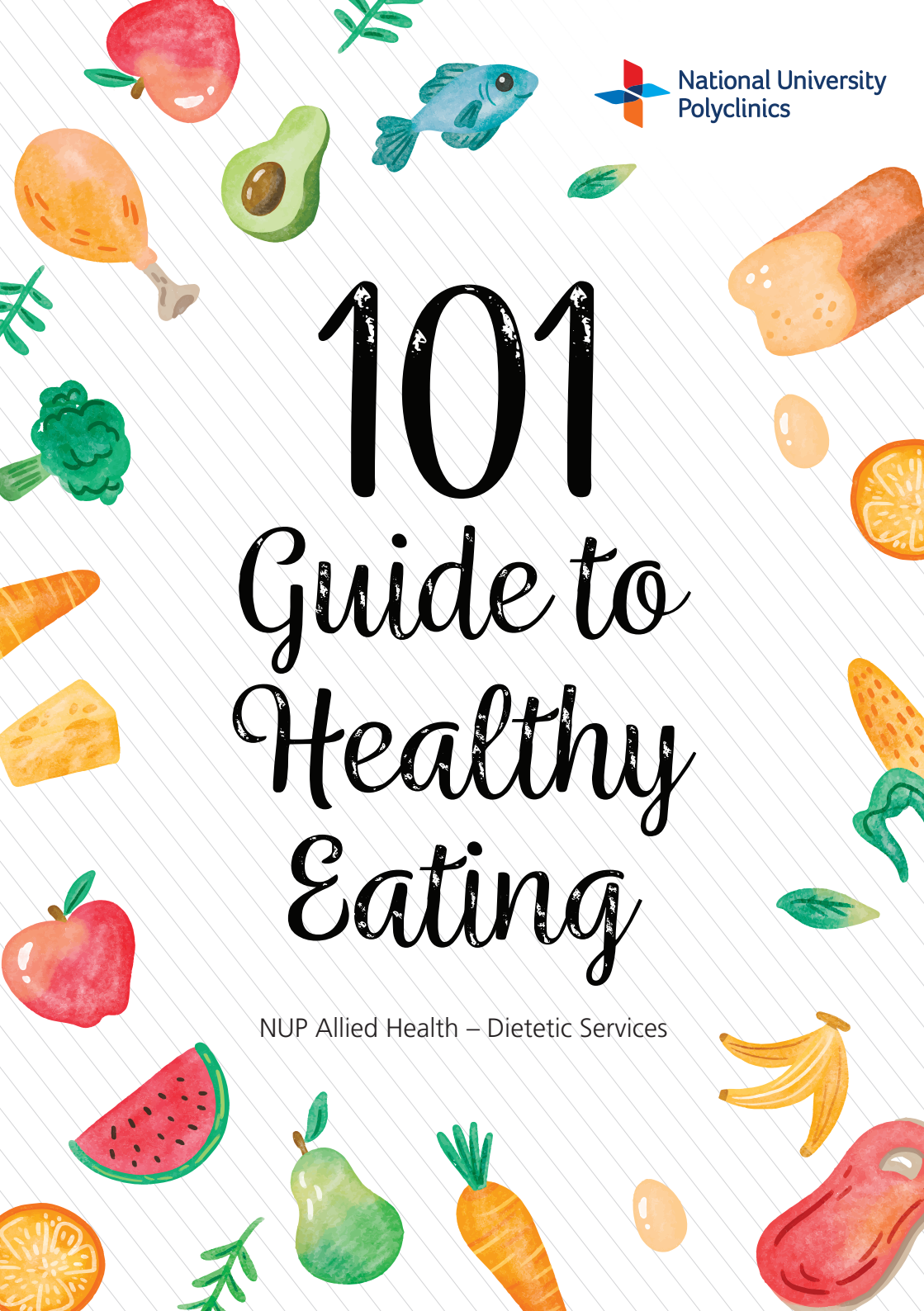




National University  
Polyclinics

# 101 Guide to Healthy Eating

NUP Allied Health – Dietetic Services



## My Healthy Plate

is Health Promotion Board's (HPB) nutrition recommendation for all Singaporeans. You can use My Healthy Plate to help you eat healthily and be active. My Healthy Plate shows what a healthy meal looks like and the amount of food that should be included in every meal.

