

## Dietary needs: Teenagers

Teenagers are growing faster than at any other life stage and so their nutritional needs are high. Adolescents also tend to be more active than in later life.

Protein is needed for this time of rapid growth, repair and maintenance of body tissues.

Energy requirements increase due to increased growth and levels of activity.

Iron is really important for teenage girls who have started their periods and need iron to prevent anaemia. Boys also need iron for their fast rate of growth.

Calcium and vitamin D are essential for this time of rapid bone growth.

### TO DO

- Use the data from the table to write a report to show how the needs for protein, vitamin A, thiamin, vitamin C, calcium, iron and zinc change during teenage years.
- Suggest some important foods that can be part of the diet to make sure that teenagers have sufficient amounts of these nutrients.

Recommended Nutrient Intake (RNI) for males and females of different age groups

Age	Protein g	Vit A ug	Thiamin mg	Vit C mg	Calcium mg	Iron mg	Zinc mg
<b>Male</b>							
7–10 years	28.3	500	0.7	30	550	8.7	7
11–14 years	42.1	600	0.9	35	1000	11.3	9
15–18 years	55.2	700	1.1	40	1000	11.3	9.5
19–49 years	55.5	700	1	40	700	8.7	9.5
<b>Female</b>							
7–10 years	28.3	500	0.7	30	550	8.7	7
11–14 years	41.2	600	0.7	35	800	14.8	9
15–18 years	45.4	600	0.8	40	800	14.8	7
19–49 years	45	600	0.8	40	700	14.8	7

### ACTIVITY

- Design a day's menu for a teenager that will provide a range of the important nutrients that they need to keep healthy.
- Prepare and test a two-course meal that is inexpensive and quick to prepare and also is a good source of calcium and iron. Test this out on a nutritional analysis program.



You can see the changes that are needed for teenagers for the different nutrients.

The diet of teenage girls has been found to be low in iron and calcium. Many teenagers are also drinking excessive amounts of alcohol and smoking.

#### FACT

Forty-five per cent of the skeleton is formed during teenage years.

#### Important nutrients needed by teenagers

Nutrient	Why it is needed	Sources
Plenty of energy from starchy carbohydrates	Growth spurt needs energy, and increase in activities	Bread, pasta, rice, potatoes
Protein	Teenagers are growing fast and need protein for growth and repair of tissues	Meat, fish, eggs, milk, cheese
Calcium	Needed for bone growth and future bone health	Milk, cheese, green vegetables
Vitamin D	Works with calcium in bone formation	Sunlight, margarine
Iron	Needed for healthy blood, and blood is lost when teenage girls start their periods	Meat, green vegetables
Vitamin C	Helps iron absorption	Fruit and vegetables
Thiamin	Needed for energy metabolism	Red meat, liver, milk, fortified breakfast cereals
Zinc	Important for the immune system to help fight diseases and infection, and for male fertility	Meat, dairy products, pulses and wholegrain cereals

#### Anorexia nervosa

People suffering from the eating disorder **anorexia nervosa** – mainly teenage girls – restrict the amount of food they eat. Someone with this disorder becomes obsessed with losing weight and has a distorted view of their own body size. After a time, they become very thin. Sufferers need long-term specialist medical help, and support from family and friends.

#### KEY TERMS

**Anorexia nervosa** an eating disorder where people restrict the amount of food they eat

#### QUESTIONS

1. Give two reasons why some age groups need different amounts of energy.
2. Why do teenage girls need good sources of iron in their diet?
3. Why is calcium an important mineral for teenage boys and girls?