

# Dietary Patterns for Heart Health: an evidence informed approach.

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Heart Foundation

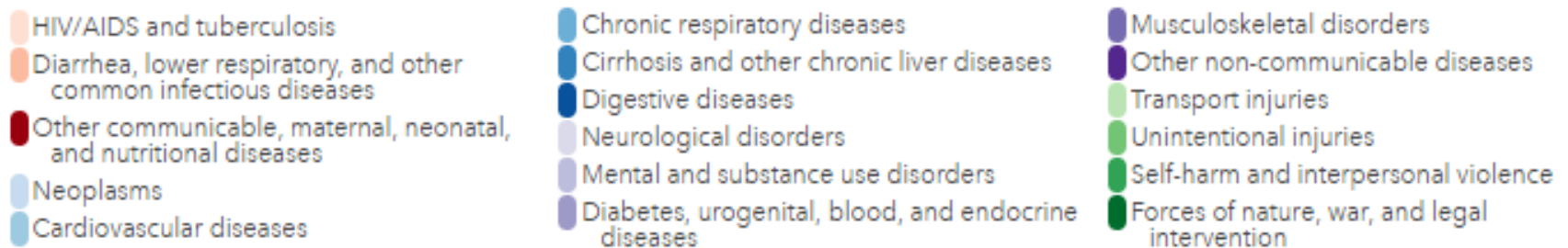
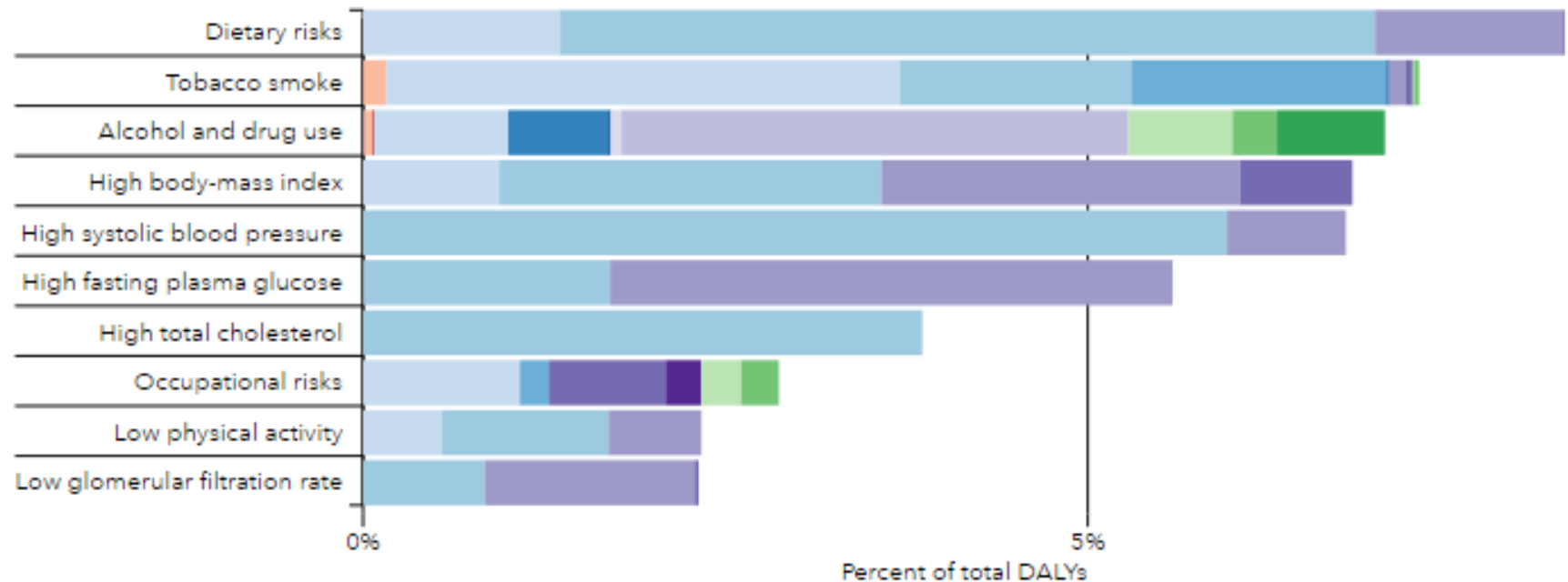
**ACRA Conference**

