 Nutrition for wounds

Nutrition plays an essential role in wound healing and wound care practices, and nutritional support should be considered as a fundamental part of wound management.

Poor nutrition before or during the healing process may delay healing, making the wound more prone to breakdown. Neglecting the nutritional health of a person with a wound can compromise wound management and healing.

Improving nutrition helps the body to heal wounds more quickly. Wound healing is a complex process which, in simple terms, is the body's process of replacing injured tissue with healthy tissue. This process demands an increased intake of energy and nutrients particularly protein and calories.



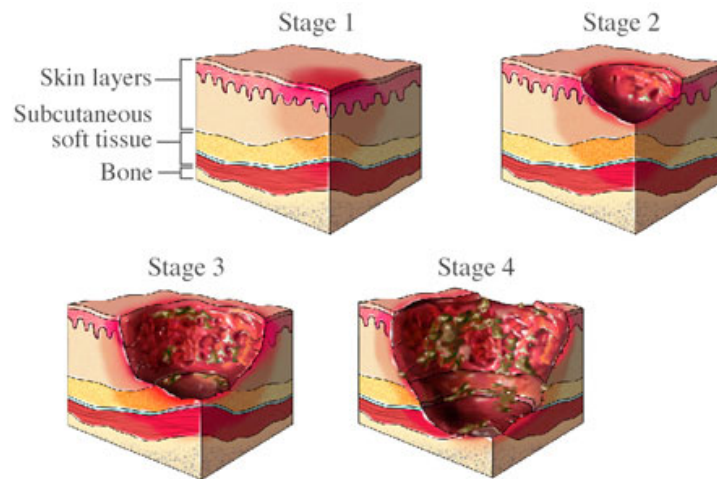
16.1 Chronic wounds

Chronic wounds can occur in any person but more frequently in people who are immobile for long periods of time, the elderly and chronically ill.

Chronic wounds can be defined as wounds that take 4-6 weeks to heal.

16.1.1 Examples of wounds that may become chronic

Venous leg ulcers	Wounds in people with diabetes
Ulcers on legs and feet	Extended burns
Pressure ulcers	Amputation wounds



16.1.2 Pre-disposing factors for chronic wounds

Diabetes is a predisposing factor for wounds (ulcers on legs and feet).

People who are immobile for long periods of time are at risk of developing pressure ulcers.

Wounds at risk of delayed healing can occur in people receiving cancer treatment.

16.1.3 Nutrition for chronic wounds

Nutrition for chronic wounds should be assessed for each individual.

Typically, pressure ulcers, especially larger or multiple ulcers, and ulcers on legs of people with diabetes, require a high intake of nutrients for healing.

These wounds must be given priority to ensure that adequate dietary, nutritional support and supplementation are provided.

Infected wounds require increased nutrients as they cause more tissue damage and deep ulcers.

Protein loss from wound exudate (weeping) must be monitored, and frequent replacement of dressings is an indication that protein is being lost from the body at a high rate. A wound specialist should be involved at this stage.

In these cases, protein replacement will need to be considered for the person.

Frequent dressing changes

=

Protein Loss

=

Reduced nutritional status

16.2 Nutrition support for wound healing

Ensuring that a person has an adequate nutritional intake is best practice in wound management.

Support staff should ensure that the person is in the best nutritional state for wound healing.

This can be achieved by providing the person with adequate calories and nutrients, preventing protein-energy malnutrition, and promoting wound healing.

Holistic wound care must include both nutritional support and supplementation where necessary, according to the person's needs.

There are a number of nutrients that play an important role in wound healing.

The following is a summary of important wound healing nutrients:

Protein - Protein is essential for the maintenance and repair of body tissue.

