



Our daily bread

Does bread on the market today stand up to its traditional function as the staff of life? We looked at bread labels to investigate how alternatives to the white sliced pan measure up.

The potato was once the mainstay of the Irish diet, but bread is now just as popular. The North South Food Consumption Survey found that 94% of Irish consumers eat white bread and 73% eat wholemeal and brown. Bread is one of the more common grain sources in the diet, more popular than rice and pasta (eaten by 44%) and breakfast cereals (67%).

Dietary advice

According to the US Whole Grains Council (see *Useful websites*), health professionals recommend consumers eat at least half of their grains as wholegrains. In Ireland, such specific guidelines do not exist, however general recommendations do. The Irish Nutrition and Dietetic Institute (see *Useful contacts*) recommends we choose wholegrain, unprocessed food as much as possible, or those that contain more than half wholegrain ingredients. The Department of Health's healthy eating guidelines recommend we eat more foods rich in fibre, especially wholegrain bread and cereals, as well as fruit and veg.

A sum of its parts

We should get at least 24g and preferably 30g of fibre daily, but advice to eat more

wholegrains isn't just about increasing our fibre intake.

Wholegrains are made up of three parts, the germ, endosperm and outer bran layer. All the parts contain nutrients, but especially the germ, which contains vitamin E, B group, magnesium, iron and antioxidant phytochemicals. In addition to fibre, the bran layer contains B vitamins and antioxidants. The endosperm is the largest part of the grain and contains the carbohydrate. This is the main component of refined white flours.

Regular consumption of wholegrains has significant health benefits. They promote better digestive health and a higher consumption has been linked with preventing cancers of the stomach, bowel and colon. Wholegrains are digested at a slower rate than refined grains, which keeps us full for longer. Consumers who eat more wholegrains have been found to have lower levels of obesity. High wholegrain consumption has also been linked to reduced risk of heart disease, with vitamin E and fibre the important nutrients for this benefit.

Wholegrain bread has a lower glycaemic index value than brown or white (see 'The glycaemic index', *Consumer Choice*, February 2008, p78). Research suggests that high GI foods can

increase the risk of developing type 2 diabetes because blood glucose and insulin are raised more often than when lower GI foods are consumed.

The North South Food Consumption Survey found that vitamin, mineral and fibre intakes were lower and fat higher in white bread eaters than those who preferred brown, although these differences cannot be solely attributed to consuming wholegrains. People who eat wholegrains are also likely to make other lifestyle choices to support health, such as eating more fruit and veg and taking more exercise. Nevertheless, wholemeal bread is still one contributing factor.

Quality

With health professionals advising us to consume more wholegrains, what better way to start than with a food we already eat a lot of? However, the quality of bread has been criticised in terms of the quality of flour used and the additives it contains. A campaign for 'Real Bread' (see *Useful websites*) has been launched by food groups in the UK to increase consumption of more nutritious bread, rather than bread made solely from refined white flour with flour improvers, processing aids and additives.

We surveyed 30 breads on the Irish

AT A GLANCE

Bread survey.

Wholegrain benefits.

Useful contacts

Food Safety Authority of Ireland

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Advice 1890 336 677
tel (01) 817 1300
fax (01) 817 1301
email info@fsai.ie
www.fsai.ie

Irish Nutrition and Dietetic Institute

Ashgrove House
Kill Avenue
Dun Laoghaire
Co. Dublin
email info@indi.ie
www.indi.ie

Useful websites

Real Bread Campaign

www.sustainweb.org/realbread

Whole Grains Council (US)

www.wholegrainscouncil.org

market, including brown, multigrain, soda, wholegrain, and wholemeal to assess content based on ingredient lists.

Salt

Most bread includes basic ingredients such as salt and yeast. While it can be a good source of wholegrains, statistics suggest that bread contributes to almost 26% of the average person's salt intake. Salt improves the flavour of bread and assists the baking process.

Among the breads we looked at, brown soda was the worst salt offender. Three out of five had a high salt content. Most others were classed as medium, but were at the higher end of this category, with most having over 1g of salt per 100g (see *Bread survey*).

The levels of salt in bread are gradually being reduced. A commitment was made by the Irish Bread Bakers Association, which includes bakers like Brennans and Johnston Mooney and O'Brien, to reduce salt in bread by 10% by the end of 2008. This is part of a wider initiative by the Food Safety Authority of Ireland (FSAI, see *Useful contacts*) to reduce the salt content in all foods.

