

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.

What is a wholegrain?

The entire grain or 'wholegrain' is made up of three elements:

- a fibre-rich outer layer - the bran
- a nutrient-packed inner part - the germ
- a central starchy part - the endosperm

During the milling process, the bran and the germ are often removed to give a 'whiter' cereal.

What nutrients do wholegrains contain?

Most of the goodness in grains is in the outer bran layer and germ of the seed so wholegrains can contain up to 75% more nutrients than refined cereals. Wholegrains provide:

- fibre - both soluble (the type that dissolves in water) and insoluble (the type that doesn't)
- B vitamins and folic acid
- essential fatty acids (omega 3)
- protein
- antioxidants including vitamin E, selenium
- micronutrients like copper
- other parts of the plant which may have health benefits

Wholegrain Foods and Ideas for Use

Type of Food	Wholegrain varieties	Portion Size = 1 serving	Ideas for use
Breakfast cereal	Whole oats including rolled oats and oatmeal*; wholewheat cereals such as Weetabix, Shreddies, Shredded Wheat, bran flakes, puffed wholegrains, wholegrain muesli*; and wholegrain cereal bars	one tablespoon uncooked oats three Tbsp wholegrain cereal	With milk or yoghurt and fruit for breakfast or as a snack. As a topping for crumbles As a snack Avoid those with added sugar and salt
Bread and crackers	Wholemeal, granary, wheatgerm, wholegrain with multi-grain*, seeded*, mixed-grain*, soya* linseed*, rye (pumpernickel)*, pitta, wholewheat crackers, and rye crispbread*	one medium slice bread ½ wholemeal tortilla ½ wholemeal pitta two rye crisp bread two oatcakes	In place of white bread, cream crackers and sweet biscuits
Flour	Wholemeal, wheat germ, buckwheat, unrefined rye*, barley*, oatmeal* and oat flour*	n/a	In baking or recipes in place of white flour
Meals	Brown rice, wholewheat pasta*, whole barley*, bulgur (cracked) wheat* , quinoa*, and barley (not pearl)*	two heaped Tbsp cooked brown rice three Tbsp wholegrain pasta	With casseroles, curries, sauces, in soups, and in salads
Snacks	Wholegrain cereal bars, oats cakes, wholegrain rice cakes, popcorn (plain), wholemeal scone, and wholegrain breakfast cereals	½ scone two oatcakes two to three cups plain popcorn	In place of sweets, crisps and savoury snacks, cream crackers and sweet biscuits

* Low GI varieties of wholegrains

List of wholegrains

Cereals:

- Wheats, including spelt and durum
- Rice
- Barley including hull-less or naked barley but not pearled
- Maize (corn)
- Rye

- Oats, including hull-less or naked oats
- Millets
- Wild rice

Other grains:

- Buckwheat
- Quinoa

- Wholegrains are usually low in fat but rich in fibre and starchy carbohydrate; they often have a low glycaemic index (GI). This means they provide a slow release of carbohydrate into the blood which, together with fibre content, may help keep you feeling fuller for longer - helping to control snacking and appetite
- 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 wholegrains and nearly one in three of us get none at all

Why should we choose wholegrains?

Evidence is growing that eating wholegrains regularly as part of a healthy diet and lifestyle may help to reduce the risk of many common diseases. It is not only the fibre that has health-promoting properties and it seems to be the 'complete package' of nutrients working together that offers protection.

Research suggests that:

- The risk of heart disease, stroke and type 2 diabetes may be up to 30% lower in people who regularly eat wholegrains as part of a low-fat diet and healthy lifestyle
- The risk of developing some forms of cancer of the digestive system like bowel cancer may be reduced with higher intakes of wholegrains. The insoluble fibre in wholegrains moves food along more quickly and easily, reducing the time that damaging substances are in contact with the gut wall
- The soluble fibre provides a food source for 'friendly' gut bacteria, helping them to increase and produce substances which are thought to protect the gut wall, such as short-chain fatty acids
- Wholegrains may help in maintaining a healthy body weight over time as part of a healthy diet and lifestyle

How can I increase my intake of wholegrains?

When choosing foods from the starchy food group, replace refined cereal foods such as white bread and rice with wholegrain varieties such as wholemeal bread and brown rice. 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. wholewheat pasta, whole oats and make sure they are high up/first in the ingredients list. Multigrain is not the same as wholegrain, it means that the product contains more than one different type of grain. There is currently no advice on what amount of wholegrains to eat in the UK but many experts in other countries say to aim for three servings a day (see table overleaf for portion size).

Summary

Most of us eat too few wholegrains to get the health benefits from the whole range of nutrients they contain as we tend to eat more 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.

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Written by Sian Porter, Dietitian.

The information sources used to develop this fact sheet are available at www.bda.uk.com/foodfacts

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