



# Behind the hype: **Low-carbohydrate high-fat diets**

## Why is this an issue?

There is widespread public confusion about the optimal balance of fats, carbohydrates, and protein for a healthy diet. In particular, media stories have suggested low-carbohydrate, high-fat diets are linked to weight loss and improved health.

## Fats and carbohydrates in a healthy diet

The Ministry of Health Eating and Activity Guidelines are based on robust international scientific evidence and expert advice. The guidelines recommend eating a variety of foods that are mostly unprocessed whole foods, including vegetables and fruit, wholegrains, legumes, nuts and seeds, fish and seafood, eggs, lean poultry, lean meat, and low or reduced fat milk and milk products. The guidelines also recommend a low intake of refined carbohydrates, processed meats, added sugars, and salt. There is clear, consistent evidence that this type of healthy eating pattern is associated with optimal health outcomes and lower rates of chronic disease<sup>1</sup>.

A wide range of carbohydrate and fat intakes can be part of a healthy eating pattern. However, some sources and types of fats and carbohydrates are much healthier than others<sup>2</sup>. In other words, food quality is important.

## Fats

Fat is an essential nutrient and provides fat-soluble vitamins, essential fatty acids, and antioxidants<sup>3</sup>. Fats are found in many foods from both animal and plant sources. However, not all fats are the same, and the different types of fats each have a different effect on health.

- **Saturated fats** are found in animal foods such as meat, milk, butter, cheese, cream, and in some tropical oils, especially palm oil and coconut oil. Consumption of saturated fats should be limited to reduce the risk of heart disease.
- **Trans fats** are formed mainly during food processing and can be found in margarines, biscuits, and baked goods. They also occur naturally in butter, meat and milk at low levels. Consumption of trans fats should be limited to reduce the risk of heart disease.
- **Monounsaturated fats** are found in both animal and plant sources. Olive, canola, rice bran, and peanut oils, and avocados are rich in monounsaturates, which are a better choice for heart health than saturated and trans fats.

## In a nutshell

- There is public confusion around the optimal balance of fats, carbohydrates, and protein for a healthy diet.
- A wide range of carbohydrate and fat intakes can be part of a healthy eating pattern, but quality of foods choices is important.
- Foods high in saturated fats should be reduced and replaced with foods containing unsaturated fats.
- Unrefined whole carbohydrate foods provide energy, dietary fibre, and important nutrients, and can reduce chronic disease risk and aid weight management when eaten regularly as part of a balanced diet.
- Refined carbohydrates, such as processed breakfast cereals and high sugar foods and beverages, are often low in nutrients, high in energy, and should be limited.
- The Ministry of Health does not recommend low-carbohydrate, high-fat diets for weight loss because there is no evidence for their long-term benefits or safety.

- **Polyunsaturated fats** are found in seed oils such as sunflower and corn oil. The very long chain omega-3 polyunsaturated fats are mainly present in oily fish. Replacing saturated fats with polyunsaturated fats reduces the risk of heart disease and stroke.

For more information on fats, see the *Behind the Hype* fact sheets on butter and coconut oil.

## Saturated fat

While some saturated fat in the diet is acceptable, eating too much (as many New Zealanders do) can be harmful for cardiovascular health<sup>4</sup>. The Ministry of Health Eating and Activity Guidelines recommend reducing saturated fats and replacing with unsaturated fats<sup>3</sup>. For example:

- Use plant-based oils and spreads instead of butter for cooking and spreading<sup>5</sup>.
- Choose lean meat and poultry and remove skin/excess fat.
- Instead of frying: grill, boil, poach, or steam.
- Choose mainly reduced fat dairy products<sup>1</sup>. There has been some debate about whether full fat dairy products can be included in the diet. However, the New Zealand Ministry of Health and New Zealand Heart Foundation advise that eating less dairy fat is associated with reduced risk of heart disease<sup>5,6</sup>.

## Carbohydrates

Carbohydrates are the main source of energy for our brain and body<sup>7</sup> and are an important part of a healthy diet. They are found in a wide range of foods. Some carbohydrates are healthier than others.

- **Unrefined carbohydrates** are found in whole grains, fruits, starchy vegetables, and legumes (such as chickpeas, lentils, beans). These foods provide dietary fibre, vitamins and minerals, and phytonutrients<sup>2</sup>. Regularly eating a wide variety of these foods reduces risk of cardiovascular diseases, type 2 diabetes, some cancers, and helps maintain a healthy body weight<sup>1</sup>.
- **Refined carbohydrates** are found in refined grains, sugar, and foods with added sugars, such as pastries, biscuits, sweets, highly processed breakfast cereals, and sugar sweetened beverages<sup>2</sup>. These foods provide energy but generally provide few nutrients and should be eaten only occasionally<sup>1</sup>.

For more information, see the *Behind the Hype* fact sheet on sugar.

## Low-carbohydrate, high-fat diets and weight management

Low-carbohydrate, high-fat diets are being promoted by some as a way to lose weight and improve health. While these diets might aid weight loss, this is true of any reduced-energy eating plan. These types of restrictive diets are difficult to follow long-term. They also tend to recommend restricting or eliminating whole foods or food groups that are beneficial for health, such as whole grains, vegetables, fruits, nuts, seeds, and legumes. There is no sound evidence that diets high in fat (particularly saturated fat) and low in carbohydrate are better for health or weight loss than other, healthier reduced-energy diets. The Ministry of Health does not recommend low-carbohydrate, high-fat diets for weight loss because there is no evidence of their long-term benefits or safety.

DiETING of any description is never recommended for young children or for pregnant or breastfeeding mothers. See the *Behind the Hype* fact sheet on weight loss diets for further information.

## References

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