*Please refer to the recommended number of servings and serving size chart (page 3 and 4) to find out how much you should eat.*



Source: Health Promotion Board (HPB)

## Fill half your plate with fruit and vegetables

Fruit and vegetables are high in fibre, vitamins and minerals. They are naturally low in fat too. Have a variety of fruit and vegetables as they contain different vitamins and minerals to help keep you healthy and prevent diseases.



## Fill a quarter of your plate with wholegrains



Carbohydrates such as rice, noodles, bread and cereals are our bodies' main source of energy. Choose wholegrain products such as wholemeal bread, brown rice and oats as they contain more fibre, vitamins and minerals.

## Fill a quarter of your plate with meat and others

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Including protein at each meal is important and needed to build and maintain muscles, as well as support your immune function. Foods high in protein include lean meat, poultry without skin, fish, beans and bean products. Some foods high in protein (e.g. low fat milk, low fat cheese, low fat yoghurt, and high calcium soy milk) are also high in calcium and should be included in the diet every day.



## Use healthier oils

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Use healthier oils such as canola, olive, soybean, sunflower and peanut oils. Healthier oils contain mono- and poly-unsaturated fats. These healthier fats may help to lower your risk of getting heart disease but they should be used in moderation.



## Choose water

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Drink water instead of beverages that contain sugar. Having too many sugar sweetened beverages may cause you to put on weight.



## Eat less salt

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Eating too much salt or sodium may lead to high blood pressure. The average healthy adult needs only 2000mg of sodium a day (less than one teaspoon (5g) of salt). Cut down salt and sauces used in cooking and at the table. Avoid processed foods such as canned products, salt-preserved, cured and smoked foods. Choose foods with the Healthier Choice Symbol as they are lower in sodium.



Lower in Sodium

## Drink less alcohol



Drinking too much alcohol is harmful to your body. For healthy adult Singaporeans:

- Men should not drink more than two standard drinks a day.
- Women should not drink more than one standard drink a day.

A standard drink is:

- One can (330ml) of regular beer with 5% alcohol content.
- Half glass (100ml) of wine with 15% alcohol content.
- A shot (30ml) of spirits with 40% alcohol content.

## Be active

Being physically active is an important part of a healthy lifestyle that helps in maintaining good health and achieving a healthy weight. Adults should aim for 150 minutes of physical activity each week.



## Recommended number of servings per day

Food group	Recommended number of servings per day						
	1-2 years	3-6 years	7-12 years	13-18 years	19-50 years	51 years & above	Pregnant & lactating women
<b>Brown rice &amp; wholemeal bread</b>	2-3	3-4	5-6	6-7	5-7	4-6	6-7
<b>Fruit</b>	½-1	1	2	2	2	2	2
<b>Vegetables</b>	½	1	2	2	2	2	3
<b>Meat &amp; Others</b> of which	2	2	3	3	3	3	3 ½
<b>Dairy Foods or Calcium-Rich Foods</b>	1 ½	1	1	1	½	1	1

