**Discussion- Lipids**

Lipids carry mixed effect with health benefits in terms of high energy content and adverse effects such as the effect of saturated fatty acids, and trans fats that pose health risks. Excess fats stored in the adipose tissues are implicated in body weight gain, a predisposing factor to type II diabetes and cardiovascular diseases. There are various types of fats including the low-density lipoproteins (LDLs). LDLs are implicated in the formation of plaques in the interior walls of major arteries, a condition referred as atherosclerosis. Atherosclerosis is a risk factor of stroke and heart attack. Saturated fats are responsible for the increase in LDLs cholesterol in the blood. LDLs are the main carriers of cholesterol in the blood, from the liver to the tissues (Schlenker & Gilbert, 2015).

The saturated fats are primarily sourced from animal fats in foods such as dairy products, eggs, and meat. Fish oils and essential fatty acids that usually contain more double bonds are vital in countering the effect of LDLs by lowering LDLs cholesterol level in the blood. These essential oils and fish oils are collectively referred as polyunsaturated fatty acids. High-density lipoproteins (HDLs) are responsible for the translocation of cholesterol from the cells to hepatic tissues for breakdown and excretion. As the carriers of cholesterol from the tissues to the liver for breakdown, they reverse atherosclerosis, a risk factor to coronary heart disease by preventing the build-up of fatty plaques in the lumen of blood vessels (Schlenker & Gilbert, 2015). Sources of HDLs include olive oils and fatty foods. Although the genetic factors have been attributed in the concentration of LDLs in the blood, reducing intake of animals fats rich in LDLs can have far more positive effects in prevention of cardiovascular conditions such as coronary heart disease. Lowering fat food intake may include reducing the frequency as well the amount of fatty food intake and adopting a diet that has lower fat content. Eliminating intake of fats in prepared meals and substituting foods rich in fats with plant-derived foods may reduce fat intake.

Protein intake in the diet can be provided by meat and dairy products as well as consumption of leguminous plants. These food sources replenish the breakdown of amino acids in the body. Important source of protein should also provide essential amino acids that are not manufactured by the body. Lean meat, eggs, and plant-based protein and eggs, as well as dairy products, provide rich sources of these essential amino acids. Unlike vitamins, proteins are indestructible in cooking and can be overcooked to the desired level.

I have never thought of trying a vegetarian diet since I do not recognize any potential benefits for the vegetarian diet. Avoiding animal fats is not the solutions against cardiovascular diseases since plants proteins may lack some of the essential fats found in the animal diets. The vegetarian diet may reduce fat intakes since it is based on what not to eat rather than exclusively avoiding animal proteins. Thus, it does not offer any benefits that can distinguish a vegetarian from a non-vegetarian (Schlenker & Gilbert, 2015).

**Reference list**

Schlenker, E.D. & Gilbert, J (2015). *Williams’ Essentials of Nutrition and Diet Therapy*. 11th ed. IBSN: 9780323185806