

# Review on Nutrition and Dietetics

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**Abstract:** Diet and nutrition play an important and fundamental role in the lives of everyone. It contributes to the formation of a healthy body and a strong mind. We know that nutrients-rich foods can remove toxins from the body, promote a good immune system, reduce hunger, and prevent obesity. Obesity is one of the most worrying, alarming and fastest-growing pandemics. It affects not only adults, but also adolescents and children. Early onset of diseases requires quick attention to control the physical, psychological, financial and social burdens it generates. Children with autism and autism spectrum disorders (ASDs) are often affected by eating disorders. Their preference for low-nutrient, energy-intensive foods may alter metabolism, lead to accumulation of oxidative atoms, and deteriorate their mental and physical condition. Although diet and weight loss are now common among the general population, it is difficult to raise awareness of nutrition, nutrition and obesity in children with special needs. Despite efforts, parents of children with such children cannot usually control their diet, as tantrums and behavioural problems are common. Currently, doctors and parents must work with nutritionists and nutritionists to help these children eat healthy, stay fit and improve their quality of life.

**Categories:** Family/General Practice, Pediatrics, Public Health.

**Keywords:** applied behavioural analysis (aba), autism, autism spectrum disorder, diet, nutrition and exercise, pediatric, assessment, metabolism, supplements, gluten-free diet, complementary and alternative medicine (cam)

## I. INTRODUCTION

Nutritional nutrition is the supply of food essential nutrients to support the existence and health of the human race.<sup>1</sup> Lack of nutrition is a chronic problem associated with poverty, food security, and poor understanding of food needs, and malnutrition and its consequences are an important cause of death, physical disability, and disability worldwide.<sup>2</sup> Good nutrition is necessary for children's physical, mental, and normal physical development.<sup>2</sup> Uncontrolled and unhealthy eating habits can lead to physical changes, such as population obesity and obesity. These body changes change our well-being, causing high cholesterol, high triglycerides, high blood sugar and electrolyte imbalances, leading to several health problems. Diseases such as diabetes, coronary artery disease, stroke and many other diseases are common.<sup>3</sup> People with uncontrolled dietary habits may have undiagnosed dietary disorders (ED). Studies have shown that ED may be one of the main causes of comorbidities.<sup>4</sup> Children with neurological developmental disorders (such as autism and autism spectrum disorders) are the most common ED patients compared to the general population.<sup>4</sup> Recent studies show that one in 68 children in the United States (about 3% of children) may have autism or DD.<sup>5,6</sup> Children with autism and ADD reduce social interaction, eye contact, repetitive stereotypical sensory and motor behavior, and communication with others.<sup>7</sup> Autism and ads also lower the probability of exercise, leading to obesity and obesity.<sup>8</sup> These children are considered picky eaters and prefer junk food: calories are dense, carbohydrates are dense, sodium is high, and diets are low.<sup>3</sup>

### Overview:

The human body contains chemicals such as water, carbohydrates, amino acids (proteins), fatty acids (lipids), and nucleic acids (DNA and RNAs). These compounds include carbon, hydrogen, oxygen, nitrogen and phosphorus. Studies to determine nutritional status must take into account body conditions before and after experiments, as well as the chemical composition of the entire diet, excrement and expulsion from the body (including urine and excrement).

**Objectives:-**

- Provide nutritional value to the body
- Study the daily nutritional needs of the body
- Determine and select appropriate nutritional and dietary charts
- Study the maintenance of nutritional and nutritional plans for the body
- Improve better nutritional intake of our food
- Determine nutritional values for our food
- Study the effects of nutrition and diet on diseases and treatments

**Definition:**

Given the need for PN in health care and the possible impact it has on human health, we propose a definition: Personal nutrition is a field in which the individual is used to drive food strategies to prevent, manage, treat and optimize health. The three components of the PN field are science and data, professional training and training, guidance and treatment of PN. These elements are described below as discrete applications and discussed in more detail about their interdependence.

