HEART FAILURE NUTRITION
Eating for a Healthy Heart
Topics:

- Heart Healthy Diet
- Fats and oils
- Check salt in foods
- Label reading
- Fluid intake (optional)
- Useful resources and apps
- Myth Busters (optional)
Heart Healthy Diet
Heart Healthy Diet

**High in**
- Antioxidants
- Dietary fibre
- Micronutrients

**Moderate in**
- Healthy unsaturated fats

**Low in**
- Saturated fat
- Trans Fat
- Added sugar
- Salt (sodium)
Cereals and Grains

• Aim for 4-6 serves/day (or to match energy needs).

• Choose wholegrain and high fibre cereal options.

• 1 serve=
  • 1 slice of bread
  • ½ bread roll
  • ½ cup cooked pasta/rice/noodles
  • 1 small scone
Vegetables

• Aim for 5 or more serves/day.

• 1 serve =
  • ½ cup cooked vegetables
  • 1 cup salad vegetables
  • ½ cup legumes/beans
Fruit

• Aim for 2 serves/day.

• 1 serve =
  • Medium size piece of fruit
  • ½ cup tinned fruit
  • ½ cup (125ml) fruit juice
  • 1 ½ tbls dried fruit
How to eat more fruit and vegetables

- Have fresh or tinned fruit as snacks

- Add chopped fruit or dried fruit to your cereal

- Include salad vegetables on sandwiches or rolls

- Make plant based foods the main part of each meal (aim to fill half the dinner plate)
  
  e.g. salad with chickpeas or kidney beans.

- Try a vegetarian meal once or twice a week e.g. “Meat Free Monday”
Dairy Products

- Aim for 3-4 serves/day
- Great source of protein, calcium and Vitamin D
- 1 serve =
  - 1 cup (250ml) milk
  - 1 cup (250ml) rice/soy/cereal drink (calcium fortified)
  - 200g tub yoghurt
  - 2 slices (40g) cheese

- Try to choose reduced fat, high calcium products
- If choosing dairy alternative drinks ensure that they are fortified with calcium and vitamin D.
Meat/ Meat Alternatives

• Aim for 2-3 serves/day.
• Good source of protein, iron and vitamin B6 and B12.

• 1 serve =
  • 65g cooked lean meat
  • 80g cooked lean poultry
  • 100g cooked fish fillet
  • 2 eggs
  • 1 cup legumes/ beans
  • 30g (small handful) nuts/ seeds
Healthy Plate Model

¼ Lean protein

¼ Low GI carbohydrate

½ Free vegetables
Heart Healthy Snack Ideas

- 200g low fat yoghurt
- 30g unsalted nuts
- Medium size piece of fruit
- Vegetable sticks with hommus
- Low fat cheese or avocado with wholegrain crackers
- Tinned tuna/ salmon (in springwater) with wholegrain crackers
Waist Circumference

• The location of fat on your body can be a risk factor for chronic disease.

• Excess body fat around your organs or midsection can increase your health risk.

**Aim for:**
- Men: < 94cm
- Women: < 80cm

• Body Mass Index (BMI) and waist circumference should be used in combination to assess your chronic disease risk.

Healthy BMI range <65 yrs = 18.5-24.9kg/m²
Healthy BMI range >65 yrs = 24-30kg/m²
Risks associated with being overweight

• Increases your risk of chronic disease conditions e.g. heart disease, diabetes, hypertension.
• Overweight/obesity is a risk factor for premature mortality.
• Associated with low energy levels.
• Increased difficulty mobilising.
Tips for losing weight

- Use the Australian Guide to Healthy Eating as a guide for portion sizes.
- Use the healthy plate model for your main meals.
- Choose low fat dairy products.
- Limit high sugar foods i.e. soft drink, juice, chocolate, lollies.
- Regular sleeping pattern.
Risks Associated with being underweight

- Compromised immune system.
- Low energy levels.
- Loss of muscle mass/ strength which can lead to increased shortness of breath.
- Difficulty mobilising.
- Increased risk of falls.
- Increased risk of becoming malnourished.

