

# Adolescence

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## Introduction

Adolescence is the period of time between the ages of 12 and 19 years the time when a person is no longer a child but not quite yet an adult.

Until this time a young person has been cared for by adults and has had little responsibility or independence.

A young person begins to have a whole new outlook on life. He or she will want to become less dependent on his or her parents

Parents want their children to grow into responsible, caring adults. They begin to encourage their children to take more responsibility for their lives and become more independent. Parents will still want their children to feel secure and loved throughout this time of great change.

Adolescence is a time of rapid growth and activity. It is concerned with changes. The body of an adolescent goes through many changes. These gradual changes transform the body of a child into the body of an adult. The changes prepare the body for having children one day. Sometimes the bodily changes can cause worry and anxiety to the young adolescent. It is important for a young person to accept these changes and look after his or her body. A young person can do this drinking plenty of water, taking exercise, getting enough sleep and forming good personal hygiene habits

With so many changes taking place it is important, above all, for the adolescent to eat a good balanced diet

## Influences on Eating Habits in Adolescence

Eating healthily is important to proper development of the bones, muscles, body cells, blood cells, reactions etc.

Unfortunately many surveys have shown that the eating habits of Irish and British teenagers closely resemble those of their America counterparts

It has been reported that the eating patterns of teenagers in this part of the world tend toward snacks which are high in sugar, high in salt, high in fat and low in fibre or NSP, much like teenagers in America.

Adolescents often miss breakfast, which causes the blood sugar levels to drop and the result is poor concentration and low energy levels. Adolescents often do not leave enough time for breakfast. They are constantly 'on the go'.

Adolescents are influenced a lot by their own age group and want to be like them. They do not seem to want to be too different from the 'rest of the crowd'. Adolescents are also influenced by the advertisements on television, radio or in magazines.

Advertising has an enormous influence over everyone. It can persuade us that certain products, be they food, clothes, cars are desirable to have and that everyone must have them! The purpose of advertising is solely to make money for the manufacturer.  
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Many advertisements for food and drink are aimed at young people. Like everything else food has fashions and fads also. Burgers, pizzas, milk shakes seem to be aimed at a younger market. The power of advertising and peer influence could well explain the reason why adolescents seem to choose these foods in school canteens rather than a meal, which contains meat potatoes and 2 vegetables.

The influence of the peer group and advertisements in relation to eating habits of adolescents could well result in disorders such as coronary heart disease gall stones, diabetes, and strokes which could become apparent when adolescents are in the forties, perhaps younger!

## Effects of Poor Nutrition on the Health of an Adolescent

### Anaemia

Adolescents sometimes suffer from anaemia. Anaemia is a condition in which there is a lack of haemoglobin in the red cells of the blood. Haemoglobin is important as it transports oxygen and nutrients to each cell in the body.

The nutrients brought by haemoglobin nourish each cell. The oxygen brought by haemoglobin help 'awaken' each cell and give it energy. If there is very little haemoglobin in the red cells of the blood, oxygen and nutrients cannot be transported to the cells efficiently.

When adolescents are low in Iron they have very little strength, are extremely tired, and cannot concentrate. They may also look very pale. Eating foods, which contain Iron, can treat anaemia.

Foods, which contain Iron, include:

Egg yolk, red meat, green vegetables, baked beans and sardines. Some foods have Iron added to them e.g. flour and white bread.

Iron will work better in the body if it is taken with another nutrient called Vitamin C.

Vitamin C can be described as a 'key' which 'unlocks' the blood stream to allow Iron to enter it and do the job it needs to do. A person suffering from anaemia should also eat foods, which contain Vitamin C.

Foods, which contain Vitamin C, include:

Blackcurrants, broccoli, strawberries, raspberries, cabbage tomatoes.

An adolescent suffering from anaemia will benefit from eating foods containing both Iron and Vitamin C in the one meal.

