



# Types of diet and their nutritional impact on health

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### ABSTRACT

In nutrition, the term diet is the sum of food consumed by a person by prescribed selection. With the word diet, it is often implied the use of specific intake of nutrition for health or weight management reason without giving due consideration to its role to be free from nutrients or chronic deficiencies. A healthy diet is one that helps in maintaining and improving optimal health. This usually involves nutrients by eating the appropriate amount from all food groups including the adequate amount of water. Diet is important for the prevention of many chronic health risks such as Obesity, Diabetics, Chronic Heart Disease and Hypertension. Nutrition of healthy diet can be obtained from many different foods, so there are a wide variety of diets that may be considered as healthy diets. A healthy diet need to have a balance of macro nutrients / energy (fat, proteins and carbohydrates) and micro nutrients to meet the needs of human nutrition without inducing toxicity from excessive amount. The selection of diet from variety of food mainly depends on dietary habits (habitual decision an individual makes on choosing what food to eat). As eating out in hotels and restaurants has become not only a fashion but also compulsive need in today's scenario and work culture, bringing awareness about the healthy diet and to educate the individuals to make appropriate and concrete food choice from different types of diet available are the need and duties of the nutritionists. As both play a significant role in maintaining health and in prevention of many chronic health risks.

**Key words:** nutrition, diet, optimal health, dietary habits, health risks.

## 1. INTRODUCTION

In nutrition, the term diet is the sum of food consumed by a person by prescribed selection. With the word diet, it is often implied the use of specific intake of nutrition for health or weight management reason without giving due consideration to its role to be free from nutrients or chronic deficiencies. Good health cannot be achieved without good food; this statement is true. Nutrition is one of the major factors influencing the health of an individual. We all know that nutrition is the term used for the scientific study of food and how it is utilized by the body. Since food is the source of nutrients, selecting and consuming the right type of food in the right amount becomes important. The word food brings to our mind countless images. Food is associated with worship, divinity and mourning; with family gathering and with community feasting and with celebrations. A healthy diet is one that helps in maintaining and

improving optimal health. The needs of every person at any stage of life are to be modified and deviated from the normal when attacked by illness. Diet therapy can then be considered as a shield, which if effectively used, can protect a person from further attack of the various diseases such as Obesity, Diabetics, Chronic Heart Disease and Hypertension and help in restoring normal health. Thus, an understanding of nutrition is the basis of diet therapy. A healthy diet need to have a balance of macro nutrients / energy (fat, proteins and carbohydrates) and micro nutrients to meet the needs of human nutrition without inducing toxicity from excessive amount. The selection of diet from variety of food mainly depends on dietary habits (habitual decision an individual makes on choosing what food to eat). Keeping in view these facts, the objective of this paper is to describe the type of diet and their impact on health and hospitality.

## 2. TYPES OF DIET AND ROLE IN MAINTAINING OPTIMAL HEALTH

In addition to modification of normal diet in texture and consistency like mechanical, tube feeding, bland diet, restricted residue diets and high residue diet, other modifications in relative proportion of nutrients and restriction of certain nutrients are necessary for maintaining optimal health with respect to the following:

- Carbohydrate: type and content
- Protein: type and content
- Fat: type and content
- Electrolytes and mineral: content
- Vitamins: content

Modification in the proportions of carbohydrates, fat and protein in the diet are necessary, as listed below.

- a) **Diabetic Diet** is carefully calculated for each diabetic patient to minimize hyperglycaemia and glycosuria, to attain ideal body weight and to prevent ketosis, hypoglycaemia and coma. In this diet, proportion of carbohydrates is reduced, that of proteins is increased whereas fat is restricted.
- b) **Low calorie Diet** is prescribed in order to achieve weight loss especially for those suffering from cardiovascular and renal diseases, gout or hyperthyroidism and for severely ill patients with low food tolerance. In this diet all the three energy-yielding nutrients are restricted.
- c) **High-protein, High-fat, low carbohydrate Diet** is used for patients with hypoglycaemia.
- d) **Ketogenic Diet** is used to control epilepsy. It is a low-carbohydrate, low-protein, high-fat diet.

### Modification in Carbohydrates

- a) **Lactose-free Diet** is prescribed for patients suffering from total or partial inability to metabolize lactose (milk sugar).
- b) **Dumping Syndrome Diet** is prescribed for patient who has undergone gastrectomy or gastric bypass surgery.
- c) **Modifications in Fat**
- d) **Restricted Fat Diets** are prescribed for patient with disease of liver, gall bladder or pancreas in which disturbances of digestion and absorption of fat may occur.
- e) **Fat- controlled, Low- cholesterol Diet** is used for patient with increased levels of blood cholesterol and for those with atherosclerosis.