<65 years underweight = BMI <18.5kg/m2

>65 years underweight = BMI <24kg/m2
Tips for gaining weight

• Consume small frequent meals throughout the day.
• Don’t rely on your appetite to eat. Try to eat every few hours.
• Include a protein source at each meal.
• Prioritise foods that are high in energy and protein e.g. Meat/meat alternatives, dairy products, nuts/seeds, legumes, avocado, vegetable oils.
• Fortify foods with healthy fats and oils.
• Talk to your Dietitian about commencing a nutrition supplement.
High energy and protein foods
Fats and Oils
What is cholesterol?

**LDL (BAD) Cholesterol**
- Can block blood vessels, leading to increased blood pressure (BP) and risk of cardiovascular disease (CVD)

**HDL (Good) Cholesterol**
- Helps prevent heart disease- takes cholesterol in the arteries back to the liver for removal

**Triglycerides – Type of blood fat**
- High levels are associated with increased risk of heart disease

Dietary cholesterol can increase blood cholesterol but not as much as saturated fat.
What is dietary fat?

**Saturated Fats**
- Animal fat
- Butter
- Lard
- Processed foods.

**Trans Fats**
- Processed foods.

**Polyunsaturated Fats**
- Fish
- Vegetables oils

**Monounsaturated Fats**
- Olive oil
- Nuts
- Avocado

Risk of Heart Disease
Total/LDL Cholesterol

Improve Cholesterol Profile
Saturated Fat

- Found mostly in animal based products, processed foods and some oils e.g. coconut/palm oil.

- A diet high in saturated fat can increase your cardiovascular disease risk.

- Aim for saturated fat intake <7% of total energy intake. Currently the average Australian consumes about twice this recommendation.
Trans Fat

• Acts like a saturated fat in the body.

• Found mostly in processed foods as it is formed during the hydrogenation process of vegetable oils as a result of food manufacturing.

• Reducing the amount of saturated fat in your diet will also reduce the amount of trans fats you consume.

‘In Australia hydrogenation is no longer used, margarines and polyunsaturated oils in the supermarket contain negligible amounts of trans fats.’ The Heart Foundation 2013
Unsaturated Fats

Monounsaturated Fat
Can reduce total and LDL cholesterol levels

Polyunsaturated Fat
Helps reduce LDL cholesterol and triglycerides. Increases HDL cholesterol

Olive Oil
Avocado
Cashews
Salmon
Walnuts
Polyunsaturated Omega 3

**Omega 3- Marine**
- Heart Foundation recommends 2-3 serves of oily fish/ week e.g. Salmon, tuna, sardines, mackarel.
- Alternatively, can use fish oil capsules or liquid to meet omega 3 recommendations. (Consult your GP before commencing any supplementation).

**Omega 3- Plant Based Foods (ALA)**
- Aim for 1g ALA/ day.
- Found in nuts, seeds, oils, spreads (soybeans/canola).
Plant Sterols (Phytosterols)

- Naturally occurring part of all plants.

- Plant sterol fortified foods have been shown to lower blood cholesterol by up to ~10% by reducing cholesterol absorption.

- A serve of these products contain 0.8-1g plant sterols/serve.

- Need to consume 2-3g of plant sterols/day to lower cholesterol levels. This means you will need to consume **2-3 serves/day** of these products a day to lower cholesterol levels.

<table>
<thead>
<tr>
<th>Product</th>
<th>Serving size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2-3 serves/day)</td>
</tr>
<tr>
<td>Proactiv margarine</td>
<td>10g (≈2 tsps)</td>
</tr>
<tr>
<td>Proactiv yoghurt mini drink</td>
<td>100g</td>
</tr>
<tr>
<td>Heart active milk</td>
<td>250ml</td>
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</tbody>
</table>
Ideas to include healthy fats and oils in your diet

• Choose low fat dairy products
• Choose fresh, unprocessed foods
• Eat more plant based foods
• Trim fat/skin off meat
• Avoid using oils with a high saturated fat content e.g. coconut/palm oil
• Include a moderate amount of healthy fats and oils in your diet e.g. extra virgin olive oil.
Salt & Blood Pressure
High salt/sodium diet

- High Salt Diet
- Fluid Retention
- Blood Pressure
- Stress on Heart
Look for salt/sodium on food labels

Less than 1tsp salt (2300mg sodium)/ day is desirable. Some people may need less.