**Class**

The seven main nutrients are carbohydrates, fats, fibers, minerals, proteins, vitamins, and water. Carbohydrates, fats and proteins are macronutrients that provide energy, water and fiber are non-energy macronutrients,<sup>8</sup> and micronutrients are minerals and vitamins.<sup>9</sup> Micronutrients (excluding fibers and water) provide structural material (the amino acids that form proteins and the lipids that form cell membranes and some signal molecules) and energy. Some structural materials can also be used internally to generate energy, or in both cases measured in Joule or Kilocalories (often called "calories" and written in "C" capital to distinguish them from small "c" calories). Carbohydrates and proteins supply about 17kJ (4kcal) of energy per gram, while fats supply 37kJ (9kcal) of energy per gram,<sup>10</sup> although net energy from both Depe and Depe is factors such as absorption and digestive efforts vary greatly depending on the case. Vitamins, minerals, fibers, and water are not energy, but are necessary for other reasons. Third-generation food products (i.e., non-digestible products such as fibers) also appear to be needed for mechanical and biochemical reasons, but the exact reasons remain unknown. Men must consume more macronutrients on average than women in all age groups. In general, when you get older, you increase the intake to the second or third decade of your life.<sup>11,12,13</sup>

**Carbohydrates:-**

Carbohydrates can be classified into monosaccharides, de-saccharides and polysaccharides, depending on the number of monomers (sugars).<sup>13</sup> They have chemical, physical and physiological properties and form most of the foods we eat, such as rice, noodles, bread, and other cereals, but are not essential nutrients, which means we do not need carbohydrates.<sup>14</sup> Monosaccharides include glucose, fructose, galactose, sugar, lactose, malt, and pure sugars used as table sugars.<sup>15</sup>



**Vitamins:-**

In addition to vitamin D, vitamin D is an essential element for healthy food. Vitamin D is synthesized by UVB radiation in the skin. (Many animals can synthesize vitamin C, but humans cannot.) Suitable vitamin compounds, such as carnitine, are considered to be useful for survival and health, but because the human body can produce them from other compounds, they are not "essential". Furthermore, thousands of plant chemicals (especially fresh vegetables) have recently been found in foods, including antioxidant.<sup>17,18</sup>



**Minerals**

Dietary minerals are inorganic chemicals required by organisms with the exception of the four carbon, hydrogen, nitrogen, and oxygen elements present in almost all organic molecules. Some are co-factors and others are electrolytes. The term "mineral" is outdated because it simply aims to describe less common elements in the diet. Some of these are heavier than the four listed, including some metals that often occur in ions in the body. Some dietetics recommend that these foods are supplied from natural foods or from at least complex compounds or from natural inorganic sources (such as calcium carbonate in shells). Some are easier to absorb in ionized forms found in such sources. In addition, minerals are often artificially added as supplements to food; the most well-known is probably iodine in iodized salt that prevents giter.<sup>16</sup>



**Water**

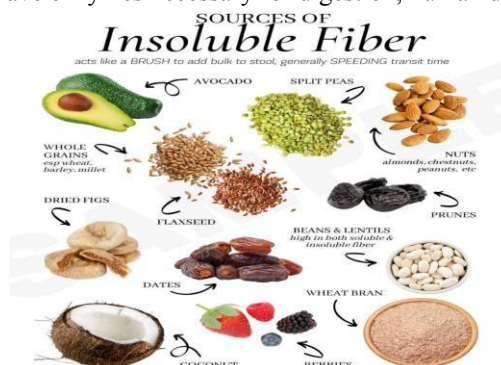
Water is emitted from the body in a variety of ways, including urine and excretion, sweat and steam from inhalation. Thus, to replace lost liquids, it is necessary to properly hydrate. Although the original recommended drinking of 6 to 8 glasses of water per day was for health maintenance, the idea of 8 glasses of water per day cannot be traced back to a reliable scientific source. Most of this amount is contained in prepared foods.