Tuesday 31 July 2018

## Acknowledgements:

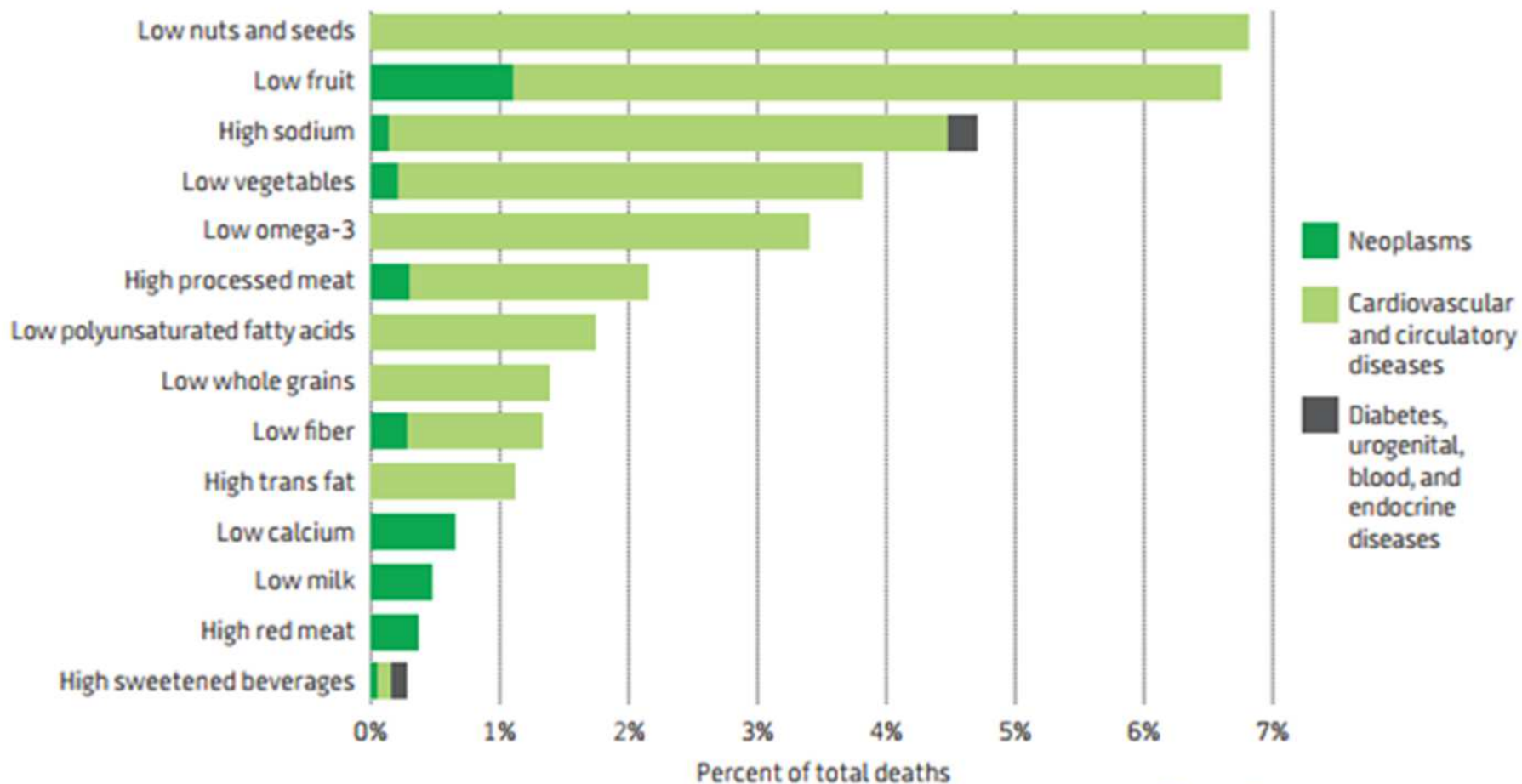


- Professor Clare Collins and colleagues; University of Newcastle, 2017.
- Professor Peter Clifton and Dr Jennifer Keogh; University of South Australia, 2017.  
I would like to acknowledge the Traditional Owners of this Land on which we are meeting today.
- Prof Paul Nestel, A/Prof David Corns, Prof David Sullivan, Dr Trevor A Mori, Dr Manny Noakes; members of Omega-3 Working Group, 2015.  
I would also like to pay respect to the Elders both past, present and emerging.
- Members of Heart Foundation advisory committees and the National Board, including
  - Food & Nutrition Advisory Committee
  - Clinical Issues Committee
  - Cardiovascular Health Advisory Committee
  - National Board of National Heart Foundation of Australia
- Ms Alison Camroux, Ms Jessie Porter & Ms Marina Mazza, Heart Foundation Policy Team



