

Where do polyunsaturated fats come from?

The richest sources of poly-unsaturated fats are vegetable and seed oils, such as sunflower, soybean, corn and cottonseed oils, and poly-unsaturated margarine spreads made from these oils. Other sources include some nuts (walnuts, pecans) and seeds, oats, wheat germ and rice bran.

The 'bad' fats

Saturated fats and trans fats are the 'bad' fats found in foods as they have been shown to raise blood cholesterol levels and lead to an increased risk of developing heart disease. Too much saturated and trans fats in the diet can also lead to diabetes, some cancers and even obesity. Examples of foods containing high amounts of saturated and trans fats include animal fats like fatty meats, chicken skin, butter, cream, ice cream, full-cream dairy foods and also the fats found in biscuits, pastries, cakes, coconut milk and palm oils. These 'bad' fats are generally solid at room temperature.

**Did You Know**

How much saturated fat should we limit ourselves to each day?

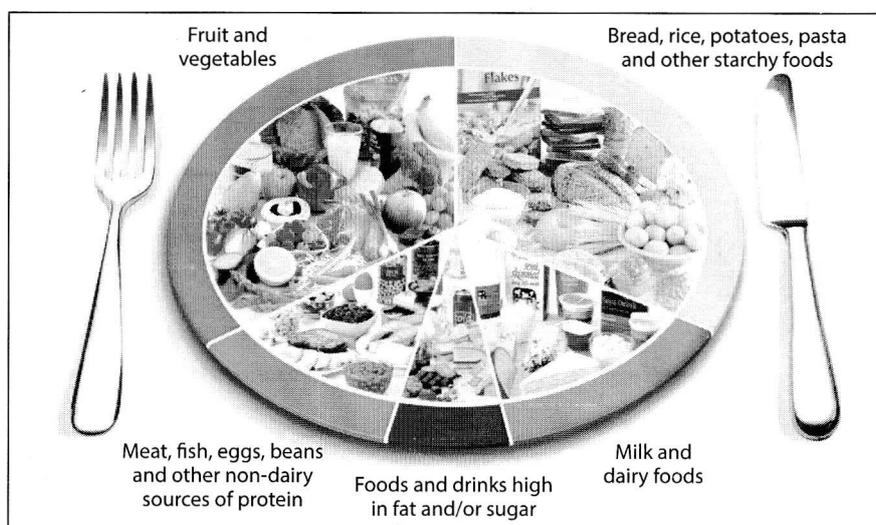
Less than 20 g of saturated fat per day

Functions of fats and oils

- An excellent energy source
- Protect vital organs of the body e.g. kidneys
- Form an insulating layer beneath the skin to help preserve the body heat
- Provide a source of fat soluble vitamins because it acts as a vehicle for the fat soluble vitamins A, D, E and K
- Provide texture and flavour in food and help to make food more palatable
- Linoleic acid (a fatty acid) is found mostly in vegetable fats and it is essential for the normal growth in young children.

**Activity 1**

1. Draw up a balanced menu for one day using the correct daily requirements of each of the basic food groups as shown below.



2. Motivate why it is important to include the five basic food groups in your diet on a daily basis.
3. What would the consequences be of not including certain food groups in your diet?

4. Make a poster/collage showing the food sources of the five basic food groups and add the portions required in the diet.
5. Write down everything you ate yesterday including snacks. Analyse your food intake as follows:
 - 5.1 Write out the food you ate into breakfast lunch and dinner. Add the snacks with each if eaten close to that time.
 - 5.2 Which food groups were included and which were excluded from your food intake of yesterday.
 - 5.3 Evaluate the portions you ate compared to the required amounts.
 - 5.4 Rewrite the menu and add foods that were omitted in red pen to show a more balanced menu.
6. Draw a table with the five basic food groups as heading and place food sources under each. Tabulate as follows:

Protein and meat	Calcium and milk	Fruit and vegetables	Breads and cereals	Fats and oils

7. List the functions in the body of each of the following nutrients:
 - 7.1 Proteins
 - 7.2 Calcium
 - 7.3 Vitamin C
 - 7.4 Vitamin A
 - 7.5 Fats and oils
8. Explain in a paragraph what 'good' and 'bad' fats are.
9. Draw up a menu for a six-year-old using the five basic food groups in the correct quantities.
10. Evaluate the menu below with regard to the five basic food groups. Motivate your answers.

Menu
Breakfast Coffee and Rusk
Lunch Chopped Salad: Tomato, cucumber, olives, parmesan, croutons, avocado and salad dressing Coffee
Supper Butter chicken (chicken, real butter, tomato puree) Rice Yoghurt salad
Tea