



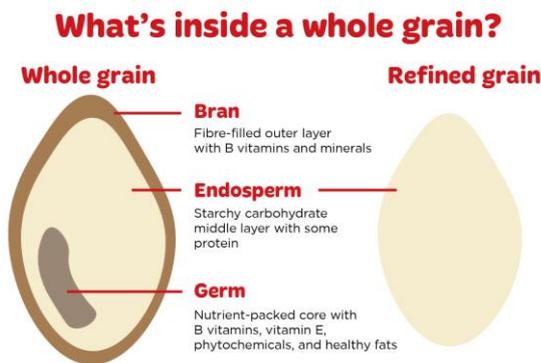
# Q & A

## Whole grains and the heart

### Q: WHAT IS A WHOLE GRAIN?

A 'whole grain' is a grain that contains all of its naturally occurring parts: the germ, endosperm and bran. Whole grains contain a wide range of nutrients including fibre, vitamins (such as B and E vitamins), minerals (such as iron and magnesium) and antioxidants.

Examples: oats, barley, whole grain bread, wholemeal flour, wholemeal pasta and whole wheat biscuits



In New Zealand, a product can claim it's 'whole grain' if it contains all three parts of the grain but the grain doesn't have to be in one piece. It can also be broken into smaller pieces or reconstituted through processing. Therefore, the word 'whole' refers to the fact that it contains all three parts, rather than the grain remaining in one piece.

These days, whole grains are most commonly eaten as reconstituted grains. In New Zealand, we get most of our whole grains from bread and breakfast cereals and therefore it is important to choose 'intact' whole grains when choosing these foods.

### Q: WHAT'S AN 'INTACT' WHOLE GRAIN?

An 'intact' whole grain is unrefined and close to how it is found in nature. Intact whole grains are more nutrient dense and best for our bodies.

Examples: oats, brown rice, barley, bulgur (cracked wheat), quinoa, buckwheat and millet.

### Q: WHAT IS A REFINED GRAIN?

When a grain is refined, the germ and bran are removed during processing, leaving just the endosperm. Refined grains contain fewer nutrients and less naturally-occurring fibre. The energy from many types of refined grains is used up quickly in our bodies.

Examples: white bread and bread products, white flour, white rice/pasta, crackers and low-fibre breakfast cereals.

### Q: ARE WHOLE GRAINS GOOD FOR ME?

Yes. The evidence shows that higher whole grain and bran intakes are consistently associated with a 16-30% lower risk of heart disease.

Whole grains (particularly oats and barley) are associated with small improvements in cholesterol, blood pressure and body weight. They are also associated with a 20-32% lower risk of type 2 diabetes.

Not all whole grains are equal. Studies on the glycaemic response (the foods' ability to raise blood sugar) suggest that whole grains, with the natural fibre structure intact (unrefined), are best for our bodies.

Despite whole grains being a nutritious food, there is no single food that improves our heart health – it is our overall diet.

Whole grains are best eaten in place of refined grains within the context of a heart-healthy eating pattern that emphasises plenty of vegetables and fruit alongside legumes, nuts, seeds, oily fish and reduced-fat dairy.

## Q: SO WHAT IS RECOMMENDED?

For the general population and those at risk of heart disease, we recommend focusing on simple, affordable swaps from refined grains to intact whole grains and high-fibre whole grain products.

We encourage people to try cooking with whole grains they may not be used to, particularly grains that are unrefined and close to how they are found in nature. Examples: oats, brown rice, barley, bulgur (cracked wheat), quinoa and millet.

## Q: HOW MUCH SHOULD I EAT?

On average, **aim for at least three servings of whole grains per day** for heart-health benefits. There are likely to be additional benefits with higher intakes.

A serving is roughly 2 wheat biscuits, ½ cup cooked porridge, 1 slice of whole grain bread, ½ whole grain bread roll, 1/3 cup cooked brown rice.

Focus on the quality of whole grain foods that make it into your supermarket trolley rather than getting too hung up on the quantity (or serving sizes). If you base your meals around whole grains, plenty of vegetables (half your plate), legumes, nuts, seeds and oily fish, the nutrients will look after themselves.

## Q. SHOULD I FOLLOW A LOW-CARB DIET?

Low-carbohydrate (low-carb) diets have become popular and usually involve avoiding or restricting processed foods, sugar, refined grains and starchy foods (like bread, pasta, rice and potato). Some low-carb diets restrict legumes and certain fruit too.

There are plenty of ways to eat for a healthy heart and a range of carbohydrate intakes are healthy. What's most important is the quality of carbohydrate and food sources.

Some whole grain products (like crackers and breakfast cereals) can be a vehicle for sugar, salt and saturated fat therefore, the closer the product is to the original grain (like oats), the better. Whole grains, fruit, starchy vegetables and legumes (regardless of their carbohydrate content) can all be a part of a heart-healthy diet.

Most of us would benefit from some of the underlying principles of a low-carb diet such as reducing refined and processed foods like white bread, biscuits and white pasta and eating more vegetables (and in particular a diverse range of types and colours).

## Q. WHAT DO I LOOK FOR ON A FOOD LABEL?

Use these tips to help you choose whole grain products at the supermarket.

- 1) **Read the ingredients list and look out for these words near the beginning:** whole wheat, whole grain, wholemeal, multigrain, oats, oatmeal, bran, kibbled wheat, barley, rye, buckwheat, quinoa.
- 2) **Read the food label and look for products that contains the MOST fibre per 100g.**
- 3) **Look for products with whole grains that you can actually see** e.g. visible chunks of the grain rather than the grain being ground or crushed.

## Q. HOW CAN I EAT MORE WHOLE GRAINS?

Consider how you can make simple, affordable swaps from refined grains to whole grains.

- Rice bubbles to oats
- White bread to whole grain bread
- White rice to brown rice, barley or quinoa
- Water crackers to whole grain crackers
- White flour to whole grain flours such as wholemeal flour
- White bread roll to a multigrain bread roll
- White pasta to wholemeal pasta

Try the following meal ideas:

**Breakfast:** porridge, Bircher muesli or toasted whole grain bread

**Lunch:** wholemeal salad wrap or soup with a whole grain bread roll

**Snacks:** whole grain crackers with hummus

**Dinner:** stir-fry with buckwheat noodles, add barley to soups, casseroles or risotto, make salads with different grains like brown rice, wholemeal pasta or quinoa