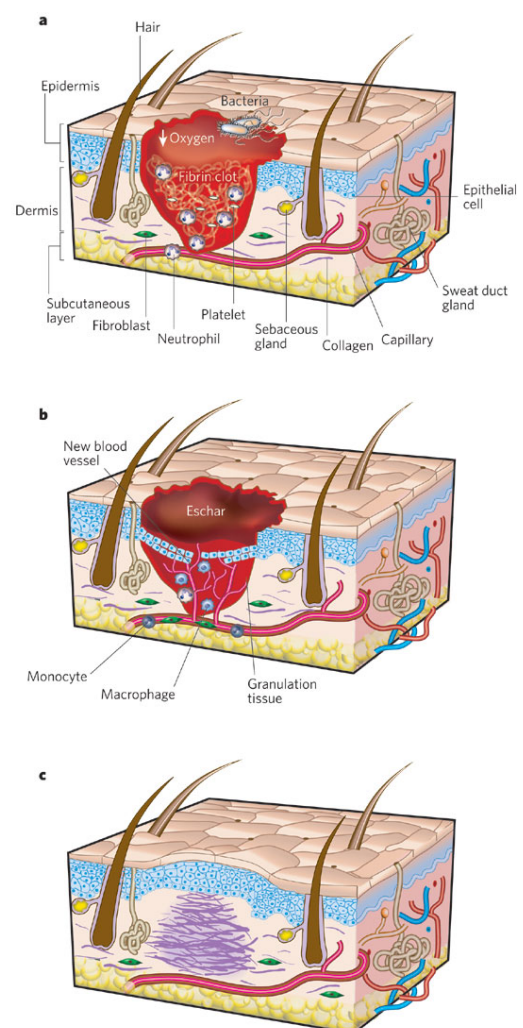
Amino Acids - L-Arginine is an amino acid that has several properties that enhances a number of the pathways involved in wound healing.

Energy - The main sources of energy for the human body and for wound healing are carbohydrates and fats.

Fats - Fats, including mono- and polyunsaturated fats, provide fuel for wound healing.

Carbohydrates - Carbohydrate is a major source of calories for use by the body.

A person with a chronic wound should be assessed by a wound care specialist and have a diet prescribed by a dietitian that is appropriate for wound healing.



16.2.1 Important antioxidants for wound healing

Vitamin C - Vitamin C plays an important role in collagen creation and formation of new blood vessels.

Vitamin A - Vitamin A increases the inflammatory response in wounds.

Vitamin E - It is possible that vitamin E can reduce injury to the wound by controlling excessive free radicals.

16.2.2 Important minerals for wound healing

Zinc - Zinc is a trace element, present in small amounts in the body, which has a well established role in wound healing.

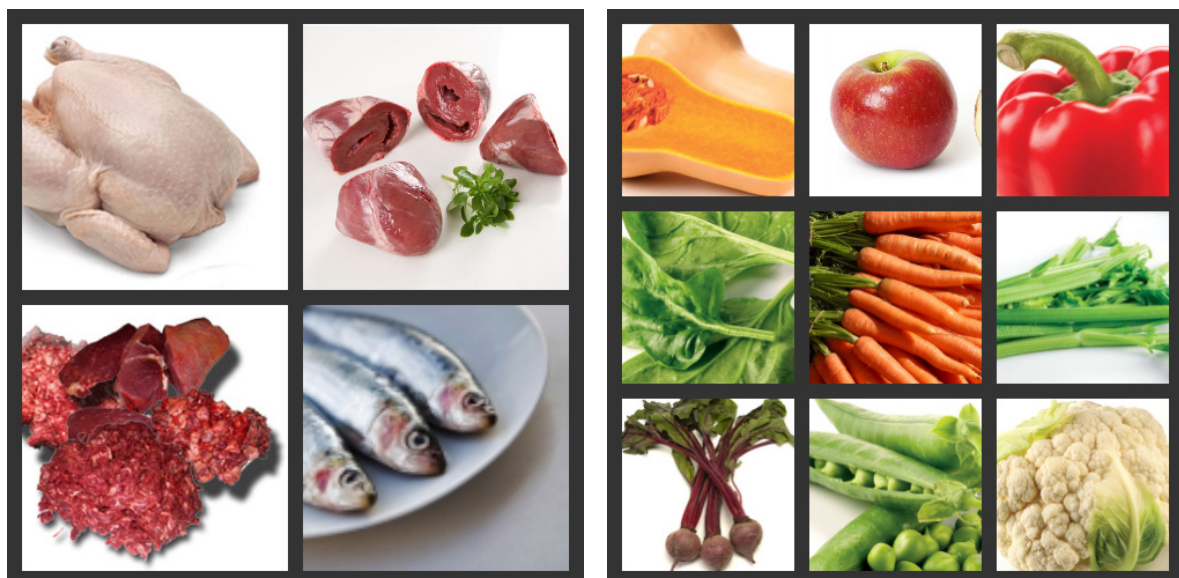
Iron - Iron is part of the system that provides oxygen to the site of the wound, therefore iron (haemoglobin) deficiency can impair healing.

16.2.3 Hydration for wound healing

Hydration is important in wound healing as dehydrated skin is less elastic, more fragile and more susceptible to breakdown.

Dehydration will also reduce efficiency of blood circulation, which impairs the supply of oxygen and nutrients to the wound.

One of the main risk factors for dehydration is poor oral intake. Dehydration is one of the most common problems affecting good nutrition.



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18 Policy and Practice Unit contact details

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