

Whole grains and the heart



This position statement summarises the key findings and recommendations from the Heart Foundation's evidence paper, 'Whole grains and the heart'. The purpose of the evidence paper is to look at the relationship between whole grains and heart disease and whether the weight of the evidence continues to support the Heart Foundation's recommendation to choose whole grain and high fibre foods in place of refined grains.

KEY FINDINGS

The evidence shows that higher whole grain and bran intakes were consistently associated with a 16-30% lower risk of heart disease. On average, three servings of whole grains per day provides heart health benefits. Additional benefits are likely with higher intakes.

Whole grains have been associated with reducing most cardiovascular disease (CVD) risk factors within the context of a heart-healthy eating pattern including:

- small effect on reducing total and low density lipoprotein (LDL) cholesterol by 1-2% when compared to refined grains. Oats and barley have a greater beneficial effect (3-8% reduction), especially in people with high cholesterol.
- small reductions in blood pressure and body weight
- reduced risk of type 2 diabetes by 20-32% and a potential small improvement in insulin sensitivity.

The evidence does not suggest an independent beneficial effect of whole grains on inflammation within the body.

Not all whole grains and whole grain products are equal. Studies on the glycaemic response (which is the foods ability to raise blood sugar levels) show that whole grains with the natural fibre structure intact (unrefined) are best for our bodies.

LIMITATIONS

A limitation of the evidence is the inconsistency in the definition of whole grain structure. Most studies don't differentiate between intact whole grains (e.g. grains that haven't been ground or milled) and whole grain products. Despite there being a considerable body of evidence, most research showing the benefits of whole grains in relation to heart disease is observational data and is only partially backed by intervention studies on risk factors.

SUMMARY

Overall, the evidence suggests that eating whole grain foods is associated with a reduced risk of heart disease. Whole grains may be most useful for people who need to lower their cholesterol and control blood sugar levels to reduce CVD and type 2 diabetes risk.

Despite whole grains being an important and nutritious food, the focus should be on total diet quality. Whole grains are best eaten close to how they are found in nature (unrefined and intact). Eat them, in place of refined grains, within the context of a heart-healthy dietary pattern containing plenty of vegetables and fruit alongside legumes, nuts, seeds, oily fish and reduced fat dairy.

RECOMMENDATIONS

For the general population and those at risk of heart disease.

- 1) Where possible, **choose intact whole grains (unrefined)** that are close to how they are found in nature (see examples below).
- 2) If you choose to eat grains, **focus on simple, affordable swaps from refined grains to whole grains or high-fibre whole grain products** (see examples below).
- 3) On average, **aim for at least three serves of whole grain foods per day** for heart-health benefits (see examples below).

REFINED GRAINS	WHOLE GRAIN PRODUCTS	INTACT WHOLE GRAINS	ADULT SERVING SIZE EXAMPLES*
White bread, rolls, wraps, flat breads etc.	Wholemeal and mixed-grain breads, rolls, wraps, flat breads	Whole oats	½ cup cooked porridge
Crackers or crispbread	Whole grain crackers, crispbread and oat cakes	Brown rice	1/3 cup natural muesli
White rice	Wholemeal pasta	Barley	1/3 cup brown rice (cooked)
Pasta	Wholemeal couscous	Bulgur (cracked wheat)	2 whole wheat biscuits
Couscous	Muesli	Quinoa	3 crispbreads
Puffed rice cereals and other low-fibre cereals	Wheat biscuits	Millet	1 slice whole grain bread
White flour (and products i.e. bagels, pikelets, cakes, biscuits, donuts)	Bran cereals	Buckwheat	½ whole grain bread roll
	Wheat bran		
	Wheat germ		
	Flours (i.e. wholemeal)		

* Note: Focus on the quality of whole grain foods rather than getting hung up on the quantity (or serving sizes). If meals are based around whole grains, plenty of vegetables (half of the plate), legumes, nuts, seeds and oily fish, the nutrients will look after themselves.