Australian Oilseed Federation

Nutrition Fact Sheets

No. 1 June 2004

Why Fat is Essential to Good Health

Despite the fashion for low-fat diets, some fat is vital to good health and is required for growth and proper development in children.

One or two tablespoons of a good oil, margarine or some nuts, avocado or wheatgerm should be included every day.

Role of fat in the body

Although in healthy eating terms fat is often criticized, it is worth remembering that fat has many important roles in the body:

- Fat is the main energy store in the body and the most concentrated source of fuel in the diet - 1g of fat provides 37kJ (9 kcal), more than double that provided by either protein or carbohydrate (4 kcal).
- Fat cushions and protects vital organs such as our liver and kidneys and helps insulate the body.
- Fat in foods is a carrier for the fat-soluble vitamins A, D, E and K as well as fat-soluble antioxidants such as beta-carotene, and enables them to be absorbed.
- Fat in foods provides the essential fatty acids, linoleic acid (omega-6) and alpha-linolenic acid (omega-3). These form 'building blocks' for the brain, eye and nerve tissues.

Toddlers and young children should not be put on low-fat diets. Fat is a key source of fuel for growing bodies and should not be restricted unless your doctor instructs you.

Essential fatty acids

Two essential fatty acids linoleic acid (which belongs to the omega-6 family) and alpha-linolenic acid (omega-3 family) cannot be made in the body and must be provided by our diet. They are necessary for growth and development and for maintaining health.

Although these two fatty acids cannot be made in the body, they can be elongated and converted to longer chain versions EPA (eicosapentaenoic acid), DHA (docosahexaenoic acid) and arachidonic acid (AA). These longer chain versions provide the building blocks for compounds known as eicosanoids, which are precursors for prostaglandins.

These hormone-like substances are important in the formation of cell membranes and are involved in blood clotting, wound healing and inflammation.

Although the body is able to convert alpha-linolenic acid into the long chain versions, it seems this conversion is quite limited. For that reason we also need direct sources of these long chain omega-3 fats in our diet. The richest source of these omega-3 fatty acids is oily fish.