Food Labels:
- Look for products with <120mg of sodium per 100g.
- Look for products labelled ‘Low Salt’ or ‘No Added Salt’.

Alternative names for salt in food:
- Sodium chloride
- Monosodium glutamate (MSG)
- Sea Salt, Rock Salt
- Garlic Salt, Chicken Salt, Celery Salt, Herb Salt
- Baking Powder, Baking Soda
- Additives: eg sodium sorbate, sodium nitrite
Tips to decrease your salt intake

- Choose fresh, unprocessed foods
- Read food labels.
- Eat more plant based foods.
- Flavour with herbs, spices, garlic, lemon.
- Avoid adding salt to meals.
- Avoid highly salted foods
- Look for products with the Heart Foundation tick.
Foods High in Salt / Sodium

- Canned vegetables, legumes, vegetable juices
- Processed/cured/corned meats & pastes/ takeaway foods
- Canned fish in brine/ fish paste
- Sauces
- Spreads
- Cheese
Fluid
Controlling fluid intake

• You may be asked to limit the amount of fluid you drink each day to help control your heart failure.

• Managing your fluid intake can help to minimise fluid retention, shortness of breath, maintain blood pressure, and decrease the feeling of bloating/nausea.
What is fluid?

Anything you drink
- Tea, Coffee, Water, Milk, Fruit Juice, Soft Drink, Cordial, Alcohol

Any foods which can become a liquid in your mouth
- Soup
- Ice cubes
- Juice in canned fruit
- Ice-cream, Custard, Yoghurt,
- Jelly
- Sauces, Gravy
- Watermelon (more than one slice)
How to control fluid intake

- Measure the amount of liquid your drinking container holds (mugs, cups, glasses), or use a measuring jug
- Use smaller cups and glasses
- Reduce salt and salty foods in your diet to help reduce thirst
- Have your fluids at the time of day that is most important to you
- Some medications may be able to be taken with foods rather than liquids. Check with your Pharmacist the best way of taking your medication
- Measure and record how much fluid you are having to ensure you follow your fluid restriction
- Regularly check with your GP and/or specialist regarding how much fluid you require.
How to moisten a dry mouth

- Suck on fresh fruit that has been refrigerated or frozen
- Suck on ice cubes or ice blocks
- Rinse your mouth with water or an alcohol free mouthwash
- Suck on lemon or mints to increase saliva production
- Chew sugar-free chewing gum
Fluid intake in Summer

• Use a wet washer to cool down when it’s hot or take a cold shower
• Check with your Doctor to see if you are allowed to increase your fluid intake in Summer

Remember:
1 litre of fluid = 1 kilogram
Monitoring your weight

- Weigh yourself every day
- Weigh at the same time each morning:
  - Step 1: wake up
  - Step 2: go to the toilet
  - Step 3: weigh yourself, with the same clothing.
  - Step 4: write down your weight
- Rapid weight gain may be a result of increased fluid retention. See your Doctor immediately if you experience weight gain of more than 1.5kg per day.
Reading Labels
What to look for...

Don’t rely on health claims on labels as your guide. Instead learn a few simple label reading tips to choose healthy foods and drinks, for yourself. You can also use the label to help you lose weight by limiting foods that are high in energy per serve.

<table>
<thead>
<tr>
<th>Nutrition Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Servings per package – 16</strong></td>
</tr>
<tr>
<td><strong>Serving size – 30g (2/3 cup)</strong></td>
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<tr>
<td><strong>Per serve</strong></td>
</tr>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Protein</td>
</tr>
<tr>
<td>Fat</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Saturated</td>
</tr>
<tr>
<td>Carbohydrate</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Sugars</td>
</tr>
<tr>
<td>Fibre</td>
</tr>
<tr>
<td>Sodium</td>
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</tbody>
</table>

100g Column and Serving Size

If comparing nutrients in similar food products use the per 100g column. If calculating how much of a nutrient or how many kilojoules you will actually eat, use the per serve column. But check whether your portion size is the same as the serve size.