Top 10 causes of DALYs with key risk factors, 2015

Figure 1: Dietary risk factor attribution to Australian deaths, 2010



“Based on the current evidence, the optimal dietary pattern to reduce CVD is one that emphasizes

wholegrains,  
fruits and vegetables, legumes,  
nuts, fish, poultry, and  
moderate dairy  
and heart-healthy vegetable oil  
intake;

this pattern will likely reduce the CVD risk  
by about a third.”





- Systematic review
- Analysed evidence from systematic reviews published since 2010
- Primary and secondary prevention of CVD
- Assessed using NHMRC Framework

## Dietary Patterns

- Generated 16 evidence statements (4 primary, 3 secondary, 9 primary and secondary)

## Dietary Fats

- Reviewed >50 studies; 4 evidence statements

## Complemented with:

- Previous Heart Foundation Summaries
- Eating pattern trends (ABS and secondary analysis)
- Policy analysis

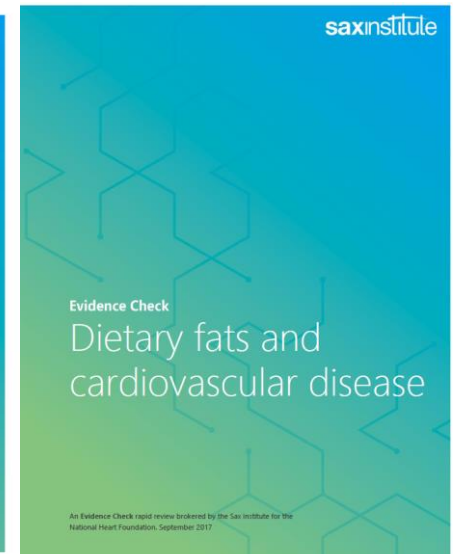
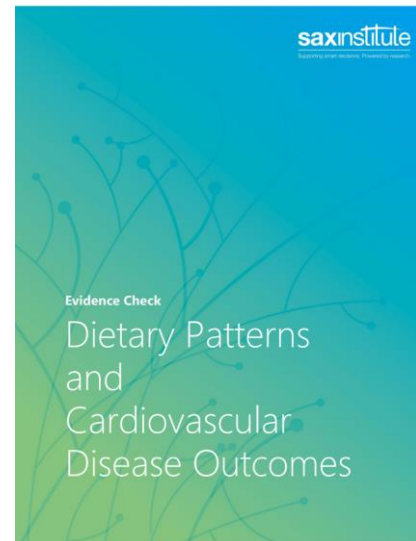


Table 3: Summary of evidence ratings relating to identified dietary patterns for primary prevention of CVD

		Blood pressure	Lipids	Weight or body composition	CVD events and/or mortality
EVIDENCE GRADE	A	• DASH	X	X	• DASH
	B	X	X	X	• Healthy/prudent
	C	X	• Mediterranean	• Low GI/GL	• Mediterranean
	D	X	X	X	X



Collins CE, Burrows TL, Rollo ME. ***Dietary Patterns and Cardiovascular Disease Outcomes: an Evidence Check rapid review*** brokered by the Sax Institute for the National Heart Foundation of Australia, 2017. Accessed August 2017, from: [https://www.heartfoundation.org.au/images/uploads/main/For\\_professionals/Dietary\\_patterns\\_and\\_cardiovascular\\_disease\\_outcomes.pdf](https://www.heartfoundation.org.au/images/uploads/main/For_professionals/Dietary_patterns_and_cardiovascular_disease_outcomes.pdf)

# Similarities more important than differences...

Dietary patterns which recommend:

100% - Fruits, Vegetables, Whole grains

85% - Beans/Legumes

60% - Fish and Reduced-fat Dairy,

50% - Nuts/Seeds,

40% - Olive oil as main cooking oil

25% - low intake of Red Meat and Processed Meat Products.

