

Food Fact Sheet: Wholegrains

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. 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; and
- 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
- B vitamins and folic acid
- essential fatty acids (omega 3 fats)
- protein
- antioxidants including vitamin E, selenium
- micronutrients like copper and magnesium
- other parts of the plant (phytochemicals) which may have health benefits.

Why should we choose wholegrains?

Evidence is growing that eating wholegrains regularly as part of a healthy diet and lifestyle helps to keep us healthy and may also help to reduce the risk of many common diseases. It is not only the fibre in wholegrains that has health promoting properties - it seems to be the 'complete package' of nutrients in wholegrains that work together to offer 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. Some of the fibre in wholegrains moves food along more quickly and easily, reducing the time that damaging substances are in contact with the gut wall.
- Some of the 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.
- Wholegrains are usually low in fat but rich in fibre and starchy carbohydrate and 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 - aiding 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.

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. whole-wheat 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 below for portion size).

List of wholegrains

Cereals:

- wheats, including spelt and durum
- rice
- barley including hull-less or naked barley but not pearled
- maize (corn)
- rye
- millets
- oats, including hull-less or naked oats
- wild rice

Other grains:

- buckwheat
- quinoa
- 'ancient grains' e.g. kamut, freekah, amaranth.

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.

Wholegrain foods and ideas for use

Type of Food	Wholegrain varieties	Portion Size = 1 serving	Portion Size = 1 serving
Breakfast cereal	Whole oats including rolled oats and oatmeal*; wholewheat cereals such as Weetabix, 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 (pumpnickel)*, pitta, wholewheat crackers, and rye crispbread*.	One medium slice bread ½ wholemeal tortilla ½ wholemeal pitta two rye crisp bread two oatcakes.	One medium slice bread ½ wholemeal tortilla ½ wholemeal pitta two rye crisp bread two oatcakes.
Flour	Wholemeal, wheat germ, buckwheat, unrefined rye*, barley*, oatmeal* and oat flour*.	n/a	In baking or recipes in place of white flour or mixed half and half.
Meals	Brown rice, wholewheat pasta*, whole barley*, bulgur (cracked) wheat*, quinoa*, and barley (not pearl)*.	Two-three heaped tbsp cooked brown rice Two-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/ individual bag plain popcorn.	In place of sweets, crisps and savoury snacks, cream crackers and sweet biscuits

* Low GI varieties of wholegrains