Table 1: Recommended numbers of servings per day



# What is an example of one serving?








Food group	Examples of one serving
<b>Brown rice &amp; wholemeal bread</b> 	½ bowl* of rice (100g) • ½ bowl* of noodles or beehoon (100g) • 2 slices of wholemeal bread (60g) • 4 pieces of wholemeal crackers (40g) • 2 wholemeal chapatis (60g) • 1½ cups** wholegrain breakfast cereal (40g) • ⅔ bowl* of uncooked oatmeal (50g)
<b>Fruit</b> 	1 small apple, orange, pear or mango (130g) • 1 wedge of papaya, watermelon or pineapple (130g) • 10 grapes or longans (50g) • 1 medium banana (80g) • ¼ cup** of dried fruit (40g)
<b>Vegetables</b> 	¼ round plate+ of cooked vegetables • 150g raw leafy vegetables • 100g raw non-leafy vegetables • ¾ mug** cooked leafy vegetables (100g) • ¾ mug** cooked non-leafy vegetables (100g)
<b>Meat and others</b> 	1 palm-size amount of meat, fish or poultry (90g) • 5 medium prawns (90g) • 3 whole eggs (150g) • 2 glasses** of milk (500ml) • 2 small blocks soft beancurd (170g) • ¾ mug** of cooked pulses (peas, beans, lentils) (120g)

Table 2: Example of one serving

\*1 bowl = 1 rice bowl, \*\*1 cup/ glass/ mug = 250ml, +10 inch plate

## Healthy Eating Tips

- Eat deep-fried food only **one to two times a week**. 
- When cooking at home, **use less oil**. Use healthier cooking methods such as steaming, boiling, grilling and pressure cooking.
- When eating out, **choose soupy, steamed, stir-fried, or grilled foods**.
- **Do not ask for extra gravy** and leave the soup behind when eating out.
- Choose water or beverages **with less or no sugar**. 
- Have **at least 6-8 glasses** of water per day.
- **Include fruit and vegetables** at each meal.
- **Eat regular meals**. Do not skip any meals as skipping meals may cause you to overeat later on.
- **Start your day with breakfast** (choose high fibre foods such as wholegrains). 

### Always remember to

- ✓ Eat a **variety** of food
- ✓ Have a **balanced** diet
- ✓ Eat all food in **moderation**

# DIET FOR HEALTHY HEART

Heart disease is one of the top causes of death in Singapore. Healthy food choices and an active lifestyle can help improve the health of your heart. Follow these tips for a healthier heart.



## Eat more fruit and vegetables



- Fruit and vegetables are rich in vitamins, minerals and antioxidants that can reduce your risk of developing heart diseases.
- Fill half of your plate with colourful fruit and vegetables at every meal.
- Add fresh or frozen vegetables to your soup and stews.
- Have fruit as your snack or dessert.

## Eat wholegrains



- Wholegrains are good sources of fibre and other nutrients that are important for your heart.
- Choose wholemeal bread, high fibre cereal and oats for breakfast.
- Choose brown rice, brown rice vermicelli and whole wheat pasta as your staple foods.

*Please refer to page 13 for more information on wholegrains.*

## Eat less salt



- Eating too much salt can cause high blood pressure, which increases your risk of heart disease.
- Use less salt and sauces in cooking. Improve the flavour of your food with herbs and spices.
- Choose fresh food instead of salted or processed food.

*Please refer to page 12 for more information on sodium.*

## Replace unhealthy fats with good fats

- Saturated fat, unsaturated fat and trans fat are 3 different types of fat found in our food that can affect our blood cholesterol levels.
- Replace saturated fat and trans fat with unsaturated fats such as canola oil, sunflower oil, nuts, seeds, and deep-sea fish as they can protect our heart.