Table 2: Food components of the eight dietary patterns which reported on specific foods and/or key nutrients

Dietary Pattern	Healthy/prudent Diet <sup>24-28</sup>	Mediterranean Diet V1 <sup>29-31</sup>	Mediterranean Diet V2 <sup>32-38</sup>	Vegetarian Diet <sup>39</sup>	DASH Diet <sup>40-42</sup>	Nordic Diet <sup>43</sup>	Tibetan Diet <sup>43</sup>	Portfolio Diet <sup>16</sup>
<b>Food component</b>								
Fruits	X	X	X	X	X	X	X	X
Vegetables	X	X	X	X	X	X	X	X
Whole grains/breads/cereals <sup>1</sup>	X	X	X	X	X	X	X	X
Fish/seafood	X	X	X		X	X		
Low-fat dairy	X	X	X		X	X		
Poultry	X				X			
Beans/legumes	X	X	X	X	X		X	X
Nuts/seeds			X		X	X		X
Olive oil	X	X	X					
Rapeseed oil								
Alcohol (red wine)		X	X					
Meat and meat products								
Micronutrients <sup>2</sup>								
Plant sterols								
Limit on saturated fat		X						
Limit on meat/meat products		X	X	X				
Limit on refined sugars			X					
Limit on sodium								

<sup>1</sup> Whole grains/breads/cereals include: barley, rye, oats, wheat, corn and rice; <sup>2</sup> Micronutrients include: potassium, magnesium and



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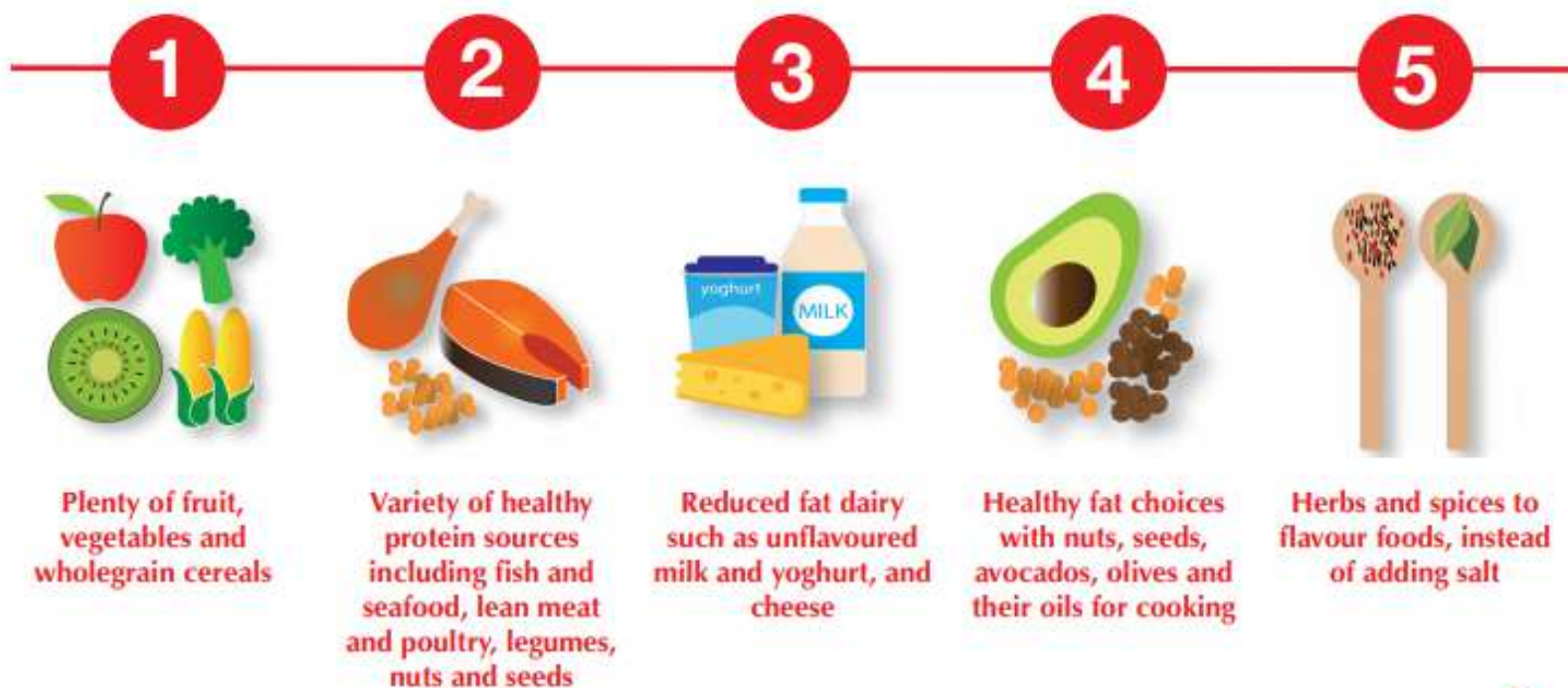
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# Heart healthy eating principles

