

Global Transition of Diets: A Lurking Menace and Prevention through Functional Foods

Aditika Agarwal*

PhD (Foods and Nutrition), The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India

***Corresponding Author:** Aditika Agarwal, PhD (Foods and Nutrition), The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India.

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In the present times the social, political and economic drifts (comprising national economies, rapid urbanization, ageing populations, increasing purchasability, sluggish life patterns and the influx of unhealthy diets seem the noteworthy drivers attributable to the non-communicable diseases (NCDs) explosion [1].

The current upsurge of metabolic and cardiovascular disorders is stupendous. Cardiovascular diseases (CVDs) are the number one reason for the global mortality. In the 2015 global death estimates, a number of 17.7 million died from CVDs accounting to 31% deaths worldwide, indicating above three quarters of CVD deaths alone in low and middle income countries (LMICs). Taking cue of the 17 million pre-mature NCDs related deaths (in those under 70 years) 82% were from LMICs, out of which 37% primarily from CVDs [2].

This is posing an alarming threat to not just developing countries but in fact, a global upheaval has occurred with reference to morbidities and associated risks. Currently, the dual burden of malnutrition, including incident clusters of underweight amid micronutrient deficiencies and overweight or obesity along with related non-communicable disorders has mutated into a global health issue, worst affecting the LMICs [3].

Majorly, various factors are downsizing our actual nutrient portions paving way to fat laden and calorie dense foods, without disregarding the vicious phases of physical inactivity and an altogether sedentary lifestyle habits entirely liable. Apparently, in recent times, influx of unhealthy diets seems to be one of the noteworthy drivers attributable to NCD explosion [1]. This has led to a fall in the dietary behaviours of various countries and has aggravated NCD risk [4].

The role of diet is unquestionable with respect to the NCD incidences and its aetiology. However, there seems an inconsistency in the evidence linking saturated fats with CVDs. The inefficiency of low-fat diet in preventing away cardio-metabolic diseases has been revealed which was once supremely suggested to the masses. Now the huge body of literature has centred on the impacts of a higher-fat diet [5].

This century has witnessed a topsy-turvy situation with the advent of Ultra-Processed Foods (UPFs) creating unfavourable health conditions. UPFs are developed industrially from food substances and additives which undergo a series of procedures for deriving out the end product (thus named as “*ultra-processed*”). These are potent players influencing the dietary shift across life cycle approaches now-a-days be it the school going children, adolescents and adults even not sparing the elderly, too. Resultant consequences are widespread diseases with researches suggestive towards advancing brain and cognition related abnormalities to doubly elevate with the advancing age and the decreased intake of dietary nutrients [6].

There is the potential role of Mediterranean diet in contributing towards improved cardiac health and longevity. American Heart Association and several other scientific bodies recommend Mediterranean diet for reducing the cardiac and related risks [7].

Increasing amount of recent evidence propose that a diet high in healthy fat, rich in unsaturated fatty acids, the same as the Mediterranean dietary pattern, could in away check the onset of metabolic diseases for example type 2 diabetes mellitus also decreasing cardiovascular episodes [5].

Similarly, the time has arrived for boosting up the usage of functional foods in our diets with their enormous benefits gaining up huge momentum. Functional foods are defined as any dietary stuff which supplies nutrition and energy, effectively transforms single or multiple targeted bodily functions through improvement in physiologic responses and/or reduction in disease risks [8].

Here, the centripetal functions played by functional foods such as are an undaunted one. Functional foods are known for attenuating the CVD risk owing to their nutrient profiles and health benefits. Being abundant in physiologically active components and antioxidants, their cardio-protective traits on serum lipids have been of keen interest lately [9].

Functional foods are categorised namely as finger millet (ragi), flaxseeds, soy, oats, tomatoes, garlic, broccoli and other cruciferous vegetables, citrus fruits, cranberry, tea, wine and grapes. In the current scenario, a major focus rampant for inclusion of functional foods to turn away the impending disorders and enriching our diets through their abundant health benefits. Flaxseeds (*Linum usitatissimum*) are the major oilseeds are functional foods of prime importance currently. Flaxseeds count as a rich source of omega-3 fatty acids, most importantly the alpha-linolenic acid (ALA). Also, worth mentioning here are the lignans that impart the antioxidant benefits, phytoestrogenic functions and fibre content [10].

The adoption of a functional food rich dietary strategy to prevent the cardiovascular and other metabolic disorders is really crucial owing to the global expanse of its associated morbidity. Promising health profiles are manageable through such approaches. These functional food sources are generally locally available, multi-beneficial, cheap and highly nutritious. The concern lies in identifying the age-specific functional food usage on the regular basis for maximised overall health benefits.

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