

## **Importance of Few Elements of Periodic table for the Women Health**

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### **Abstract**

Every Element of Periodic table has a significant importance in society. In other words all the elements play significant role in all the biotic or abiotic system. On the other hand elemental deficiency or efficiency is the major cause of malnutrition mainly in women, children and infants. In this world, there is a misconception that majority of the vegetarians and vegans are mal nourished<sup>1</sup>.

Malnutrition caused by elemental deficiency or efficiency is not just found among poor people but also found among those who don't take a proper diet or the ones whose body cannot process the food. The Food and Agriculture Organization of the United Nations estimates that 843 million people worldwide are hungry and a greater number suffer from nutrient deficiencies<sup>2</sup>. Approximately one billion people have inadequate protein intake<sup>1</sup> certain people in developed countries are also at risk. Malnutrition is a condition that results from eating a diet in which one or more nutrients are either not enough or are too much such that the diet causes health problems most foods contain some protein. As a result, true protein deficiency is rare in developed countries. A lack of adequate breastfeeding leads to malnutrition in infants and children, associated with the deaths of an estimated one million children annually. Illegal advertising of breast milk substitutes contributed to malnutrition and continued three decades after its 1981 prohibition under the WHO International Code of Marketing Breast Milk Substitutes. Maternal malnutrition can also factor into the poor health or death of a baby. Over 800,000 neonatal death have occurred because of deficient growth of the foetus in the mother's womb.<sup>3</sup> Deriving too much of one's diet from a single source, such as eating almost exclusively corn or rice, can cause malnutrition. This may either be from a lack of education about proper nutrition, or from only having access to a single food source.<sup>4</sup> special study on malnutrition has been presented in this research paper.

**Key words:** elemental deficiency, elemental efficiency, inadequate protein, poor health, vegans, malnutrition

### **Introduction**

In this world, there is a misconception that majority of the vegetarians and vegans are mal nourished. Malnutrition is not just found among poor people but also found among those who don't take a proper diet or the ones whose body cannot process the food. The Food and Agriculture Organization of the United Nations estimates that 843 million people worldwide are hungry and a greater number suffer from nutrient deficiencies. Approximately one billion people have inadequate protein intake<sup>1</sup> Certain people in developed countries are also at risk. Malnutrition is a condition that results from eating a diet in which one or more nutrients are either not enough or are too much such that the diet causes health problems Most foods contain some protein. As a result, true protein deficiency is rare in developed countries. A lack of adequate breastfeeding leads to malnutrition in infants and

children, associated with the deaths of an estimated one million children annually<sup>4</sup>. Illegal advertising of breast milk substitutes contributed to malnutrition and continued three decades after its 1981 prohibition under the WHO International Code of Marketing Breast Milk Substitutes. Maternal malnutrition can also factor into the poor health or death of a baby. Over 800,000 neonatal death have occurred because of deficient growth of the foetus in the mother's womb. Deriving too much of one's diet from a single source, such as eating almost exclusively corn or rice, can cause malnutrition. This may either be from a lack of education about proper nutrition, or from only having access to a single food source.

### **Important elements of proteins**

Proteins are the long chain of amino acids and the main protein constructive elements are- Nitrogen, Hydrogen, Oxygen and Carbon, deficiency of protein is when people do not get adequate amounts of protein from their diet. Protein deficiency is most severe form, is most commonly seen in children in developing countries.

### **Elemental Disorder**

One elemental disorder shows a disease known as edema, which is characterized by swollen and puffy skin, is a classic symptom of kwashiorkor. Scientists believe it is caused by low amounts of human serum albumin, which is the most abundant protein in the liquid part of blood, or blood plasma<sup>6</sup>. One of albumin's main functions is to maintain oncotic pressure, a force that draws fluid into the blood circulation. Key symptoms of kwashiorkor are edema and a swollen abdomen.

Protein deficiency often leaves its mark on the skin, hair and nails, which are largely made of protein. For instance, kwashiorkor in children is distinguished by flaky or splitting skin, redness and patches of depigmented skin<sup>5</sup>. Hair thinning, faded hair colour, hair loss (alopecia) and brittle nails are also common symptoms. However, these symptoms are unlikely to appear unless you have a severe protein deficiency.

### **Materials and Methods**

Various samples are collected from villages of rural area of wheat, Tuar Dal, Moong Dal (Green Dal), Chana Dal, Joar, Bajra and Rice etc. and qualitative and quantitative analysis has been carried out to know the nutritional values of these collected samples. The main focus is on Protein analysis, Fat analysis, Carbohydrate analysis and finally energy calculation of these raw foods have been done.

### **Results of Chana Dal**

S.No.	Test Parameters	Units	Results
1	Protien	Gm/100gm	19.5
2	Vitamin A	IU/100	63
3	Iron	ppm	29.41

### **Results of Corn**

S.No.	Test Parameters	Units	Results
1	Protien	Gm/100gm	8.8
2	Vitamin A	IU/100	189
3	Iron	ppm	260

### **Results of Masur Dal**

S.No.	Test Parameters	Units	Results
1	Protien	Gm/100gm	20.10
2	Vitamin A	IU/100	39.0
3	Iron	ppm	Nil

The results of this investigation show that certain biochemical tests provide more objective differential information that are helpful to find the solution.

### **Result and Discussion**

Due to insufficient eating and low percentage of protein, carbohydrate and iron containing food intake, most of the women of villages of the rural areas are suffering from protein deficiency diseases .Above discussed problems are mainout of them. Ketosis is a normal feature of a total fast lasting more than about 24 hours; it is readily prevented or abolished by carbohydrate intakes as low as 50–100 g per day. Because even starving patients usually consume more than this amount of carbohydrate, the vast majority of them are not ketotic. Fasting ketosis is associated with protein catabolism, so it should be prevented by infusing 5% dextrose solution, 2 L per day, to patients who must temporarily be kept fasting.

### **Conclusion**

The good health of women is a serious problem in India. It is directly related to their status in the society. The demographic consequence of the women has formed expression in various forms, such as female infanticide, higher death rate, as compared to men. Generally, at household level, cultural norms and practices determine the extent of nutritional status among women. National Nutrition Monitoring Bureau has been carrying out regular surveys on diet and nutritional status of different population groups since 1972. For the purpose of present

investigation, the data collected from the different villages of the rural areas along with samples of raw food to check the nutritional values to find the cause of malnutrition.

Reference:

1. Ann N Y Acad Sci. 2014 Nov;1328:18-28. doi: 10.1111/nyas.12566
2. Ann N Y Acad Sci. 2014 Aug;1321:1-19. doi: 10.1111/nyas.12500.
3. Malnutrition Kills Over 3 Million Children Annually Worldwide". Medical News Today. Retrieved 2018-02-20.
4. Burchi F, Fanzo J, Frison E (February 2011). "The role of food and nutrition system approaches in tackling hidden hunger". Int J Environ Res Public Health. **8** (2): 358–7
5. McLaren DS. Arch Dermatol. Pubmed.gov. Skin in protein energy malnutrition. 1987 Dec;123(12):1674-1676a.
6. Pubmed .gov, Paediatr Int Child Health. 2015 May;35(2):83-9. doi: 10.1179/2046905514Y.0000000154. Epub 2014 Sep 16.

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