

# Fact Sheet

Central Adelaide Local Health Network  
Diabetes Education Service

## Dietary fibre

### What is fibre?

Dietary fibre is the part of plant foods that cannot be digested by the body and passes relatively unchanged through our stomach and intestines. It is found naturally in wholegrain cereals, fruit, vegetables, seeds, nuts and legumes. Dietary fibre can also be added to foods to increase the fibre content. There is no dietary fibre in meats and dairy foods.

### Why is fibre important?

Dietary fibre has many health benefits. The main role of fibre is to keep the digestive system healthy. It is important for good health and is effective in treating and preventing the following disorders:

- > **Constipation** – Dietary fibre, in particular ‘insoluble fibre’ is effective in preventing and treating constipation. Insoluble fibre acts as a laxative by softening and ‘bulking’ the stools. Remember to drink adequate fluid (6-8 glasses per day) and exercise regularly for healthy bowel function.
- > **Diabetes** – Most carbohydrate foods are broken down into glucose in the small intestine. Your blood glucose levels may be better controlled if you eat high fibre carbohydrates because glucose is absorbed more slowly into the blood stream. A high fibre diet may also reduce the risk of developing diabetes.
- > **Weight control** – A high fibre diet provides bulk and a feeling of fullness. Soluble fibre and whole grains can slow down the digestion of your meal making you feel full for longer and less likely to eat more.
- > **Lowering blood cholesterol** – Soluble fibre has been shown to lower LDL (‘bad’ cholesterol). Including wholegrain foods in your diet may also decrease the risk of heart disease and stroke.
- > **Diverticular disease** – Diverticulae are sacs or pouches which occur at weak points in the gut. They sometimes become inflamed, resulting in diverticulitis. The biggest cause of diverticular disease is a low fibre diet. An increase in fibre can usually assist with this condition. Consult your doctor or dietitian.
- > **Cancer** - Regular consumption of whole grains (at least 4 serves) may reduce the risk of developing bowel or stomach cancer.



## Types of fibre

Type of fibre	Benefits	Foods
<b>Soluble</b>	Dissolves in water to form a thick 'gel' in your gut, which slows down digestion. This can help to: <ul style="list-style-type: none"> <li>▪ lower blood cholesterol;</li> <li>▪ control blood glucose levels if you have diabetes;</li> <li>▪ make you feel full for longer</li> </ul>	Fruit, vegetables, legumes, oats and oat bran, barley, rice, *BARLEYmax and barley bran, rice bran, psyllium husks.
<b>Insoluble</b>	The hard skins and surfaces of grains, seeds and roots which are not easily digested. Helps to keep your bowels regular and prevent constipation by absorbing water in the gut, forming larger bulkier stools.	Wheat bran, wholegrain breads and cereals (including wholemeal bread and brown rice), fruit skin and vegetables, nuts, seeds.
<b>Resistant starch</b>	The part of starchy food (about 10%) that does not get digested in the small intestine. It goes straight to the large intestine where it stimulates the growth of 'good' bacteria, which keeps the cells of the bowel healthy and may help prevent bowel cancer. It may also assist in controlling blood glucose levels if you have diabetes.	Wholegrain breads, high fibre white breads ('Wonder White'); Breakfast cereals (e.g. Kellogg's 'Guardian' and muesli); oats, lentils and other legumes, barley, *BARLEYmax, rice, pasta, cracked wheat, cold cooked potato, green bananas, custard apples, peas and corn.

**\*NOTE:** BARLEYmax is a natural 'super grain' which contains twice the dietary fibre of regular grains, four times the resistance starch and has a low GI. This grain has been shown to enhance the health benefits of wholegrains. BARLEYmax can be found in products like breakfast cereals, e.g. Digestive 1st and Protein 1st (available in most supermarkets).

## How much fibre?

Most Australians do not eat enough fibre. The recommended daily intake is a minimum of 25g for women and 30g for men.

