

Significance of Nutriceutically Balanced Edible Oil Selection to Avoid Cardiovascular and other Ailments

Misha Yadav*, Smita Tripathi, Deepika Yadav, Nishita Gogia,
Sahil Dhingra, Raviranjana K Gupta and Richa Mittal

Shivaji College, University of Delhi, Delhi – 110027

E-mail: *dr.mishayadav@gmail.com

Abstract—Nutrition is amongst the most important aspects which affect human health and various diseases, so it is important that we choose our diets properly. Dietary fats are essential component of human diets and it is recommended that 15- 30% of diet should consist of fats and oils. Chemically, most edible oils are triacylglycerol having different quantities of diverse array of saturated or unsaturated fatty acids, depending upon the source of oil and the processing method adopted. Other minor components such as oryzanol, tocopherols, tocotrienols and phytosterols might also be present. A balanced consumption of saturated and unsaturated fatty acids leads to healthy serum lipid profiles which help to avoid congenital heart diseases, which form a majority of non-communicable diseases. Lower saturated fat consumption reduces total and low-density lipoprotein cholesterol (LDL-C) which in turn leads to reduced chances of heart diseases. Some research studies also indicate prevalence of other diseases such as breast cancer, colorectal cancer and decreased insulin sensitivity with high saturated fatty acid intake. More intake of trans fats has also been found to be associated with increase in LDL-C and decrease in high density lipoprotein cholesterol (HDL-C). During atherosclerosis, LDL deposits in the sub-endothelial spaces in arteries and upon chemical reactions it forms its modified LDL which may stimulate monocyte and macrophage production. Apoprotein B-100 (part of LDL) attains more negative charge and ultimately foam cells are formed. These foam cells and macrophages become entrapped when more monocytes are diverted to the sub-endothelial space further increases atherosclerosis. Dietary plant sterols help in reduction of serum cholesterol. Antioxidants such as those present in rice bran and olive oil, help control oxidized LDL and offer health benefits. Thus, proper selection of edible oil can help reduce the chances of cardiovascular and other diseases.