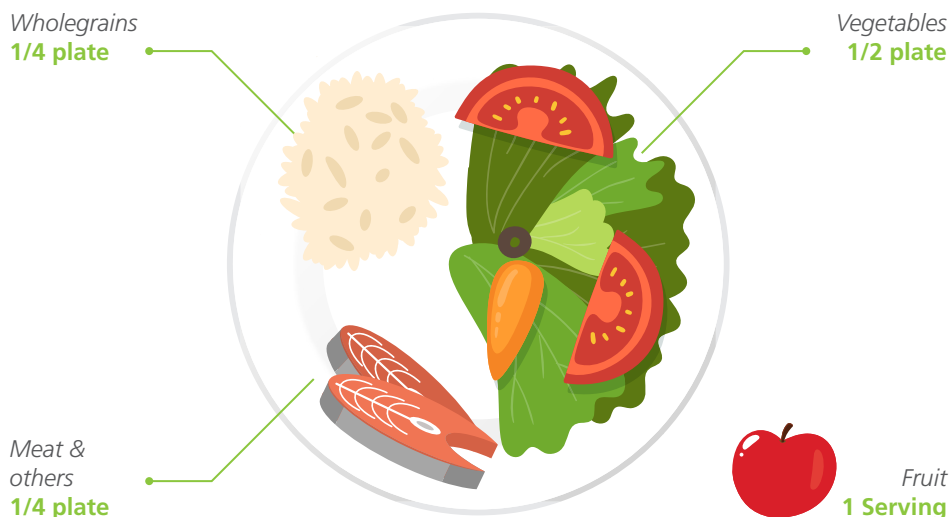


*Please refer to page 8 for more information on fats.*

# DIET FOR MAINTAINING HEALTHY BLOOD SUGAR LEVELS

The number of people with diabetes or pre-diabetes is increasing in Singapore. Having a healthy diet together with regular physical activity can help you reduce your risk of getting diabetes. It can also help those with diabetes improve their blood sugar levels.

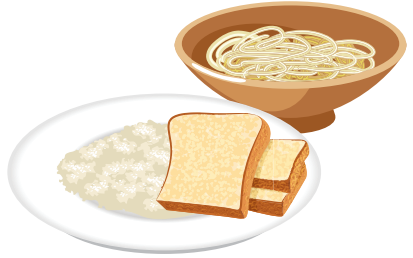
The way to control your blood sugar levels is to keep a healthy, balanced diet and eat regular meals every day. Use the concept of **My Healthy Plate** as a guide to help you have a healthy balanced diet.



Reference: Health Hub, How much do you know about diabetes, <https://www.healthhub.sg/a-z/ diseases-and-conditions/626/diabetes>, last accessed on 4/12/2018.

## Here's how you can eat healthily:

**Carbohydrates** – Include food such as rice, noodles, bread, oats, chapatti, thosai and starchy vegetables like potatoes, sweet potato, corn and yam. All fruits, legumes, beans, milk and yoghurt contain carbohydrates too.



- Carbohydrates are our bodies' main source of energy.
- Eating too much carbohydrate foods can lead to high blood sugar levels, so it is important to control the amount you have at every meal.
- Choose wholegrain products such as wholemeal bread, brown rice, wholemeal pasta, brown rice vermicelli and oats as they have more fibre, vitamins and minerals.

**Fat** – all fats are high in energy (calories). Eating too much fat may lead to weight gain and high blood cholesterol levels. It can also affect your blood sugar levels.

*Please refer to page 8 for tips to limit fat intake.*



**Fibre** – foods that are high in fibre are digested slower. This keeps you full for a longer time and helps to control your blood sugar levels and lower blood cholesterol levels.

Include these foods in your diet:

- Fruit and vegetables. Remember to have two servings of fruit and two servings of vegetables every day.



*Please refer to Table 2 (page 4) for recommendation of one serving.*

- Wholegrains products such as wholegrain bread, oats, brown rice, wholegrain noodles, brown rice vermicelli and wholemeal pasta.

# REDUCE FATS

Fat is an important nutrient for a healthy body. It provides energy and helps your body absorb, transport and store fat-soluble vitamins A, D, E and K.

However, the types of fat you eat can affect your blood cholesterol levels. Saturated fat raises the level of LDL-cholesterol (“bad” cholesterol) in the body, which increases the risk of heart disease and stroke. Trans fat raises LDL-cholesterol (“bad” cholesterol) and lowers HDL-cholesterol (“good” cholesterol) in the body. Replace them with unsaturated fat instead.

All fats are high in calories and can cause you to put on weight. Limit the amount of fat you eat with the following tips below.