Healthy eating patterns do not rely on one type of food or one type of nutrient to promote heart health. Heart healthy eating patterns are based on a combination of foods, chosen regularly, over time. This optimal combination can be categorised into **five healthy eating principles**.

This style of eating is naturally low in saturated and trans fats, salt and added sugar and rich in wholegrains, fibre, antioxidants and unsaturated fats (omega-3 and omega-6). Eating this way will improve the heart health of all Australians by reducing cardiovascular disease (CVD) risk factors such as high blood pressure and blood lipids and decreasing the risk of CVD events and mortality. In addition to the quality of foods consumed, their quantity is also an important determinant of a heart healthy eating pattern, as it can lead to weight gain and in turn, heart disease.



# Discretionary foods and drinks

“...not an essential or necessary part of our dietary patterns.”<sup>1</sup>

Meaning there is a zero requirement; **yet make up >30% of average energy intake**<sup>2</sup>

Following the Heart Foundation eating pattern means that discretionary foods are naturally excluded and are not part of a heart healthy eating pattern.

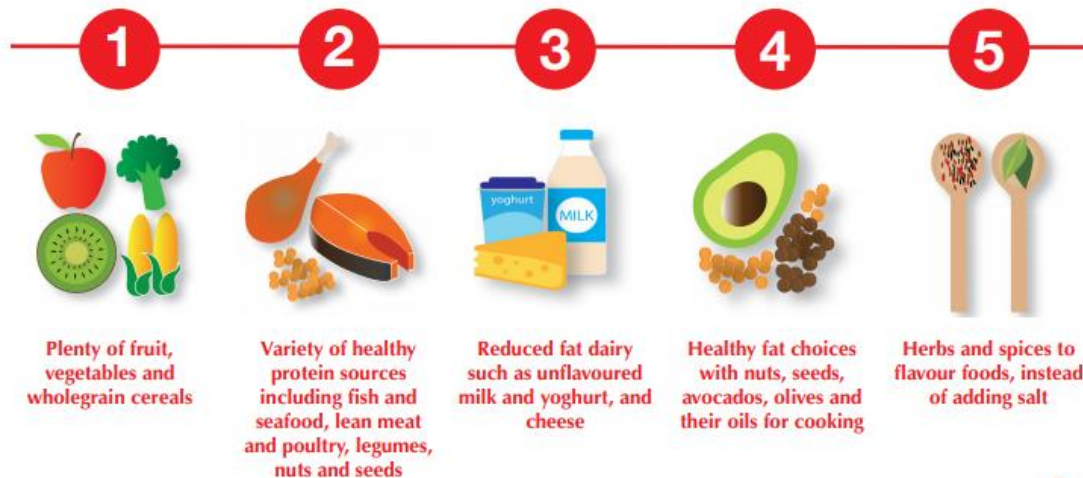
No discretionary foods feature in research on healthy eating patterns.<sup>3</sup>



1. National Health and Medical Research Council, 2013, *Australian Dietary Guidelines*. Canberra: Australian Government.  
<[https://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/n55\\_australian\\_dietary\\_guidelines\\_130530.pdf](https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/n55_australian_dietary_guidelines_130530.pdf)>
2. ABS (2016) 4364.0.55.007 - *Australian Health Survey: Nutrition First Results - Foods and Nutrients, 2011-12*,  
<<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.007~2011-12~Main%20Features~Discretionary%20foods~700>>
3. Heart Foundation (2017) Position on Dietary Patterns.