Against the grain

It can be unclear from bread labelling exactly how much of the wholegrain it contains. No specific legislation exists to govern bread names; the general food law applies. This states that the consumer must not be misled, so wholegrain and wholemeal bread must contain wholemeal flour (which contains all parts of the grain with nothing taken away during processing).

All of the wholemeal breads we looked at only contained wholemeal flour. However, of the wholegrain breads, half had more white flour than wholemeal. While the term 'wholemeal' refers to a type of flour and the product must contain this flour, it is more difficult to pinpoint what other types of bread such

as 'brown', 'granary' and 'multigrain' should contain. These breads can look like they contain wholegrains, but actually most contain a mix of different flours, such as refined white flour with bran or seeds added. Malted flour is often added that can make the bread look brown. There is no guarantee there's any actual wholegrain in brown, granary and multigrain breads.

Of all of the brown breads we looked at, four out of six contained refined wheat flour with bran added and not the wholegrain. Brown soda bread did better with the majority having predominantly wholemeal flour, but one had more refined than wholemeal and another no wholemeal but white flour with added bran. While all of the multigrain breads contain added ingredients such as seeds, cracked grains, wheatgerm and bran, only one contained a greater amount of wholemeal flour than refined and another had some wholemeal. All others had no wholemeal flour whatsoever.

Wholegrain guarantees

Consumers in the US and Canada can identify wholegrain foods by the wholegrain stamp. In January a product was launched in the UK with this stamp. Breads that carry the mark must have at least 51% wholegrain flour.

Ireland does not have an equivalent scheme that helps consumers evaluate the amount of wholegrain in their bread. Given that the bread's name is not a clear indicator of its wholegrain content, the consumer can then look to the ingredients. As with all ingredient lists, what is in greatest proportion is listed first. However, the percentage of each type of flour contained in the bread is rarely given. If the first ingredient is wheat flour, this means refined white flour. While our survey identified which breads have wholemeal flour, we cannot identify in what proportions. A labelling scheme, such as the wholegrain stamp,

could assist Irish consumers to make better food choices.

Consumers are left guessing with unpackaged bread as it does not have to declare its ingredients. Judging on appearance or by the bread's name is not reliable, as our survey has revealed.

Marketing

Bread marketing can play on the healthier status of wholegrain bread, while not actually being wholegrain. Manufacturers are not technically doing wrong by using statements such as 'the goodness of seven grains', 'hearty grain bread', 'a bread less ordinary', and 'part of a healthy diet'. Such statements can mislead and confuse the health conscious consumer. EU food labelling legislation (Directive 2000/13/EC) states that the consumer must not be misled by attributing to the foodstuff effects or properties that it does not possess.

Other ingredients

The UK campaigners for 'Real Bread' criticise modern bread for its many added ingredients, in addition to what bread traditionally contains. Our survey revealed 53% of the breads had preservatives, 77% emulsifiers and 80% flour treatment agents. Soya flour and the wheat protein, gluten, can be added during bread making to increase the protein content of the flour, which makes the dough more elastic. We found soya flour in 60% and added gluten in 30% of the breads surveyed.

White is nicer?

Ireland's consumers eat more white bread than brown, according to food consumption data. Do more consumers eat white bread because they prefer its taste? A 2007 study published in the *Journal Food Science* investigated found that some consumers preferred white, while others preferred wholegrain. Adding different ingredients and improving the texture of wholegrain bread was found to increase the likelihood of consumers preferring wholegrain bread. If such techniques were used in Irish bakeries, this could potentially increase consumer acceptance of wholegrain bread.

Why not make your own?

Sometimes the only way to solve a problem is to take it into your own hands. If you bake bread at home you can control exactly what is added. It's

choice comment

Consumers know that wholegrains are good for them and may choose bread that they think is the healthier choice, but finding breads that contain the wholegrain, and nothing but, are difficult to recognise on face value. Bread is convenient food and we are likely to consume more of it when living hectic lifestyles. This makes ensuring it is the best quality possible more crucial. Stricter requirements on bread marketing would help, such as setting the percentage of wholemeal flour that the bread must contain if the terms brown, wholegrain and multigrain are used. Labelling rules should also be strengthened, such as stating the percentages of each flour contained in the bread. With health professionals advising we eat more wholegrains, healthier breads could provide a convenient source of wholegrain in the consumers' diet.