## Reduce fat with the 4Rs

### Replace

- ▼ Fried noodles with soup noodles
- ▼ Flavoured rice with plain rice
- ▼ Coconut milk/full cream milk with low fat milk
- ▼ Butter with trans-fat free margarine
- ▼ Mayonnaise with olive oil/lemon juice as salad dressing
- ▼ Processed meats with fresh lean meat



### Reduce

- ▼ Deep fried food/snacks and creamer in beverages
- ▼ Oil use in cooking
- ▼ Spread on bread



### Remove

- ▼ Skin from poultry (e.g. chicken and duck) and visible fat (fat that can be seen)

### Request

- ▼ For less oil and leave gravy behind
- ▼ For lower fat options

## When grocery shopping

Choose products with the Healthier Choice Symbol (HCS) as they are lower in total fat and saturated fat compared to other products in similar categories. These products also have no trans fat or negligible amounts of it per serving of food. However, products with HCS still contain fat and calories and should be eaten in moderation.



Lower in Saturated Fat



Trans Fat Free

**Myth:** Butter is better than margarine.

**Fact:** False. Butter is high in saturated fat while hard margarine is high in trans fat. Both can increase blood cholesterol level. Choose soft margarine with lesser trans fat and no/minimal saturated fat, and use only a thin spread.



## GO EASY ON SUGAR

Sugar provides 'empty calories' (calories with no nutritional value). Having too many beverages and foods high in added sugar can lead to weight gain. It also 'spoils' your appetite for nutritious foods. The National Nutrition Survey 2018 found that the amount of refined sugars Singaporeans are taking remains high at 60g (12 teaspoons sugar) per day.



### Recommendations:

Added sugar should be less than 10% energy requirement, or no more than 8-11 teaspoons per day.

A further reduction to below 5% or roughly 25 grams (6 teaspoons) per day would provide additional health benefits.

### Tips to reduce sugar intake:

- Choose plain water instead of sweetened drinks.
- Avoid adding sugar to food and drinks.
- Choose food and drinks labelled:
  - » No added sugar
  - » Less or reduced sugar
  - » Low in sugar
  - » Sugar free
- Read food labels and compare sugar content in products.
- Use a thin spread of jam or marmalade only.
- Have desserts only as treats and share them with family or friends.



References: Health Promotion Board (HPB), World Health Organization (WHO, 2015).

## Read the ingredient label to find out if there is sugar in the product

Sugar can be listed in the ingredient list as cane sugar, brown or raw sugar, icing sugar, sucrose, glucose, dextrose, maltose, fructose, molasses, corn syrup or honey.

Ingredients are listed in descending order by weight. This means that the ingredient with the highest content is listed first. E.g. If sugar is listed as the first ingredient, this means that sugar is the highest content in the product followed by the rest of the ingredients.

Nutrition Facts			
Serving Size		Servings Per Container	
Amount Per Serving			
Calories	Calories from Fat		
	%Daily Value*		
<b>Total Fat</b>	g		%
<b>Saturated Fat</b>	g		%
<b>Cholesterol</b>	g		%
<b>Sodium</b>	g		%
<b>Total Carbohydrate</b>	g		%
<b>Dietary Fiber</b>	g		%
<b>Sugar</b>	g		%
<b>Protein</b>	g		%
Vitamin A	%	• Vitamin C	%
Calcium	%	• Iron	%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

## When grocery shopping

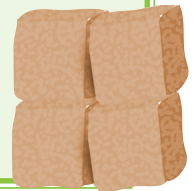
Choose products with the Healthier Choice Symbol (HCS) as they are lower in sugar compared to other products in similar categories.



Lower in Sugar

**Myth:** Brown sugar is better than white sugar

**Fact:** There is virtually no nutritional difference between brown and white sugar. In fact, brown sugar is actually white granulated sugar with added molasses. Brown sugar does contain extremely small amounts of minerals, but unless you eat a gigantic portion of brown sugar every day, the mineral content difference between brown sugar and white sugar is not much.