## Follow Heart Healthy Eating Principles which encourage:

- Replacement of saturated and trans fats with unsaturated fats
- Limit trans fats as much as possible
- No recommendations for dietary cholesterol
- Include wholegrains and soluble fibre
- Limit refined CHO (including free sugars <10%E)



## Limit discretionary food and drinks

- Over one-third (35%) of total daily energy.
- Major contributor to saturated fat, trans fat and refined carbohydrates (including free sugars)
- No discretionary foods feature in research on healthy eating patterns

## Health professionals can consider supplementing nutrition therapy with:

- omega-3 in people with heart failure and people with high triglycerides, and
- plant sterols enriched foods in people with high absolute risk who required cholesterol lowering therapies.

Nutrient	Target
Saturated fat	<10% total energy (E)
Omega-3 PUFA Combined EPA/DHA ALA	250-500mg /day 1g /day
Omega-6 PUFA	4-10% E
Trans fat	<1% E
Free sugars	<10% E
Sodium	<2,000mg /day

## Position statements

statements for health professionals including health professionals working in the area of nutrition

do not rely on one type of food or one type of foods are based on a combination of foods, chosen through research into dietary patterns including the healthy eating principles.

food, lean meat and poultry, legumes, nuts and

and cheese  
their oils for cooking

, salt and added sugar and rich in wholegrains, (6). Eating this way will improve the heart health of factors such as high blood pressure and blood lipids

outline our approach to healthy eating, underpinned

**Heart Foundation  
HELPLINE  
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## Position statements

- Position statement: [Eating for heart health \(PDF\)](#)
- Position statement: [Dietary Fats \(PDF\)](#)
- Position statement: [Salt \(PDF\)](#)
- Position statement: [Fish & Seafood \(PDF\)](#)
- Position statement: [Phytosterol/stanol enriched foods \(PDF\)](#)

### Eating for Heart Health

#### Position Statement

This position statement provides recommendations on the eating pattern to maintain cardiovascular health (CVH) and reduce the risk of CVD.

#### Healthy eating for your heart includes:

1. Plenty of vegetables, fruits and wholegrains
2. Sources of healthy protein sources including fish and seafood, lean meats, poultry, eggs, tofu, soy products, nuts and seeds
3. Reduced fat dairy such as unflavoured milk, yoghurt and cheese
4. Healthy fats from olive oil, seeds, avocados, olives and their oils
5. Healthy fats from nuts, seeds, avocados, olives and their oils
6. Healthy fats from nuts, seeds, avocados, olives and their oils

\*Reduce or avoid alcohol

This mode of eating is naturally low in saturated and trans fats, salt and added sugars and associated with lower risk of CVD. Eating this way is associated with reducing CVD risk factors such as high blood pressure, high cholesterol and obesity.

#### BACKGROUND

Historically, nutrition science has focused on the influence of individual nutrients in food and the role of these nutrients on the incidence of disease. While this provided the opportunity to make important advances in our knowledge of food and nutrition, it is not always clear how individual nutrients and their interactions with the body influence health. Food is a complex system of many components that are likely to be complex, with nutrient status often highly correlated, and various nutrients having interactions and synergistic effects.<sup>1,2</sup>

Over the past decade the food environment has remarkably changed. Availability and consumption of discretionary foods and drinks, a rise in sugary soft drinks, and an increase in the prevalence of 'foodborne' diseases have led to a growing concern for the role of food in health.

Given these changes, along with the need to address the poor diet quality of many people, it is important to consider the role of food in health. This document provides a summary of the current evidence on the role of food in health, and the role of food in health.

<sup>1</sup> In this document, the term 'nutrient' refers to highly processed refined grains, added sugars, saturated fats, trans fats, sodium, and added salt.

### Salt and Health

#### Position Statement

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2. Sources of healthy protein sources including fish and seafood, lean meats, poultry, eggs, tofu, soy products, nuts and seeds
3. Reduced fat dairy such as unflavoured milk, yoghurt and cheese
4. Healthy fats from olive oil, seeds, avocados, olives and their oils
5. Healthy fats from nuts, seeds, avocados, olives and their oils
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#### Evidence Check

## Dietary Patterns and Cardiovascular Disease Outcomes

An Evidence Check rapid review conducted by The Sax Institute for the National Heart Foundation of Australia, April 2017.

An Evidence Check rapid review conducted by The Sax Institute for the National Heart Foundation of Australia, September 2017.