### Skin problems

Adolescents often suffer from acne or other skin problems eg spots. Part of the problem is due to the hormones, which the body produces at puberty. This usually settles down as the adolescent body adjusts to the changes taking place. However, many of the skin problems experienced at adolescence are due to poor nutrition.

Fatty and spicy foods can contribute to the production of oils, which become trapped in the pores and form spots and pimples. Chocolate, a favourite snack with adolescents is also believed to contribute to skin problems due to the high fat content.

Skin problems can be embarrassing for the adolescent. He or she can do much to relieve these problems by being careful about what they eat. A diet, which contains plenty of water and fresh fruit and vegetables, should help relieve these problems and keep the skin clear.

## **Obesity**

Many surveys have shown that the eating patterns of teenagers in this part of the world tend towards snacks, which are high in sugar, salt and in particular, fat. This is quite worrying. Adolescents should be concerned about their eating habits in order to prevent becoming overweight. Weight gain is caused by eating more food than the body needs. It does not mean an adolescent is eating more than other people are. It means they need less food.

Adolescents need to be aware of the dangers of excessive weight gain. Excessive weight gain is known as Obesity. Obesity can cause both health and emotional problems. It may cause an adolescent to become emotionally upset, which could lead to comfort eating. Obesity causes strain to be put on the heart and circulation. This causes high blood pressure and the risk of coronary heart disease in later life. Obesity also increases the risk of diabetes, arthritis, and varicose veins.

People who are obese are more likely to have problems during surgery or even childbirth. Anyone can be affected by this problem. It is important for adolescents to adopt good eating habits at this stage in life if they are to enjoy a healthy adulthood and old age.

## **Anorexia Nervosa**

Excessive weight loss is as worrying and as life threatening as excessive weight gain. Unfortunately, a condition known as Anorexia Nervosa is very common among adolescent girls, although teenage boys and adults can also be affected.

Anorexia Nervosa is a psychological problem. It can be triggered by a traumatic event such as an accident, a death in the family, divorce etc. Anorexia Nervosa causes a person to have wrong image about the size and shape of their bodies. The person eats very little, loses out on important nutrients, becomes very underweight and prone to infections

Television, magazines and the peer group can influence adolescent girls. Everywhere there are pictures of models who are extremely thin and who are considered to be beautiful. This can have an effect on the mind of an impressionable adolescent and they strive to have what some people consider to be the perfect body. Anorexia Nervosa if not treated, by counselling, can cause death.

## **Bulimia Nervosa**

Bulimia Nervosa is another serious eating disorder. It is very common in adolescence although adults can also be affected. Like Anorexia Nervosa it can be triggered by a traumatic event. It causes the affected person to have a wrong image about the shape of their bodies. However, instead of starving himself or herself, a person suffering from Bulimia Nervosa will eat continually and then make themselves vomit to get rid of the food. They may also use laxatives to make them go to the toilet, therefore getting rid of the food. Continuous purging of food causes the linings of the gullet, stomach, intestines and bowel to become irritated and damaged. Like an anorexic, a bulimic will deprive himself or herself of important nutrients, become unhealthy, and prone to infections. If not treated, by counselling, Bulimia Nervosa can cause death due to malnutrition

## **Tooth Decay and Gum disease**

It is a common trend among adolescents to eat snacks, which are very high in sugar. School canteens and tuck shops may be full of tempting sugary snacks, biscuits and chocolate. It is not surprising, therefore that many adolescents have teeth and gum problems. Eating sugary foods is the major cause of decayed and painful teeth.

The acids from sugary foods remain in the mouth for about 30 minutes after eating. The acid then damages the hard enamel on the surface of the tooth. This gradually leads to a hole or cavity forming in the tooth. The longer the acid stays in the mouth, the more time it has to attack the teeth. If sugary foods are ate regularly between meals the acid has more time to start the process of decay.

Gum disease affects the gum and the bone and tissue around the teeth. A build up of a sticky substance called plaque attacks the teeth and the areas around the teeth and gums. The gums bleed easily. The gums also shrink back from the tooth causing it to be come loose and fall out.

