

**Dietary fibre**, or fibre, is the part of food that cannot be digested by our bodies. Therefore, there is a misconception that fibre is just food remains, while in fact, both water-soluble and water-insoluble fibre, found in different types of food, serve different functions in the body.

### The health benefits of dietary fibre

Intake of adequate amount of foods with a high fibre content helps in the prevention of diseases and chronic body imbalances.

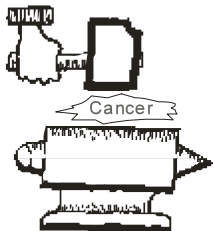


#### Prevention and relief of constipation

Fibre increases the bulk of stool and stimulates motion of the large intestine. It absorbs water, lubricates the large intestine and makes defecation easier.

#### Digestion and absorption

Fibre stimulates the secretion of digestive fluids and the action of “good” bacteria in the intestine, hence, stimulating the formation of vitamin B2.



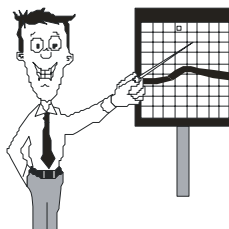
#### Protection against cancer of the large intestine

Fibre prevents the accumulation of cancer-causing (or carcinogenic) materials because it shortens the retention period of waste materials.



#### Weight-control

As fibre absorbs large amount of water, it expands in volume and gives a sensation of fullness. Moreover, more time is required for chewing high-fibre foods, hence less food would be consumed.



**Stabilization of blood sugar level and control of diabetes**  
Fibre can slow down the body’s absorption of sugar.

**Lowering of blood cholesterol level, hence prevention of heart disease**  
Water-soluble fibre combines with cholesterol and then excretes it.

### Foods with a high fibre content

Only foods of plant origin contain fibre.

Examples include:

**Cereals** – wholemeal bread, red rice, oatmeal

**Vegetables** - kale, watercress, spinach

**Root vegetables** – potato, sweet potato

**Beans** – mung bean, kidney bean, black-eye bean, red bean

**Fungi** - straw mushroom, button mushroom, white fungus, black fungus,

**Fruits** - orange, grapefruit, prune

**Others**- sesame, chestnut, cashew nut, peanut

### Daily fibre requirement

Daily requirement(g)	
Adolescence and Adults	25g or above
Children	Age + 5g e.g. an 6-year-old child would need 6 + 5 = 11g dietary fibre per day

Source: Central Health Education Unit of Department of Health

### Essential facts

- There is no fibre in fish, meat, shrimps, eggs and milk.
- Obtain fibre from food rather than fibre tablets, powder or other supplements.
- Consume different types of fibre-rich foods because fibre from different food serve different functions.
- Increase fibre intake gradually to avoid gastrointestinal upset from sudden intake of large amounts of fibre.
- Too much fibre would lead to malnutrition and decreased absorption of minerals.
- Take fruits and vegetables together with the skin, like unpeeled plums, grapes.
- Fresh fruit is better than fruit juice because most of the fibre in fruit is damaged when it is squeezed to make juice.
- Fibre absorbs a lot of water. For fibre to function effectively, a daily intake of 6-8 glasses of fluid is required.
- Although fibre is important to health, we should not neglect other food types. A balanced diet and regular exercise are of utmost importance to good health.

## Fibre content in different types of food

Food type and amount		<u>fibre content</u>
		(g)
<b><u>Cereals</u></b>		
White rice (uncooked)	100g	0.6
White rice (cooked)	100g	0.2
Brown rice (uncooked)	100g	3.4
Brown rice (cooked)	100g	1.8
Wholemeal bread	100g	6.8
Wholemeal cereals	100g	11.7
Cornflakes	100g	3.6
Oatmeal (uncooked)	100g	10.1
Oatmeal (cooked)	100g	1.7
<b><u>Fruits/dried fruits</u></b>		
Apple (with skin)	100g	2.4
Orange (peeled and seedless)	100g	2.4
Banana (peeled)	100g	2.6
Dried prune	100g	7.1
Raisin (seedless)	100g	3.7
Fig	100g	2.9
Dates (seedless)	100g	6.7
Dried Apricot	100g	7.7
<b><u>Vegetables</u></b>		
Broccoli (cooked)	100g	3.3
Kale (cooked)	100g	2
Watercress (raw)	100g	1.2
Lettuce (raw)	100g	1.5
Onion (raw)	100g	1.7
Tomato (raw)	100g	1.2
Carrot (cooked)	100g	3
Corn (cooked)	100g	2.4
Green pea (cooked)	100g	5.5
Potatoes (baked, with skin)	100g	2.2
Sweet potato (baked, with skin)	100g	3.3

Food type and amount		<u>fibre content</u>
		(g)
<b><u>Dried beans</u></b>		
Black-eye bean (cooked)	100g	6.5
Soya bean (cooked)	100g	6
Red bean (cooked)	100g	7.3
Mung bean (cooked)	100g	7.6
Kidney bean (cooked)	100g	6.4
<b><u>Others</u></b>		
Cashew nut	100g	3.3
Peanut	100g	8.5
Sesame	100g	11.8
Chestnut (peeled)	100g	1.2

### An example of a high-fibre diet

Meal	Food type and amount	<u>fibre content</u> (g)
Breakfast	low-fat milk, 1 glass (240ml)	0
	wholemeal bread, 2 slices (56g)	3.8
	egg, 1 piece (50g)	0
Morning snack	raisins, $\frac{1}{3}$ cup (49g)	1.8
	wholemeal crackers, 3 pieces (24g)	1.9
Lunch	brown rice, 1 bowl (195g)	3.5
	steamed fish (120g)	0
	broccoli (cooked), $\frac{1}{2}$ bowl (90g)	3.0
	banana, 1 piece (118g)	3
Afternoon snack	boiled corn, $\frac{1}{2}$ bowl (82g)	2.0
Dinner	brown rice, 1 bowl (195g)	3.5
	kale (cooked), $\frac{1}{2}$ bowl (65g)	1.3
	meat or chicken (120g)	0
	orange, 1 piece (131g)	3.1
		26.9

References :  
Nutrient Information Inquiry System, Centre for food safety

# DIETARY FIBRE AND YOUR BODY



Student Health Service  
Department of Health  
[www.studenthealth.gov.hk](http://www.studenthealth.gov.hk)