

Flaxseed: Herbal king of present era

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■ **ABSTRACT** : Flaxseed is one of the oldest known medicinal plants gifted by nature, often called miracle plant. The flaxseed is an herbaceous plant. The flax stem is cylindrical straight and narrow, pointy leaves. The flowers of this medicinal plant growing in the end of the branches, have five petals, light blue and the fruit is a capsule nearly round finished in the top edge. Flaxseeds are used both as food and medicine. Flaxseed a minor oilseed, is highly valued for its nutraceutical properties. Flaxseeds are rich in alpha-linolenic acid (ALA). It is important to maintain a good balance of omega-3 and omega-6 another essential fatty acid in your diet, as these two substances work together to promote health. Flaxseed also contains a group of chemicals called lignans that may help protect the body from cancer. Lignans are phytoestrogens plant compounds that act like the hormone estrogen. Crushed flaxseeds are an excellent natural source of fibre. Some of the health benefits of flaxseed are- helping to protect against cancer, heart disease, cataracts and gallstones, reduces inflammation associated with gout, promotes healthy skin, hair and nails, impotence, menstrual cramps, helps to treat nerve disorders, relieves constipation, gallstones and diverticular disorders. Thus, regular intake of flaxseed in diet is perfect supplement for good health.

■ **KEY WORDS** : Flaxseed, Health benefits, Alpha-linolenic acid, Dietary fibre

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Fax or linseed is among the oldest crop plants cultivated for the purpose of oil and fibre. It belongs to the genus *Linum* and family Linaceae. Its botanical name is *Linum usitatissimum* L. It is an annual herbaceous plant with shallow root system. The common names flax and linseed are used in North America and Asia, respectively, for *L. usitatissimum*. Oilseed varieties and fibre varieties are specialized development of this species (Millam *et al.*, 2005). The cultivars grown primarily for seed/oil purposes are relatively short in height and possess more secondary branches and seed bolls (seed capsule). The cultivars grown for fibre purpose are tall growing with straight culms and have fewer secondary branches. Flaxseed (*Linum usitatissimum*), a minor oilseed is highly valued for its nutraceutical properties such as omega-3 fatty acids which are the substrates for the synthesis of longer chain unsaturated fatty acids which confer important biophysical properties on cell membranes and are required for cell function. Flaxseed is claimed to exhibit protective effects against cardio-vascular diseases. It is also a good source of

macronutrients. Flaxseed is a functional food which helps to improve the ratio of essential fatty acid in diet.

Flaxseed has recently gained attention in the area of cardio-vascular disease primarily because it is the richest known source of alpha-linolenic acid (ALA) and the phytoestrogen, lignans, as well as being a good source of soluble fibre. Human studies have shown that flaxseed can modestly reduce serum total and low-density lipoprotein cholesterol concentrations, reduce postprandial glucose absorption, decrease some markers of inflammation, and raise serum levels of the omega-3 fatty acids, ALA and eicosapentaenoic acid. Data on the antiplatelet, antioxidant, and hypotensive effects of flaxseed, however, are inconclusive. More research is needed to define the role of this functional food in reducing the cardiovascular risk.

Flaxseed helps to reduce cardio-vascular diseases by altering the ω -3 fatty acid content of cell membranes by improving blood lipids and endothelial function and also by exerting antioxidant effects (Bloedon and Szapary, 2004).