

Wholegrains - The Way To Go...

What are wholegrains?

A huge variety of cereal crops are grown for food throughout the world including wheat, rye, barley, oats and rice. Grains are the seeds of these cereal plants. Wholegrains consist of three elements:

- A fibre-rich outer layer (the bran)
- A nutrient-packed inner area (the germ) and
- A central starchy part (the endosperm)

During processing or milling, the bran and the germ are often removed to give a 'whiter', refined cereal. Wholegrains on the other hand contain the whole grain, keeping all three layers together with their valuable concentration of nutrients.



Wholegrains are one group of foods we should be eating more of as part of a healthy diet. However, most cereal foods eaten in the UK are refined and our intake of wholegrains is very low. Surveys show that 95% of adults don't eat enough wholegrains¹ and nearly one in three of us get none at all².

What nutrients do wholegrains contain?

Most of the goodness is concentrated in the outer bran layer and germ of the seed so wholegrains can contain up to 75% more nutrients than refined cereals. Wholegrains are rich in fibre - both the insoluble type (which helps keep a healthy bowel and avoid constipation) and the soluble form (which helps to lower cholesterol levels and promote healthy gut bacteria). However, with wholegrain foods you also get all the benefits of a whole range of other nutrients as well. These include:

- B vitamins and folic acid, omega 3 fat
- Minerals such as magnesium, zinc, phosphorus and iron
- Antioxidants including vitamin E, selenium and copper and phytonutrients such as phytoestrogens (lignans)

Why do we need wholegrains?

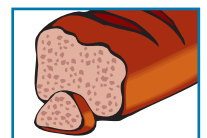
Evidence is mounting that eating wholegrains regularly as part of a healthy diet and lifestyle may help to reduce the risk of many common

diseases. Fibre alone cannot account for all the health-promoting properties and it seems to be the "complete package" of nutrients working together in wholegrains which offers protection, rather than any one nutrient in isolation. Research suggests that:

- The risk of both heart disease and type 2 diabetes may be up to 30 % lower in people who regularly eat wholegrain as part of a low-fat diet and healthy lifestyle^{3,4}. This benefit is not seen with refined cereals and is even greater than that seen with fruit and vegetables.
- Some forms of cancer of the digestive tract may be lower with higher intakes of wholegrains. The fibre in wholegrains not only moves food along more quickly and easily, reducing the time that damaging substances are in contact with the gut wall, but also seems to provide a food source for the 'friendly' gut bacteria enabling them to thrive and produce substances considered protective for the gut wall, such as short-chain fatty acids.
- Wholegrains may also help in maintaining a healthy body weight over time. Wholegrain tend to be low in fat but rich in carbohydrate, often with a low glycaemic index (GI) (see table). This means they provide a slow release of sugar into the blood which, together with fibre content, may help keep you feeling fuller for longer - helping to control snacking.

How can I increase my intake of wholegrains?

- When choosing foods from the starchy food group, replace refined cereal foods with wholegrain varieties. Wheat, oats, barley, rye and rice are the most commonly-available cereals which can be eaten in the wholegrain form
- To find them, look for the word "whole" before the name of the cereal e.g. whole wheat pasta, whole oats.
- Aim to get at least half your starchy carbohydrates as wholegrains or around two to three servings a day.





Wholegrain Foods and Ideas For Use



Type of Food	Wholegrain Varieties	Ideas for Use
Breakfast cereal	Whole oats including rolled oats and oatmeal*; whole wheat cereals such as Weetabix, Shreddies, Shredded Wheat, Bran flakes, Wholegrain Fruit and Fibre, Puffed wholegrains, Kashi, Cheerios, Grape nuts and wholegrain muesli*; wholegrain cereal bars	With milk or yoghurt for breakfast or as a snack. As a topping for crumbles or pies.
Bread and crackers	Wholemeal; granary, wheatgerm; multi-grain, seeded or mixed-grain bread*; soya and linseed breads*; wholewheat crackers and pitta; rye bread (pumpernickel)*; rye crispbread*; wholegrain rice cakes, oatcakes*.	In place of white bread, cream crackers and sweet biscuits.
Flour	Wholemeal flour; wheat germ; buckwheat flour; unrefined rye* and barley flour*; oatmeal and oat flour*.	In baking or recipes in place of white flour.
Meal accompaniments	Brown rice; wholewheat pasta*; whole barley*, bulgur wheat* (cracked wheat) quinoa* pearl barley*	With casseroles, curries and sauces; in salads.

* *Low GI varieties of wholegrains*

In Summary

Most of us eat too few wholegrains to get the health benefits from the whole range of nutrients they contain which are lacking in refined cereals. However, given the wide variety of wholegrain foods now available, it is easier than ever to make them the tasty staples of a healthy diet.

References

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3. Steffen LM et al (2003) Associations of whole-grain, refined-grain and fruit and vegetable consumption with risks of all-cause mortality and incident coronary artery disease and ischaemic stroke: the Atherosclerosis Risk in Communities (ARIC) study. American Journal Clinical Nutrition 78: 383-390
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