Dietary fibre content of some foods					
	Serve size	Fibre (grams)		Serve size	Fibre (grams)
<b>Bread</b>			<b>Nuts &amp; seeds*</b>		
Wholemeal with grains	2 slices	6.2	Almonds*	30g	3.2
White high fibre	2 slices	4.0	Mixed nuts*	30g	2.7
Wholemeal	2 slices	3.8	Peanuts*	30g	2.4
Multigrain	2 slices	2.8	<b>Vegetables</b>		
Dark rye	2slices	4.2	Baked beans	1 cup	13.4
White	2 slices	1.8	Mixed beans (e.g. four bean mix)	1 cup	12.4
<b>Cereals</b>			Brussel sprouts	5 medium	4.9
All bran	¾ cup	13.3	Peas	½ cup	4.4
Muesli, swiss style	½ cup	5	Potato with skin	1 medium	3.9
Weet Bix	2 biscuits	3.6	Broccoli	½ cup	3.0
Rolled oats / porridge	¾ cup cooked	2.9	Carrot	½ cup	3.3
White pasta	1 cup boiled	3.1	<b>Fruit</b>		
Wholemeal pasta	1 cup boiled	8.2	Orange	1 medium	3.9
White rice	1 cup boiled	1.6	Apple with skin	1 medium	3.3
Brown rice	1 cup boiled	2.6	Banana	1 medium	3.0
			Sultanas	30g	1.7

\*High fat – limit these if you are trying to lose weight  
 Figures from <http://calorieking.com.au>, as at 1<sup>st</sup> May 2017

### Other important tips for bowel health:

- > Cooked, frozen and canned fruits and vegetables are valuable sources of fibre. Cooking foods containing fibre only softens the fibre.
- > Drink an adequate amount of fluid, preferably water. Aim for 6-8 glasses a day.
- > Gradually increase your fibre intake and distribute evenly over the day as increasing fibre intake suddenly may lead to gastrointestinal discomfort e.g. flatulence.
- > Include regular exercise and maintain a healthy weight.

## Tips on how to increase your fibre intake

Eating a variety of plant foods will help you eat enough fibre over the day.

- > Switch to wholemeal or wholegrain and/ or high fibre breads, cereals (including flour, pasta, breakfast cereals, rice, oats, barley, quinoa)
- > Replace meat with legumes (lentils, kidney beans, chickpeas, split peas) and add extra vegetables in casseroles, soups and stews. Include grated vegetables and cracked wheat to homemade rissoles or hamburger patties, cakes, muffins and scones.
- > Use rolled oats ('quick cook') to bind rissoles or meat loaf. Use processed oat bran or mashed beans as a thickener in soups or casseroles.
- > Eat whole fruits rather than drink the juice, as there is no fibre in fruit juice. Aim for 2 serves of fruit (1 serve = 1 medium fruit) and 5 serves of vegetables a day (1 serve = ½ cup cooked vegetables or 1 cup salad vegetables). Eat the skin of fruit and vegetables where possible and leave skin on potatoes.
- > Snack on nuts and seeds and add a sprinkle of psyllium husks or bran to breakfast cereal or yoghurt.

**\*\*When reading food labels, aim for more than 3g of fibre per serve**

### References:

NH&MRC Australian Dietary Guidelines 2013.

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Better Health Channel 2016, *Fibre in Food*, viewed 1<sup>st</sup> June 2016,

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Calorie King 2017, *Search Australia's best food database*, viewed 1<sup>st</sup> May 2017, <http://www.calorieking.com.au/>

Cancer Council Australia 2013, *Position statement - Fibre, wholegrain cereals and cancer*, viewed 2 June 2016,

[http://wiki.cancer.org.au/policy/Position\\_statement\\_-\\_Fibre,\\_wholegrain\\_cereals\\_and\\_cancer](http://wiki.cancer.org.au/policy/Position_statement_-_Fibre,_wholegrain_cereals_and_cancer)

Dietitians Association of Australia 2016, *Fibre*, viewed 1<sup>st</sup> June 2016, <http://daa.asn.au/for-the-public/smart-eating-for-you/nutrition-a-z/fibre/>

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<http://www.nutritinaustralia.org/national/resource/fibre>

**Acknowledgements:** CALHN, SALHN, NALHN Dietitians.

The information contained within the publication does not constitute medical advice, and is for general information only. Readers should always seek independent, professional advice where appropriate.

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## For more information

### CALHN Diabetes Education Service

Royal Adelaide Hospital  
North Tce

ADELAIDE SA 5000

Telephone: (08) 8222 5111

[www.sahealth.sa.gov.au](http://www.sahealth.sa.gov.au)

The Queen Elizabeth Hospital  
8 Woodville Rd

WOODVILLE SA 5011

Telephone: (08) 82226771

Current from 2017	Next review 2020
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