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# Functional Food - A Review

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**Abstract:**

*Functional foods play a significant role in well being of human health and decreased the risk of disease. All foods contains some adequate amount of functional components other than major components of nutrients which directly or indirectly improve the ones health. Functional food component are a part of normal diet, they are not medicine, drugs or other dietary supplements. Fresh natural foods are act as functional food in our body. All food categories like fruits, vegetables, cereals, meat, fish, dairy all contains functional food. Use of these products is not expensive and risky. Supplementation of cereals and grains shows the presence of some bioactive compounds. Functional foods always have health benefits. Many studies regarding f functional food has confirmed that nutrition has great impact for prevention of chronic disease as most of them are consumed in our daily life. Substance offer fundamental nutrients regularly away from quantity obligatory for standard safeguarding, increase, and improvement of health benefits. This study is reviewed to explain the role of fresh foods and their functional component to well being of human health.*

**Key words:** Functional Food, Health benefits, regulatory status, Nutrition

## 1. INTRODUCTION:

Whole, enriched, fortified processed or enhanced food has been used as a functional food beyond provision of essential

nutrients. One food is functional because it provides nutrients and has many physiological effects (Guangchang et al, 2012). Several natural food components that provide health benefits other than basic nutrients such as fruits vegetables meat fish poultry, cereals grains are supposed to be functional food. Many scientists suggest that people think foods which are available in market are fortified before processing with some special nutrients are to be considered as a functional food. Some people think all traditional foods are functional food which we are consuming in our daily life (Istva et al, 2008). Healthy eating and awareness in between foods and health increases due to advancement of food for reducing the risk of chronic and cardiovascular disease and illness for this reason all processed foods in super markets not considered as a functional food unless with scientific proves the use of most essential nutrients and their presence can reduces the health deficiencies. Modern lifestyle has much negative impact on human life due to mental health problems, stresses, depression loss of memory and poor concentration (Kwak and Jukes. 2001). Preventing from these kinds of non communicable diseases, scientists are busy for searching the accommodating synergies by developing new food products with the help of food scientists and with the help if consumer for reducing much disease likes obesity, chronic disease, various kind of diabetes, musculoskeletal disease, gastrointestinal diseases, anxiety, depression and stresses due to aging effect (*Mattioli* etal, 2016). Most of the European countries people are habitual of taking fast foods due to their busy life style it was globally estimated that 33 billion US dollar is based on European food market. For preventing from oxidative stress our body should defense from antioxidant enzymes minerals and trace elements such as, copper, manganese, and selenium are responsible for acting as a co factor against antioxidant enzyme (Gormley, 2013). Some of vitamin also acts as free radical like vitamin C and vitamin E used as quencher to antioxidant effect. Therefore, this study is reviewed to take a look on the foods which we are consuming in

our daily life and they have functional food properties. The present study is designed on following objectives.

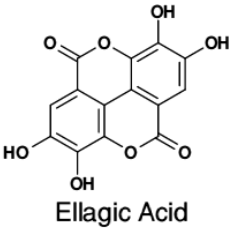
### 1.1. Objectives of study:

1. Use of traditional food as a functional food.
2. To summarize the anti oxidant effect of some fruits, vegetables, cereals and various kind meat.

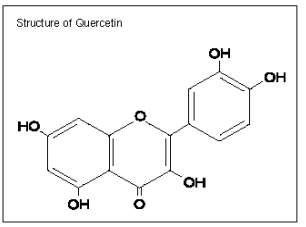
## 2. NUTRITIONAL VALUES OF SOME FRUITS

### 2.1. Oxygen Radical Absorptive Capacity of strawberries:

All berries are naturally filled with many various kind of phytochemicals, and are rich with vitamin C, vitamin B6, omega 3-fats, biotin, phorphorous, magnesium, manganese, potassium, copper, folate, iodine, and fiber. The strawberries provide 33 calories/100gm (Strawberries, 2016).Eating of strawberries prevent inflammatory response in the body, they are also rich ith antioxidant compounds ellagic acid and qurecetin they act as anticancer compounds the dwell in the carcinogenesis compound in the body. (Song et al, 2009)



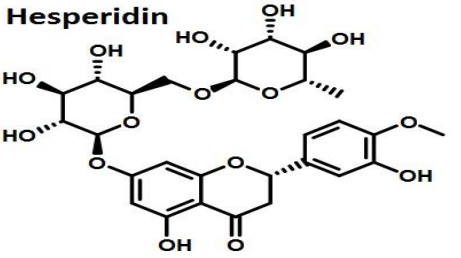
Ellagic Acid




### 2.2. High valued citrus fruit:

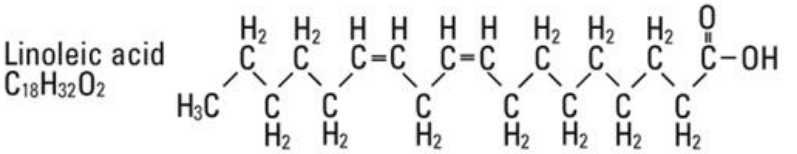
All citrus fruits are a good source of phytochemicals called flavonoids All citrus fruits contains folates, niacin, pyridoxine, riboflavin, vitamin C, vitamin A, vitamin E, vitamin K, sodium, potassium, calcium, copper, iron, magnesium, manganese, zinc. And phyto nutrients includes carotene-B, carotene-A, lycopene, and flavonoid hespridin used as an anti inflammatory agent for

treating many diseases as a functional food component act as an scavenger to block the enzymes which are responsible for releasing histamine to cause inflammation in the body. (Nutrition, 2009). It is evident from the study by the use of citrus fruit their functional component are responsible for reducing the risk of diseases.