## SODIUM

Sodium is a mineral that is found naturally in many foods. Salt (sodium chloride) contains 40% sodium. According to National Nutrition Survey 2018, 90% of Singaporeans exceed the amount of salt they are allowed to take per day.

Eating too much salt or sodium may lead to high blood pressure and linked to other health problems such as kidney problems, stroke, osteoporosis (loss of bone mass).

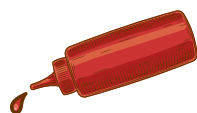
A healthy adult needs **no more than 2,000mg of sodium**  
OR **less than one teaspoon (5g) of salt** a day.

Reducing the amount of salt or sodium in your diet can help lower your blood pressure.

### Tips to reduce salt/sodium intake

#### When eating out:

- Leave the soup behind
- Ask for less gravy and sauce
- Ask for fresh chilli instead of sambal chilli or other sauces
- Eat less processed foods and fast foods



#### When eating at home:

- Use natural seasonings such as lime or lemon juice, fresh chili, onion, garlic, ginger, herbs (e.g. parsley, coriander, basil) and spices (e.g. pepper, cinnamon, cumin, curry powder).
- Reduce salt and sauces used in cooking and at the table.



#### When grocery shopping:

- Buy fresh food instead of processed or preserved foods such as ham, sausage, canned vegetables.
- Choose food products or items with the Healthier Choice Symbol.



Lower in Sodium

# WHOLEGRAINS

A wholegrain is a grain that contains all three parts of a grain: bran, germ and endosperm. In refined grains, the bran and germ are moved, leaving only the starchy endosperm. Wholegrains contain more fibre, vitamins, minerals and phytochemicals (beneficial plant substances) that are important for good health.

Wholesome benefits of wholegrains:

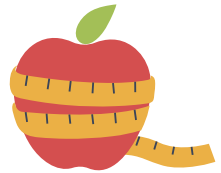
- **Lowers the risk of developing heart disease**

Diets that are low in saturated fat and rich in wholegrains lower blood cholesterol levels, and may reduce the risk of heart disease.



- **Weight management - promotes satiety (feeling of fullness)**

Fibre in wholegrain foods promote a feeling of fullness, which reduces the amount of food you eat, and discourages overeating.



- **Wholegrains and type 2 diabetes**

Research has shown that a diet rich in wholegrains can improve blood glucose control, as the fibre in wholegrains can slow down the absorption of glucose into the blood stream after a meal.

- **Promotes a healthy digestive system**

Fibre in wholegrains help maintain regular bowel movements and promote growth of healthy bacteria in the colon.



- **Cancer**

Research has shown that taking more wholegrains may provide protection against some cancers.

- **Lowers high blood pressure**

Research shows that taking wholegrains as part of the DASH (Dietary Approaches to Stop Hypertension) diet can lower or prevent high blood pressure.



## When grocery shopping

Choose products with the Healthier Choice Symbol (HCS) as they are higher in wholegrains as compared to other products in similar categories.



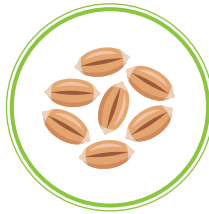
Higher in Wholegrains

## Common types of wholegrains

Please refer to Table 1 (page 3) to check how many servings of wholegrains you are recommended to eat per day, and Table 2 (page 4) to find out what is one serving of wholegrains.



*Buckwheat*



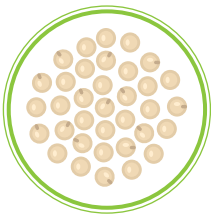
*Wholewheat*



*Brown/  
Unpolished Rice*



*Hulled Barley*



*Quinoa*



*Spelt*



*Rye*



*Oats*

# CALCIUM

Calcium is very important for building strong, healthy bones and teeth. Calcium works together with other nutrients such as protein, magnesium and vitamin D to build and strengthen bones.



