

❖ Diet and Health

Diets rich in lipids

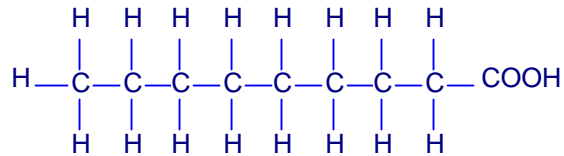
Key facts

- Excess storage of fat causes overweight and possibly obesity (excessive overweight);
- Fatty deposits in arteries (atherosclerosis) narrows vessel increasing blood pressure and stress on heart – leads to coronary heart disease (CHD);
- Atherosclerosis can cause blood clots to form which block arteries causing tissue death and possible amputation;
- Blockage of coronary arteries causes heart attack. Surgery may be required to repair or replace vessels.

Saturated fatty acids

Key points

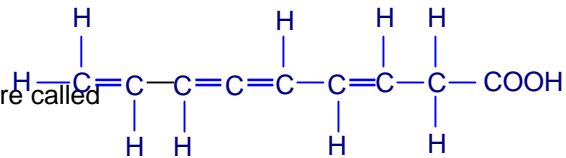
- No double bonds;
- Mainly from animals;
- Converted to cholesterol;
- Higher blood cholesterol levels may lead to CHD;



Unsaturated fatty acids

Key points

- One or more double bonds;
- Molecules with large numbers of double bonds are called polyunsaturated;
- Mainly from plants;
- Some forms of polyunsaturated fatty acids may lower blood cholesterol

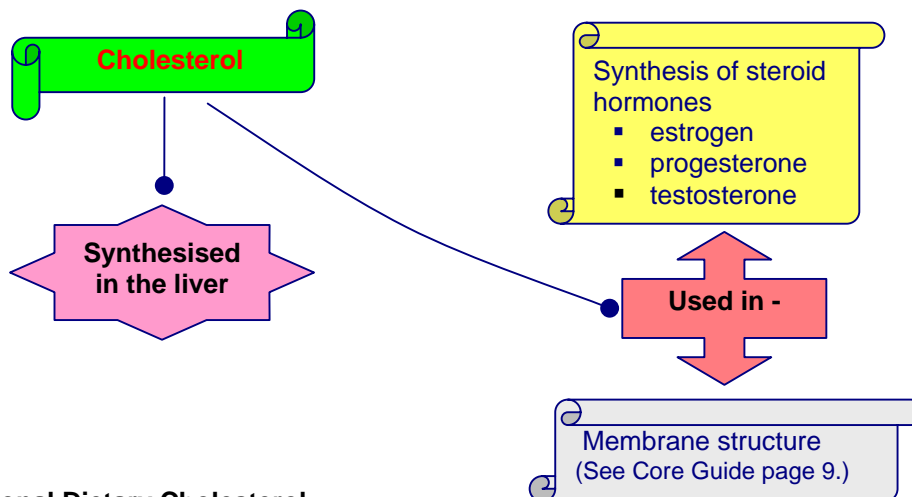


Key point

- Genetic factors alter the effect of levels of saturated and unsaturated fatty acids in the diet.

Cholesterol

The liver synthesises sufficient cholesterol for use in the body.



Additional Dietary Cholesterol

Key points

- Only 25% of blood cholesterol from diet;
- 75% blood cholesterol synthesised by liver;
- Cholesterol in diet has little effect on level of cholesterol in blood;
- Dietary saturated fatty acids increase blood cholesterol.