In order to avoid these disorders adolescents should form good dietary habits. This involves avoiding sugary snacks between meals, eating plenty of fruit and vegetables, including foods, which contain the nutrients Fluoride, Vitamin D and Calcium. A good dental care routine, which involves regular brushing, flossing and visits to the dentist reduces the risk of these problems.

## **Digestive Disorders**

Digestive disorders include appendicitis, bowel cancer, constipation and diverticulitis and haemorrhoids. These problems are very common throughout Europe and the Western World. These are caused by a lack of fibre or NSP in the diet.

Fibre or NSP is found only in plant foods. It is plentiful on the skins and flesh of vegetables and fruit as well as in cereals and pulses and wholemeal bread. Surveys have shown that many teenagers do not eat enough foods containing fibre or NSP. They seem to prefer sugary, fatty and salty foods and white bread.

Fibre or NSP is valuable in that it helps to move digested food quickly through the intestines, therefore preventing digestive disorders. Fibre or NSP helps to remove chemicals form the body before they can cause much harm. Many doctors believe that this action prevents cancer of the bowel.

If adolescents avoid foods containing fibre or NSP they risk suffering from constipation. Constipation is a painful condition, which makes it difficult to get rid of digested waste food. The digested food moves very slowly through the intestines. This can allow time for harmful chemicals to develop perhaps causing bowel cancer.

Regular bouts of constipation cause parts of the bowel lining to push through the bowel walls. This helps to form pockets called diverticuli, which can cause great pain. Blood vessels in the rectum may also become swollen and painful as a result of straining to get rid of waste food. This condition is known as haemorrhoids or piles.

Adolescents put themselves at risk from any of these conditions by avoiding food, which contain fibre or NSP. A very common digestive disorder is appendicitis, which can be caused by a diet lacking in fibre or NSP.

Appendicitis is an inflammation of the appendix. The appendix is a small pocket of flesh in the area where the small intestine and bowel meet. It is believed that if more foods containing fibre or NSP were included in the diet, waste food would move more quickly through the intestines and not get trapped in the appendix. Appendicitis is a very common digestive disorder, which requires surgery. Adolescents could reduce the risk of this if they included more fibre or NSP in their diets.

## Nutritional Needs of an Adolescent

An adolescent requires the following nutrients in his or her diet

- **Protein**                    to make all body cells grow  
                                      to replace worn out body cells
- **Fibre**                        to prevent constipation and digestive disorders eg bowel  
                                      cancer and diverticulitis and appendicitis
- **Carbohydrate**            to give the body energy
- **Fat**                            to keep the body warm  
                                      to provide vitamins A D E and K  
                                      to insulate and protect the vital organs
- **Calcium**                    to increase bone thickness  
                                      to strengthen the bones and the teeth (with the help of  
                                      Vitamin D),  
                                      the bones of an adolescent can absorb more calcium than at any  
                                      other age
- **Vitamin D**                 to help the body take in the nutrient Calcium  
                                      to strengthen the bones and teeth
- **Fluoride**                    to strengthen the bones and teeth
- **Iron**                         to help the body make haemoglobin and prevent anaemia  
                                      (with the help of Vitamin C)  
                                      to replace monthly blood loss in girls
- **Vitamin C**                 to help the body take in the nutrient Iron  
                                      to prevent infections  
                                      to keep skin and gums healthy  
                                      to help heal cuts and bruises
- **Vitamin B**                 to help release energy from food  
                                      to keep the nervous system healthy
- **Vitamin A**                 to promote growth  
                                      to keep skin and lining membranes ( nose and throat) healthy

## Planning Meals for Adolescents

A perfect diet for an adolescent is one, which meets with all the nutritional requirements. Adolescent's bodies are growing and developing rapidly.

Adolescents usually need to eat more food than any other group because they are still growing and are very active. Adolescents usually have large appetites. This is a sign that their bodies need extra food for the period of rapid growth and development which takes place between the ages of 12 and 19 years.

