

## 2016 Section B Q1

1. **Current intakes of dietary fibre are generally inadequate in adults, with over 80% not meeting the European Food Safety Authority (EFSA) recommendation of 25-30 grams per day.** *(National Adult Nutrition Survey, 2011)*

The chart below provides information on the contribution of different foods to dietary fibre intake in Ireland for adults aged 18-64 years and those over 65 years.

Foods	18 - 64 years		≥ 65 years	
	%	grams	%	grams
Bread and rolls	26	4.8	29	5.4
Vegetables and vegetable dishes	17	3.3	18	3.2
Potatoes and potato products	13	2.2	12	2.0
Fruit and fruit juices	10	2.1	15	3.1
Breakfast cereals	9	2.0	10	2.1
Others	25	4.8	16	3.2
<b>Total</b>	<b>100</b>	<b>19.2</b>	<b>100</b>	<b>19.0</b>

**(a) Using the information provided in the chart, comment and elaborate on the contribution of four foods to the intake of dietary fibre with reference to the two categories of people identified above.**

Potatoes: account for 13% of fibre intake in the 18-64 year age group and 12% in the over 65 age group. Potatoes are a good source of easily digestible fibre which is very important for older people and invalids. They have a huge amount of fibre in the skin and this fibre plays an essential role in preventing bowel problems such as constipation. Potatoes are a very versatile food e.g. they can be boiled, baked, mashed etc.

Breakfast Cereals: these account for the lowest contribution of fibre to the diet in both groups at 9% in the 18-64 category and 10% in the over 65 category. This could be due to the low fibre content and high sugar content of many breakfast cereals. People tend to opt for porridge or oats for breakfast

nowadays as it provides enough fibre with a steady release of energy. Breakfast cereals are convenient for the 18-64 age group who may have busy lifestyles.

Fruit Juices: this accounts for 2.1g of fibre in the 18-64 category and 3.1g in the over 65 category. Juicing fruit has become very popular and many juicers juice the skin which ensures maximum fibre content. These juices are an excellent source of fibre and they are a good option for older people or invalids who may have trouble digesting food. They are a good fibre option for the younger age group who may have a busy lifestyle.

Bread and rolls: this group makes up the bulk of the fibre content for both age groups. Bread and rolls have a high satiety value which helps people to feel full for a long time. Brown bread in particular has a very high fibre content which is needed for good bowel health and to prevent constipation. The consumption of these high fibre foods can help to prevent gastrointestinal diseases and ensure a slow, steady release of energy.

**(b) Suggest three strategies to increase the intake of dietary fibre in order to meet the European Food Safety Authority (EFSA) recommendation.**

Rice: Change normal white rice to brown or whole meal rice. This increases the fibre content and ensures a steadier release of energy.

Seeds: aims to get 2 tablespoons of seeds a day e.g. pumpkin or linseeds. These can be added to breakfast cereals or smoothies.

Vegetables: increase vegetable intake, especially vegetables with the skin on as the skin contains the most cellulose.

**(c) Evaluate the benefits of a diet rich in fibre.**

Fibre encourages peristalsis. Peristalsis is the muscular contraction of the alimentary canal. This ensures that the food moves through the body in a timely manner which prevents constipation.

Fibre lowers the amount of LDLs in the body. This helps to remove cholesterol from the blood which prevents CHD

Fibre absorbs water which helps to give a feeling of fullness. This means that people will eat less and stay full for longer. This helps a person to maintain a healthy weight.

**(d) Name and give an account of one bowel disease. Refer to symptoms / effects.**

Name: Constipation

Symptoms: stools become hard and difficult to expel. This can cause infrequent bowel movements and stomach cramps

Causes: Lack of fibre and insufficient water intake

**(e) Evening work, night shifts and rotating work schedules can have a negative effect on normal meal patterns. Suggest how individuals who have an irregular work schedule can manage to achieve a healthy balanced lifestyle and good dietary practices.**

Healthy Balanced Lifestyle

Ensure meal times are kept as regular as possible throughout the night shifts. Try to eat small meals every 3-4 hours to provide enough energy.

People who have rotating work schedules should take a Vitamin D supplement or eat foods high in Vitamin D e.g. oily fish, milk. These people may not have enough sun exposure to make their own Vitamin D so it is important that they get their RI in some way.

Good Dietary Practices

Avoid quick solutions e.g. Pot Noodles. These are high in salt, MSG and they do not provide the body with many nutrients. By preparing a homemade pasta salad, you can ensure that you are getting enough vitamins and minerals from the meal by adding lots of fresh fruit and vegetables.

Avoid fizzy and sugary drinks that give a quick supply of energy which is then followed by a slump. Water is a much better alternative. It is easy to sip on throughout the shift and keep you hydrated and energised.

Have well balanced meals full of fibre. This ensures a slow, steady release of energy and avoids a slump. This is important for someone who works long shifts. Meals like these include pasta salads, brown bread sandwiches and dinner leftovers from the night before.