### Modifications in Protein

- a) **Gluten-free Diet** is prescribed for patients with celiac disease or non-tropical sprue having gluten intolerance.
- b) **Restricted Phenylalanine Diet** is given to confirmed cases of phenylketonuria.
- c) **Restricted Purine Diet** is useful in order to decrease the blood uric acid level as in gout.

### Modifications in Electrolytes and Minerals

- a) **Increased Sodium Diet** is useful in Addison's disease.
- b) **Restricted Sodium Diet** is more common and advised for patients with cardio-vascular disease, hypertension, renal disease with swelling, cirrhosis of liver with ascites, pre-eclampsia and eclampsia and ACTH therapy.
- c) **Restricted Potassium Diet** is used in cases where potassium is not excreted properly from the body.
- d) **Restricted Copper Diet** is given in Wilson's disease, oliguria or anuria.

- e) **Acid-ash or Alkaline-ash Diet** is responsible for producing acidity or alkalinity in the body. The alkaline diet is different than the usual diet because it doesn't consist of high fat and protein with low carbohydrates. It is a diet based on the theory that certain food when consumed leaves an alkaline residue or ash. Mineral containing element like calcium, iron, magnesium, zinc, copper are said to be the principal component of the ash. A food is classified as alkaline, acid or neutral according to the pH of the solution created with its ash in water. Such a diet is alleged to help to stressing the body's regulators of acid-base homeostasis. With an alkaline diet, you can greatly influence the delicate acid alkaline balance of your body. Naturopathic expert says that you need to have correct acid alkaline balance to enjoy good health and proper functioning of the body.

#### Other Modified Diets

- a) **Traditional Diet** is those of native populations such as the Native Americans, Khoisan or Australian Aborigines. Often, to qualify for cultural cuisine, traditional diets include more organic farming and seasonal food according to food origins.
- b) **Atkins Diet**, officially called the Atkins Nutritional Approach, is a low-carbohydrate diet created by Robert Atkins. The Atkins diet involves restriction of carbohydrates to switch the body's metabolism from burning glucose as fuel to burning stored body fat. This process, called ketosis, begins when insulin levels are low.
- c) **Blood type Diet** is a diet advocated by Peter D'Adamo, a naturopathic physician. D'Adamo's claim that ABO blood type is the most important factor in determining a healthy diet, and he promotes distinct diets for people with O, A, B and AB blood types.
- d) **Kashrus** is the set of Jewish dietary laws. Food in accord with halakha (Jewish Law) is termed kosher in English, from the Ashkenazi pronunciation of the Hebrew term kasher, meaning "fit". The word kosher has become a part of English slang, a colloquialism meaning proper, legitimate, genuine, fair or acceptable.
- e) **Mediterranean Diet** is a modern nutritional recommendation inspired by the traditional dietary patterns of coastal regions of southern Italy as well as Crete and other parts of Greece in the 1960's. The principal aspects of this diet include high olive oil consumption, high consumption of legumes, unrefined cereals, fruits, vegetables, moderate consumption of dairy products (mostly as cheese and yogurt), moderate to high consumption of fish, low consumption of meat and meat products and moderate wine consumption.
- f) **Zone Diet** is a diet popularized by biochemist Barry Sears. It advocates consuming calories from carbohydrates, proteins and fats in a balanced 40:30:30 ratios respectively. "Zone" is Sears' term for proper hormone balance.
- g) **South Beach Diet** is a diet plan designed by cardiologist Arthur Agatston and dietician Marie Almon as an alternative to low-fat approaches. The South Beach Diet is relatively simple in principle. It replaces "bad carbs" and "bad fats" with "good carbs" and "good fats".
- h) **DASH Diet** (Dietary Approaches to Stop Hypertension) is a diet promoted by the national Heart, Lung and Blood institute to control hypertension. This eating plan is rich in fruits, vegetables, whole grains and low-fat dairy foods; includes meat, fish, poultry, nuts and beans; and is limited in sugar-sweetened foods and beverages, red meat and added fats.
- i) **Prudent Diet** is necessary to dampen this artery-clogging disease. All individuals with a diagnosis of heart disease or who have a family history of heart disease should follow a prudent diet. The diet is low in total fat, saturated fat, trans fat, cholesterol and sodium. These dietary modifications assist in lowering cholesterol and triglyceride blood levels and blood pressure.