It is important for adolescents to have a proper balance of nutrients. This means 3 well-balanced meals every day. This does not always happen!

- **Protein**

The growth spurt means that foods, which contain protein, should be eaten in fair amounts. Foods containing protein include any foods, which come from an animal. Protein can also be found in plant foods such as cereals, pulse vegetables eg beans peas and lentils

- **Carbohydrate and Vitamin B**

Carbohydrate is the nutrient, which gives the body energy. Adolescents use up a lot of energy and should include carbohydrate foods in their diet. They should try to avoid sugary carbohydrates such as cakes biscuits etc. Sugary carbohydrates only give short-term energy. Instead, starchy carbohydrates should be used. Starchy carbohydrates are found in foods such as rice, pasta, bread and potatoes. These carbohydrates provide longer-term energy and more fibre!

Vitamin B is important for reactions to outside stimuli, and for release of energy from food. It is found in foods such as wholemeal bread and cereals

- **Fat and Vitamin A**

Adolescents should try to avoid too much saturated (animal) fat to help keep cholesterol levels normal and reduce obesity and heart disease in later life  
Lean red meat, chicken, white fish, low fat cheese and semi-skimmed milk are examples of lower fat alternatives.

Vitamin A is found in many animal foods. It is also found in orange or yellow coloured fruit and vegetables. Vitamin A helps to protect night vision and lubricates the skin, tissues and lining membranes

- **Fruit and Vegetables**

A diet, which contains fruit and vegetables, is essential at any stage of the life cycle. Eating a variety of fruit and vegetables will ensure that the adolescent gets Vitamins A and C as well as Calcium, Iron, and Fibre. It will also mean that an adolescent will have fewer problems with the skin and fewer infections.

- **Fibre or NSP**

Foods containing fibre or NSP should be increased, as digestive disorders are common. A diet, which includes wholemeal bread, cereals and fruit and vegetables, will ensure that an adolescent obtains enough fibre to avoid digestive disorders, such as bowel cancer, diverticulitis and appendicitis.

- **Sugary Foods**

Adolescents seem to snack on many sugary foods. They should avoid too many sugary foods such as chocolate, cakes biscuits etc to avoid gum disease and dental decay and to help them keep their own teeth for later in life.

- **Salty Foods**

Adolescents should be encouraged to avoid eating too much salt with their food. They should avoid too many crisps, and salty snacks such as salted peanuts. Too much salt over a period of years helps to reduce the elasticity of the arteries. This causes them to become hard and thickened. High blood pressure can result and strokes and heart attacks can occur.

- **Calcium and Vitamin D and Fluoride**

It is very important to include foods, which contain these important nutrients, in the diet of an adolescent. These nutrients are responsible for thickening and maintaining the strength of the bones and teeth. The bones of an adolescent can absorb more calcium and Vitamin D and fluoride than any other age group. This means that they can make their bones as strong as possible before the bones reduce in strength after the age of 35.

Calcium is found in green vegetables and in dairy products and some seafood. Vitamin D is also found in dairy products and some seafood. Exposure to daylight encourages the body to manufacture Vitamin D. Fluoride is found in water, tea and seafood.

- **Iron and Vitamin C**

Iron is important in making haemoglobin, the substance which gives blood its red colour. With the help of Vitamin C it helps prevent anaemia. Anaemia is a condition which commonly affects teenage girls due to blood loss during menstruation. It can cause paleness, tiredness and poor concentration. Iron can be found in red meat, green vegetables and cereal products. Iron works with Vitamin C to prevent anaemia.

Vitamin C is contained in red or purple coloured fruit, citrus fruit and green vegetables. Vitamin C helps prevent skin blemishes, bruising and infections.

# Suggested Activities

## Effects of Poor Nutrition on the Health of an Adolescent

What condition is the character describing?