Not eating enough calcium may increase the risk of developing osteoporosis in some people. Osteoporosis is a disease that causes loss of bone mass resulting in bones that are weak and easy to fracture. Many older adults suffer from fractures because their bones have lost strength and this will affect their ability to move and quality of life.

## Some facts about bones

Women are more likely to get osteoporosis as they can lose up to 20 percent of their bone mass in the 5-7 year period after menopause. Men 65 years and older are also at risk of osteoporosis. Drinking too much alcohol, smoking or being too thin can decrease the level of hormones such as oestrogen and testosterone in the body, and this can result in bone loss.

## Protect your bones!

### EAT WELL

A well-balanced diet is important for good bone strength

### MOVE THAT BODY

Regular exercise builds stronger bones

### AVOID ALCOHOL AND SMOKING

### REDUCE CAFFEINE

Caffeine in coffee, tea and some soft drinks may decrease the amount of calcium absorbed into the bones

### REDUCE FOOD HIGH IN SALT

Eating too much sodium/salt may cause bone loss

### EAT ENOUGH CALCIUM

*Reference: Osteoporosis, Appropriate Care Guide Nov 2018. Agency for Care Effectiveness, Ministry of Health, Singapore. Please refer to Table 3 (next page) for amount of calcium you need to take everyday.*

# Recommended Dietary Allowances (RDA) for calcium





	Age Group	RDA for Calcium (mg)
	Children (1 – 3 years)	500
	Children (4 – 6 years)	600
	Children (7 – 9 years)	700
	Adolescents (10 – 18 years)	1,000
	Adults (19 – 50 years)	800
	Adults (51 years and above)	1,000
	Breastfeeding/ pregnant	1,000

Table 3: RDA for calcium  
Source: Health Promotion Board, Singapore

## Food sources of calcium

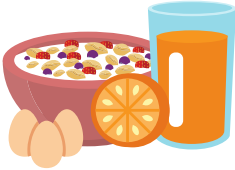
Food	Serving size	Calcium (mg)
High calcium low fat fresh milk/milk powder	1 glass (250ml/ 30g)	500
Low fat milk	1 glass (250ml)	380
Full cream milk	1 glass (250ml)	240
Low fat yoghurt	1 tub (150g)	250
Low fat cheddar cheese	1 slice (20g)	120
High calcium soy milk (with calcium added)	1 glass (250ml)	500
Soy milk powder, no sugar added (with HCS)	1 packet (30g)	270
Soy milk (hawker centre)	1 glass (250ml)	25
Enriched bread	2 slices (60g)	100-150
High calcium bread	2 slices (60g)	200
Canned sardines (with edible bones)	1 serve (70g)	250
Tofu	1 serve (150g)	250
Taukwa (higher in calcium varieties)	1 piece (100g)	150
Green leafy vegetables (e.g. kai-lan, spinach, choy sum)	1 serve (100g)	140-195
Almonds	1 handful (30g)	75



Table 4: Calcium content of foods  
 Sources: HPB Energy and Nutrient Composition of Food, last accessed on 2/12/2018  
 USDA Food Composition Databases, last accessed on 2/12/2018  
 (The values given are approximates and are usually in a range.  
 Please check the food labels for the estimated calcium content)

## VITAMIN D

Vitamin D is important for the absorption of calcium. Your bodies can make vitamin D when you are exposed to sunshine. Expose your arms and legs to sunlight for about 15 minutes per day.



Food sources of vitamin D include eggs and vitamin D fortified foods (foods with added vitamin D) such as certain brands of milk, rice milk, soymilk, orange juice, ready-to-eat cereals and margarine.

### Dietitians' tip:

- Eat a well-balanced diet and include a variety of foods high in calcium to help you get enough calcium each day.
- Get enough sun exposure and include foods rich in vitamin D to improve the absorption of calcium into your body.
- Also remember to include some regular weight-bearing exercises such as walking, jogging or ball games, to help your bones remain strong.





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