

Dietary fibre and cancer prevention.

Dietary fibre is the part of plant foods, such as vegetables, fruits, wholegrains, legumes, nuts and seeds, that cannot be digested in the stomach or small intestine. Instead, it passes relatively unchanged into the large intestine where it is fermented by friendly bacteria.

There are three different types of fibre, all of which play a different role in our bodies.

Insoluble fibre

Insoluble fibre is the hard and rough type, which is found in outer skins and surfaces of wholegrains, vegetables, fruits, nuts and seeds. It adds bulk to the contents in our digestive system, which helps to keep our bowels regular.

Soluble fibre

Soluble fibre is the soft and sticky type, which is found in the flesh of fruits and vegetables, as well as oats, dried beans and lentils. It forms a thick gel in our intestines which slows our digestion and helps to bind substances like glucose and lipids. In turn, this can help to control our blood glucose levels and lower our LDL (unhealthy) cholesterol.

Resistant starch

Unlike most starch, resistant starch remains undigested until it reaches the large intestine. When it arrives here, it is fermented by friendly bacteria. This process produces gasses and is great for keeping the lining of the bowel healthy. We can find resistant starch in oats and legumes, as well as rice and potatoes which have been cooked and then cooled.



How is it linked to cancer?

Dietary fibre is not only great for our digestive health, but it also assists in the prevention of diseases such as diabetes, heart disease and bowel cancer.¹⁻³

Fibre helps to reduce cancer risk in four ways³:

1. Binds carcinogens to the stool and expels them from the body.
2. Good bacteria in the colon convert fibre into short-chain fatty acids. Short-chain fatty acids reduce the ability of cells in the intestine to become cancerous.

3. By helping us to feel fuller for longer, fibre plays a key role in maintaining a healthy weight.
4. Reducing absorption of carbohydrates into the blood reduces insulin resistance, therefore reducing risk of diabetes and some cancers.

How much should we have?

Recommended fibre intakes for adults⁴

Men	30g (per day)
Women	25g (per day)

Achieving this is easier than you think!

 <p>9g</p> <p>½ cup of cooked oats with 1 banana and a small handful (30g) of walnuts</p>	 <p>5g</p> <p>1 cup of carrot sticks with 2 tablespoons of hummus</p>	 <p>6g</p> <p>Salad sandwich with wholemeal bread</p>	 <p>4g</p> <p>1 cup of berries</p>	 <p>7g</p> <p>1 cup of wholemeal pasta and 1½ cups of cooked vegetables</p>
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Remember, when increasing your fibre intake make sure to drink plenty of water. Eating enough fibre but not drinking enough water can cause constipation.

References: 1. Hartley, L, May, MD, Loveman, E, Colquitt, JL, Rees, K. Dietary fibre for the primary prevention of cardiovascular disease. *Cochrane Database Syst Rev* [Internet]. 7 January 2016 [cited 19 February 2018]; 1. Doi: 10.1002/14651858.CD011472.pub2. 2. Kuijsten, A, Aune, D, Matthias, B et al. Dietary fibre and incidence of type 2 diabetes in eight European countries: The EPIC-InterAct study and a meta-analysis of prospective studies. *Diabetologia* [Internet]. 8 August 2014 [cited 19 February 2018]; 58(7): 1394-1408. Doi: 10.1007/s00125-015-3585-9. 3. Borneo R, Len AE. Whole grain cereals: functional components and health benefits. *Food Funct* [Internet]. 2 December 2011 [cited 19 February 2018]; 3(2): 11-119. Doi: 10.1039/C1FO10165J. 4. National Health and Medical Research Council (NHMRC). *Nutrient Reference Values* [Internet]. 2017 [cited 2018 Feb 2]. Available from: <https://www.nrv.gov.au/nutrients>.

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