Energy

Check how many kJ per serve to decide how much is a serve of a ‘discretionary’ food, which has 600kJ per serve.

Sugars

Avoiding sugar completely is not necessary, but try to avoid larger amounts of added sugars. If sugar content per 100g is more than 15g, check that sugar (or alternative names for added sugar) is not listed high on the ingredient list.

Other names for added sugar: Dextrose, fructose, glucose, golden syrup, honey, maple syrup, sucrose, malt, maltose, lactose, brown sugar, caster sugar, maple syrup, raw sugar, sucrose.

Sodium (Salt)

Choose lower sodium options among similar foods. Food with less than 400mg per 100g are good, and less than 120mg per 100g is best.

Other names for high salt ingredients: Baking powder, celery salt, garlic salt, meat/veal extract, monosodium glutamate, MSG, onion salt, rock salt, sea salt, sodium, sodium ascorbate, sodium bicarbonate, sodium citrate/nitrate/nitrite, stock cubes, vegetable salt.

Other names for ingredients high in saturated fat: Animal tallow, beef fat, butter, chocolate, milk solids, coconut, coconut oil/milk/cream, corga, cream, ghee, dripping, hard, salt, palm oil, sour cream, vegetable shortening.

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Fibre

Not all labels include fibre. Choose breads and cereals with 3g or more per serve.

Ingredients: Cereals (75%) (wheat, oat bran, barley), psyllium husk (11%), sugar, rice, malt extract, honey, salt, vitamins.
Remember: Read the label

A good choice:

- Less than 3g saturated fat/100g
- Less than 15g sugar/100g
- Less than 120mg of sodium/100g food or no more than 400mg of sodium/100g
- More than 3g fibre/100g
Reading Labels: Ingredients in disguise!

You may find fat, sugar and salt listed as:

**Fat:**
Beef tallow or beef fat, butter, cream, coconut oil, hydrogenated oil, margarine, milk solids, palm oil, vegetable oil, shortening, full cream milk powder, cocoa butter.

**Sugar:**
Concentrated fruit juice, corn syrup, dextrose, fructose, glucose, golden syrup, maltose, maltodextrin, sucrose, raw sugar, cane sugar, brown sugar, honey, agave nectar, blackstrap molasses, rice syrup, rice malt, barley malt.

**Salt:**
Baking powder, celery/garlic salt, glutamate, mineral salts, MSG, rock salt, sodium, sodium bicarbonate.
Health Star Rating

Helps you to compare foods to make a healthier choice when shopping

The more stars the healthier the choice
Reading Food Labels: Group Activity

Choose 3 food packets

Look for the **100g** column

- Look at total **FAT**
- Look at **SATURATED FAT**
- Look at **SODIUM**
Key Recommendations

• Enjoy a wide range of foods from all five core food groups
• Learn to read food labels
• Limit salt intake to help control heart failure
• Monitor fluid to help control heart failure
Useful Apps

**FOODSWITCH**
- Scan barcode of food products to receive a list of similar products that are a healthier choice.
- Can select different modes depending on what nutrients you are looking at eg. Salt, gluten, general health

**MY HEART, MY LIFE**
- Heart Foundation app.
- Monitor weight, BMI, waist circumference.
- Healthy recipe ideas

**CALORIE KING**
- Monitor daily calorie intake.
- Nutrition information.
- Track your weight and progress towards your individual goals.

**CONTROL MY WEIGHT APP**
Resources

- Dietitians Association of Australia (DAA) –
  www.daa.asn.au

- The Australian Guide to Healthy Eating -

- Heart Foundation – “My Heart, My Life”
  www.heartfoundation.org.au

- NEMO Fact Sheets –
Myth Busters

“Coconut oil is healthy, and should be used in cooking”

False!