### Effects of Poor Nutrition on the Health of an Adolescent

Situations	Correct answers
<p>My friend Mark was in hospital last week He had a pain in his side and was rushed in for an operation. The doctor said he was very lucky as it could have got much worse. Scary. Turns out that he could have avoided the whole thing if he ate enough fruit and vegetables and wholemeal bread</p>	
<p>My sister was feeling tired all the time. She was really pale in the face; she looked like a ghost! The teachers were complaining about her not concentrating in school. My mum brought her to the doctor. The doctor gave her medicine and told her to eat plenty of good lean red meat and green vegetables and she'd be as right as rain soon!</p>	
<p>Both these conditions are life threatening and are very common our age group. They can be started off by a big upset like an accident. Both of them damage the insides of the body. The body just doesn't get fed properly. Both of these need to be treated by trained counsellors who can help if a person becomes like this.</p>	
<p>We have been told about these conditions since we were very young. But its very hard to resist all the lovely cakes and chocolate biscuits in the tuck shop and canteen! I need to be careful all the same, I don't want to wear dentures when I'm older!</p>	
<p>This is a condition where a person is 20% overweight for their height. It is very dangerous because it can cause other illnesses such as diabetes, gallstones and heart disease. Everyone needs to be careful of this not just us teenagers!</p>	
<p>Fibre helps to prevent this unpleasant and very painful condition. We should eat plenty of fruit and vegetables and wholemeal bread. If we get this too often we are in danger of bowel cancer</p>	
<p>This can be sooo embarrassing for every teenager. It is very hard</p>	

<p>to cut down on all the lovely chocolate and chips and crisps but that's what we are told we have to do if we want to avoid this. Life just isn't fair sometimes. Plenty of fresh fruit and vegetables all the time, it's no fun at all!</p>	
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**Nutritional Needs of Adolescent**

<b>Nutrient needed by the adolescent</b>	<b>What does this do for the adolescent's body</b>	<b>What foods should an adolescent be eating to get this nutrient</b>
<b>Protein</b>		
<b>Carbohydrate</b>		
<b>Iron</b>		
<b>Calcium</b>		
<b>Fluoride</b>		
<b>Vitamin C</b>		
<b>Vitamin D</b>		

## Planning Meals for Adolescents

### Suggested Activity Worksheet

1. An example of a meal containing Iron and Vitamin C is the Bolognese Sauce often served with pasta. Can you explain this ?

Ans

2. Another example of a meal containing Iron and Vitamin C is a breakfast containing a boiled egg, toast and pure orange juice.

Ans

- 3 Why is it recommended to take Vitamin C foods along with Iron-rich foods?

Ans

- 4 List 5 foods rich in Iron

Ans

- 5 Why do teenage girls frequently suffer from anaemia?

Ans

## Influences on Teenage Eating Habits

- Conduct a quick survey of the eating habits of the pupils in your class
- Record the results in the boxes below

Question	No of pupils			No in class
Do you eat breakfast?	Always	Sometimes	Never	
Do you take sugary drinks crisps, sweets, chocolate etc	Every day	Most days	Rarely	
Do you eat three or four main meals every day?	No	Sometimes	Yes	
Do you eat chips?	Every day	Most days	Less than 3 times a week	
Do you eat 5 portions of fruit and vegetables every day	Yes	Never	Sometimes	

## Results of the Survey on Eating Habits in My Class

What percentage of pupils never eat breakfast? \_\_\_\_\_

What percentage of pupils eats breakfast every day \_\_\_\_\_

What percentage of pupils eat sweets crisps etc every day? \_\_\_\_\_

What percentage of pupils eat 5 portions of fruit and vegetables daily? \_\_\_\_\_

What percentage of pupils eat chips every day? \_\_\_\_\_

What does this survey tell you about your class's eating habits?

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Give 3 reasons why a teenager may miss breakfast

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How could each of these problems be solved?

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Give 6 examples of healthy snacks which could replace sweets and crisps and sugary drinks

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