OUR BREAD SURVEY

	Main flour	Salt g per 100g	Salt ¹ g per slice	Fibre g per 100g ¹	Fibre g per slice
Average white sliced pan	wheat	1.3	0.5	2.8	1.06
BROWN					
Hovis Brown Bread with Wheatgerm 800g	'Hovis' wheat with wheatgerm	1.5	0.5	5.1	1.9
Irish Pride Big Toast Brown 800g	wholemeal wheat	2.5	1	4.8	2
Irwin's Brown 800g	wheat	1	0.38	5.4	0.9
Pat the Baker Brown Sliced 800g	wheat	1.25	0.55	5.4	2.2
Superquinn High Fibre 800g	wheat	1.1	0.35	6	2
Tesco Value Brown 800g	wholemeal wheat	1	0.5	4.8	1.8
BROWN SODA					
Brennans Farmhouse Brown 600g	wheat	1.9	0.9	2	0.9
Brennans Natural Recipe Company Wholewheat 500g	wheat	1.9	0.6	5.4	1.7
Irwin's Sliced Brown Soda 500g	wholemeal wheat	1	0.5	5.8	2.3
McCambridge Stoneground Wholewheat 500g	wholemeal wheat	1.3	0.5	5.8	2.2
Tesco Wholewheat Soda 400g	wholemeal wheat	2	1.3	4.7	3
MULTIGRAIN					
Brennans Natural Recipe Company Crunchy Seven Grain 600g	wholemeal wheat	0.8	0.3	4.2	1.4
Irish Pride Farmhouse Rustic Grain 800g	wheat	1	0.5	3	2.6
Irish Pride Healthy Grain 800g	wheat	1	0.75	3	2.2
Irwin's Multigrain 800g	wheat	0.75	0.25	5.7	2.2
Johnston Mooney & O'Brien Hearty Grain 800g	wheat	1.1	0.4	5	1.9
Johnston Mooney & O'Brien Nutty Doorstep 800g	wheat	1.1	0.6	5	2.5
Lifefibre Country Rye and Seed Bread 550g	wheat	1.5	0.6	8.6	3.6
Pat the Baker Multigrain 800g	wheat	1	0.4	6.5	2.6
Superquinn Multigrain 800g	wheat	1.1	0.35	3	1
Vogel Mixed Grain Brown 800g	unbleached, untreated wheat	0.5	0.15	6.37	1.9
WHOLEGRAIN					
Brennans Wholegrain 800g	wheat	1.3	0.5	5	1.9
Dunnes Wholegrain 800g	wheat	1.1	0.85	5.4	4.1
Irish Pride Wholegrain 800g	wholemeal wheat	1	0.5	7.5	2.9
Johnston Mooney & O'Brien Wholegrain Goodness 800g	wholemeal wheat	1.1	0.5	9	3.4
WHOLEMEAL					
Brennans 100% Wholemeal 800g	wholemeal wheat	1.1	0.4	8	3
Brennans Soft Wholemeal 800g	wholemeal wheat	1.4	0.5	7.4	3.3
Country Kitchen Pita Wholemeal Oval 6pk 360g	wholemeal wheat	1.8	0.5	6.4	4.2
Dunnes Wholemeal Premium 800g	wholemeal wheat	1.1	0.85	7	5.32
Pat the Baker 100% Wholemeal 800g	wholemeal wheat	1.5	0.6	5.3	2.1

¹ Slice size varies. On pack nutritional information can be given per serving, which is equivalent to two slices.

cheaper too - wholemeal flour costs about €1.20 a kilo, a sachet of yeast around 30c. This should roughly make one large loaf. Some even say it's therapeutic. You can take out any pent up anger in the kneading process and the final product is a true reward. And if that sounds like too much work, but you're still tempted by the thought of fresh bread in the morning, why not check out our **Choice Buy** breadmakers on p22!

NUTRITIONAL CRITERIA ¹

Salt	Green (low)	Amber (medium)	Red (high)
	≤0.30g/100g	>0.30 to ≤1.50g/100g	>1.50g/100g
Fibre	Red (low)	Amber (medium)	Green (high)
	≤3.0g/100g	>3.0g to ≤6g/100g	>6g/100g

¹ UK Food Standards Agency (FSA) nutritional criteria for traffic light signpost labelling. The fibre rating is also based on FSA criteria, but this nutrient is not part of the traffic light scheme.

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