Coconut oil is made up of 85-90% saturated fat. Saturated fat increases total cholesterol and LDL (bad) cholesterol, and thus increases the risk of heart disease.

At this point in time, the Heart Foundation does NOT recommend using coconut oil.
Myth Busters

“Eating eggs will increase my blood cholesterol.”

False!

Dietary cholesterol in food, such as eggs, has only a small effect on LDL cholesterol. Saturated and trans fats in food causes a much greater increase in LDL cholesterol. You can eat up to 6 eggs per week without increasing your risk of heart disease.
Myth Busters

“Butter is healthier for me than margarine”

False!

Butter is around 50% saturated fat – that’s the unhealthy fat that raises our cholesterol levels. Margarine is a much healthier choice because it has a maximum of only 20% saturated fat.
Myth Busters

“The Paleo diet is healthy and will help me lose weight and keep it off”

False!

The Paleo diet is based on vegetables, fruit, nuts, roots and meat. While these foods are healthy, the diet excludes grain foods (breads and cereals) which are an important source of energy and fibre, and dairy foods which provide calcium, vitamins and minerals.

By following the Paleo diet, you may be missing out on important nutrients. Even if you lose weight in the short term, diets that are too restrictive (i.e. cut out whole food groups), are often too hard to follow ongoing.

For long-term sustainable weight loss, the Dietitians Association of Australia recommends following the Australian Dietary Guidelines.
“Eating dark chocolate, and drinking red wine will reduce my risk of heart disease, because they contain antioxidants”

**False!**

Whilst there is evidence to suggest antioxidants found in foods can contribute to reducing heart disease, dark chocolate and red wine are not good sources for heart health.
## Antioxidants for the heart

<table>
<thead>
<tr>
<th>Antioxidant source</th>
<th>Good choice for heart health</th>
<th>Recommendation as per the Heart Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits and vegetables</td>
<td><strong>True</strong></td>
<td>Eat 2 serves of fruit, and 5 serves of vegetables per day.</td>
</tr>
<tr>
<td>Tea</td>
<td><strong>True</strong></td>
<td>Black or green tea made with leaves or tea bags. (May add reduce, low or no fat milk).</td>
</tr>
<tr>
<td>Raw cocoa powder</td>
<td><strong>True</strong></td>
<td>Use raw cocoa powder in drinks and cooking.</td>
</tr>
<tr>
<td>Coffee</td>
<td><strong>False</strong></td>
<td>People who already drink coffee, should drink less than 5 cups per day of instant, paper-filtered, percolated, or café-style coffee in preference to boiled or plunger coffee.</td>
</tr>
<tr>
<td>Dark chocolate</td>
<td><strong>False</strong></td>
<td>Most commercial chocolate will be a poor source of antioxidants.</td>
</tr>
<tr>
<td>Red Wine</td>
<td><strong>False</strong></td>
<td>The amount of alcohol has more impact on cardiovascular health than the type of alcohol consumed. People who already drink, should consume no more than two standard drinks per day.</td>
</tr>
<tr>
<td>Antioxidant supplements</td>
<td><strong>False</strong></td>
<td>Combination or individual antioxidant supplement are not recommended for the prevention of cardiovascular disease.</td>
</tr>
</tbody>
</table>
References

National Heart Foundation:
- Guidelines for the prevention, detection and management of chronic heart failure in Australia. Updated October 2011
  The lipid position statement (2005)
- Lipid management guidelines (2001)
- Reducing Risk in Heart Disease
- Salt and Hypertension (2007)
- Position statement. Fish, fish oils, n-3 polyunsaturated fatty acids and cardiovascular health (updated November 2008)
- Position statement. Antioxidants in food, drinks and supplements for cardiovascular health, updated August 2010 (PDF)

CSANZ:
- Guidelines for the diagnosis and management of familial hypercholesterolaemia (2009)
- FZANZ
- Baker IDI
Questions?

Contact an Accredited Practising Dietitian (APD) if you would like additional information.