### 3. DIET AND HOSPITALITY INDUSTRY

Today millions of people around the world puzzled to understand the right nutrition for them. Even though there is abundance of cheap, healthy food items available around us, somehow the link between good food and health has been missing. Nutrition, health and wellness are intricately interlinked. If the diet is poor, ill health will result because of deficiency or excess of one or more nutrients. So it should be ensured that the diet include nutrient from all major food groups. Aberrations in our nutrition tend to significantly influence our health and well-being. Gradually, but unfortunately, our eating habits have changed in a significant way from their usual, natural pattern. Each passing day, various hazardous agents enter our body through our diet.

With chronic preventable diseases such as diabetes soon to afflict 50 million urban Indians by 2015 and India boasting of having 60 percent of the world's cardiac patients in 2010 (WHO figures), It can be estimated that in the near future, a fair number of these special needs guests will use the services of the hospitality industry. The medical establishment believes that the manner in which trendy food and beverage services are presented, are often harmful to a customer's health. An issue that should be debated is whether these increased numbers are in any way

connected to the increases in chronic preventable diseases for the customer. The fact is that most customers eat healthiest at home. When on the get-togethers, celebrations and outings they consume multiple portions of energy dense foods that provide an unbalanced daily intake. Now-a days, need and opportunity may be to address necessary changes. Recent trends in the hospitality sector have witnessed increasing shifts towards offering wellness and holistic programs. The time has come to move beyond these basic 'feel good' packages and move towards managing the consumer's health needs also. Though the industry has formed cross sector alliances with the physical fitness and medical tourism providers, their attention to dietary intake and nutritive quality of food has lagged behind. Customized disease specific diet offerings in the hotel, restaurant and room service menus, are visibly lacking. Currently, there is no perceived value in providing these services. The consumer however, is growing more aware of his propensity towards these chronic diseases and is demanding greater accessibility and customization of his diet. Nutrition Vista anticipates this perception to change as the customer faces personal challenges through dietary restrictions, which if neglected, costs the consumer in increased healthcare expenditures, lost productivity and disability. The hospitality industry needs to actively address these gaps in their offerings. These gaps should be addressed fulfilling by menu preparation in decorative and informative manner for consumers and giving awareness and educating them about the benefits of modified diet to them in a pleasing and attractive manner. The tech savvy customer has the ability to do comparative searches and seek out those facilities that go the extra mile in providing these new, quality of life services. Expecting these changes in approach to menu planning and implementation, require a different mindset for the hotelier and restaurateur, as well as logistical issues of following through with the delivery of care and ensuring that actual nutrients recommendations are being met. The negative consequences of not making the necessary changes may leave the impression of provider in difference instead of corporate social responsibility. The goal of each provider is to capture and retain his or her customer in this competitive market. By helping them in managing their health condition and offering a solution that is informative, effective and strategically necessary, providers can simultaneously achieve long-term opportunities through customer loyalty. Sooner than later, companies will be expected to offer personalized nutritive care to accommodate individual consumer health needs such as health care, addressing the normal and therapeutic diets. The first movers to offer such customized food and beverage offerings, will be perceived as pioneers in the market for successfully filling the gaps in otherwise exemplary services. It is time for the industry to work with the dietetic services sector and companies that specialize in this field. In summary, globalization is mainstreaming the green, the wellness, and now the preventive healthcare economies. The challenge lies in making this both, profitable as well as socially responsible. A good start would be in the food and beverage divisions, where maximum benefit can be easily implemented through direct and disease specific dietary interventions for the customer. Different combinations of nutrient according to different types of food available and discussed should be used in restaurants, hotels and other hospitality industries to satisfy nutritional, aesthetic and social needs.

#### 4. CONCLUSION

It is, therefore, important to understand the nutritional requirements of our body. All of us are curious to find out what is a well balanced diet in order to stay healthy and to enjoy productive life. Customized disease specific diet offerings in the hotel, restaurant and room service menus, are visibly lacking. Currently, there is no perceived value in providing these services. As eating out in hotels and restaurants has become not only a fashion but also compulsive need in today's scenario and work culture, bringing awareness about the healthy diet and to educate the individuals to make appropriate and concrete food choice from different types of diet available are the need and duties of the nutritionists. The consumer however, is growing more aware of his propensity towards chronic diseases and is demanding greater accessibility and customization of his healthy diet.

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