

Unti 3



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Analysis of Food Intake The intake of food containing different form and types of nutrients can be considered as one of the essential processes in different organisms. In human beings, the food intake is needed to be balanced to be able to achieve the optimum amounts of nutrients and other essential components required for the different types of body functions. The main objective in the study is to be able to determine the importance of one of the needed food components in the body which are the macro and trace minerals.

Minerals can be considered to have essential roles in the living organisms, thus, although their sources are from non-living organisms, proper amount which is commonly in trace contents in food are fundamental to the health and nutrition of the people. In amounts that are above or below that of the recommended intake, certain health conditions can be incurred (Table 1). Some of the essential macro and trace minerals are calcium, chromium, copper, fluoride, iodine, iron, magnesium, manganese, molybdenum, phosphorus, potassium, selenium, sodium, and zinc (Linus Pauling Institute).

Table 1. The diseases due to lack or excess in macro and trace minerals.

Deficiencies

Calcium abnormal parathyroid function

Chromium problems in glucose utilization; the needed for insulin increased that

can lead to diabetes development.

Copper decrease in the important components of the blood that can lead to neutropenia and even osteoporosis due to malfunctions in the blood

Fluoride dental carries or tooth decay

Iodine hyperthyroidism, goiter, hypothyroidism

Magnesium abnormal development of bone mass due to deficiency in osteoclasts

Source: (Linus Pauling Institute).

The data presented are some of the trace minerals. It can be considered that although the said macro and trace chemicals are present in such a small amount, absence can greatly affect the functioning of the organ systems of humans.

Chromium is one of the most interesting minerals due to the fact that it can occur as a toxin that can greatly damage the human body while at the same time recognized as an essential mineral. Due to the damaging and disruptive effects of chromium as a heavy metal, it had been recognized as a carcinogen. In trace amounts though, it functions in immunostimulation and immunosuppression which are both essential for control in the processes of the immune system (Shrivastava et al. 1).

Based on the study of the nutritional condition of the populations in different regions specifically the US, it can be considered that information dissemination and the proper distribution of knowledge regarding nutritional habits and techniques to be able to improve the health of the population. In addition, balanced diet that is composed of different nutrients and minerals can still be considered as the simplest way to be able to improve and maintain health.

Reference

Linus Pauling Institute. 2008. Micronutrient Information Center: Minerals. Oregon State University. 30 July 2008. Shrivastava, R., Upreti, R. K., Seth, P. K., Chaturvedi, U. C. " Effects of chromium on the immune system." FEMS Immunol Med Microbiol. 34. 1 (2002 Sep 6): 1-7. Links

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