### 2.3. Health benefit of vegetable pumpkin:

All vegetables contain a good source of nutrients which varied according to the climate and region. Here we have taken an example of pumpkin due to its highest nutritional value, they provide Vitamin A obtained due to conversion of Beta carotein in the body, Calcium, Vitamin D, Vitamin B-12, Vitamin C, Iron, Vitamin B-6, Magnesium, pumpkin seed and oil contains Dietary fiber, Protein, Saturated fat it is proved that it has a good effect on body and prevent for cancer producing component in the body it blocks their activity. Pumpkins are also rich with alpha linolenic acid which prevents the human body from CVD cardiovascular diseases. (Pumpkin, 2016).




### 2.4. Health benefits of Dry Beans:

All dry bean varieties are a good source of Vitamin B, potassium, fiber and they also contain many health promoting compounds like saponins, these compounds helps the human

body to protect from the cancer causing components, it relieves the constipation, mainly it reduces the incidences of kidney stone, controls blood cholesterol. The functional food component properties of dry beans are not hidden from us. That's why study proved that use of dry beans in our daily life controls many health disturbing disease, prevention is better than cure. Saponins have many other functional properties they protect the antiangeogenic, cytotoic, hyperdelinea, anti-inflammatory, neuroprotective activities in the body.

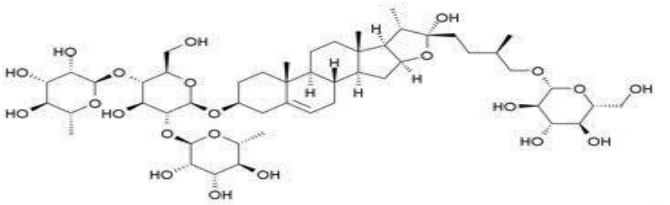
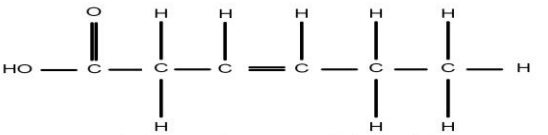


**Fig: Shows the structure of Saponin.**

## 2.5. Health benefits of Fish and fish oil:

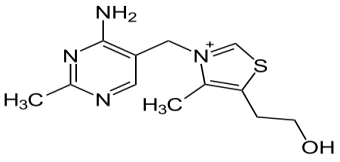
Fish and their by-products are an tremendous source of nutraceuticals and bioactives components, and these can be extracted/secluded and supplementary to a range of foods(Shahidi, 2003; Alasalvar and Taylor et al, 2013) thereby attractive functionality due to the presence of omega-3 fatty acids reduces the risk of heart attach due to high blood pressure or prevent from sudden death, it functionality also prevent the body from cardiovascular mortality by eating fish and its by products in terms of human health (Ronan Gormley, 2013). Intake of fish also prevents the bones stiffness, pains and arthritis activity.



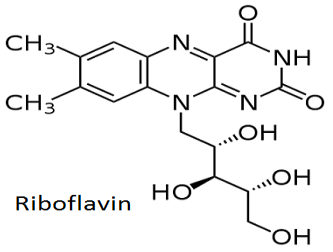
Structure of an omega-3 fatty acid

### 2.6. Health effect of whole grains:

Whole grain Cereal food products have been consumed since ancient time and the basis of the human diet. Low level intake of whole grain foods benefits can be achieved very easily. Dietary strategy every single one over the world are recommend the addition of whole grains for the reason that of the growing substantiation that whole grains and whole-grain-based products contain the aptitude to improve health away from the uncomplicated condition of vigor and nutrients. The whole grain cereals are composed of dietary fiber, flaonoids, indoles, vitamin b, inulin, beta-glucan, resistant starch, carotenoids, phenolics, tocotrienols, and tocopherols the intake of grains prevent the cardiovascular diseases and strokes, hypertension, metabolic syndrome, type 2 diabetes mellitus, obesity, as well as different forms of cancer. It is proved from the study by daily intake of food e can prevent from many diseases which affects our health very fast. (Borneo and León, 2012).




thiamine




Riboflavin

## CONCLUSION:

Interest in functional foods and their healthy effect on body and health has been increasing. The scientists are engaged in finding the fortified enriched food products beyond nutritional effect of functional properties. The study concludes that e can prevent the disease by increasing the consumption of various food products in terms of fruits, various vegetables, grains, fish and meat their antioxidant activity quencher the disease causing components. And due to modernization and busy life

schedules peoples are not mainly focusing on their diet that's why in Europe and other countries the health problems and diseases are increasing day by day. So for future and for well being of human we have to focus on our diet plans. These foods are health beneficial cost effective and more nutritious then some of the marketed food.

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