**Fiber**

Food fiber is a particular type of carbohydrate, polysaccharide, and is not fully absorbed in humans and certain animals. Like all carbohydrates, it can produce 4 grams of calories (calories) when metabolized, but is generally lower because of its limited absorption and digestibility.

The two subcategories are insoluble and soluble fiber:

Insoluble dietary fiber: - Human digestive systems do not have sufficient microbes that contain large carbohydrates and polymers, and because they do not have enzymes necessary for digestion, human digestive systems cannot digest them.



Soluble dietary fiber: - Contains various oligosaccharides, wax, etc. and other carbohydrates that dissolve in water or gelatinize. Many of these soluble fibers can be fermented or partially fermented by human digestive microbes, producing absorbed short-chain fatty acids, introducing a certain amount of calories.<sup>19</sup>



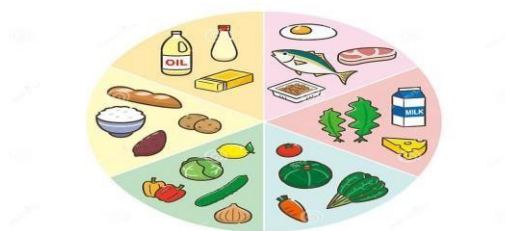
**Malnutrition**

In developed countries, malnutrition is often associated with nutritional imbalances or excessive consumption, and global malnutrition is increasing due to excessive consumption. According to the World Health Organization, the biggest challenge facing developing countries today is not hunger but a lack of nutrients essential to growth and vital functions. Malnutrition is directly associated with poor macronutrient consumption and disease, and is indirectly associated with factors such as household food security, maternal and child care, health services and the environment.



**Fats**

Like carbohydrates, fat provides energy and is not a demon that sometimes appears. Fat helps us absorb some important vitamins, build cell membranes, move muscles, clot blood and not die. It also allows our bodies to defend themselves through inflammation as necessary. Fats are composed of carbon atoms bound to hydrogen atoms, whose length and shape depend on the carbon chain and are often translated into fat production, metabolism, and digestion.<sup>20</sup>



**Advantages of Nutrition:<sup>21</sup>**

1. Optimal health: Through proper nutrition, the body needs vital nutrients, vitamins, minerals, and energy. This can improve overall health and reduce the risk of chronic diseases.
2. Energy and vitality: A balanced diet provides the energy needed for daily activities and increases the energy and alertness of individuals.
3. Weight management: A good diet can help you manage weight by promoting weight loss or maintaining a healthy weight. A balanced diet can prevent overeating and reduce the risk of obesity.
4. Prevention of diseases: proper nutrition can reduce the risk of various diseases such as heart disease, diabetes, some cancers and osteoporosis.
5. Cognitive function improvement: A diet rich in nutrients is associated with improved cognitive function and reduced risk of cognitive decline as people get older.

6. Strong immune system: Proper nutrition supports healthy immune systems and is crucial in the fight against infections and diseases.
7. Healthy growth and development: proper nutrition is the essential component of child and youth development, and cognitive function.
8. Health improvement: Good nutrition can improve general health, improve immunity, prevent chronic diseases, promote healthy growth and development.

#### **Disadvantages of Nutrition:<sup>21</sup>**

1. Excessive eating: one of the health risks is the excess intake of calories and unhealthy foods, which leads to obesity and health problems.
2. Food insufficiency: Bad food choices can lead to food insufficiency, leading to many health problems. For example, a lack of vitamins and minerals can cause diseases such as leukemia and stroke.
3. Food allergies and sensitivity: Some people may have food allergies and sensitivity, which limit their diet and require careful diet management.
4. Cost: Nutritionally rich foods are sometimes more expensive than processed or harmful foods, so those with limited budgets find it difficult to access them.

## **II. CONCLUSION**

Qualitative research is undoubtedly an excellent source of nutrition and food. Food plays several roles in the individual's life, and qualitative research is especially effective in managing this complexity by investigating how people behave. Historically, qualitative research has been placed in lower evidence hierarchy, but it is increasingly recognised that it should be an important part of the decision-making process for the development of health policies and practices.

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