IODINE DEFICIENCY DISORDERS

Abstract: Healthy humans require iodine, an essential component of the thyroid hormones, thyroxine and triiodothyroine. Failure to have adequate iodine leads to insufficient production of these hormones, which affect many different parts of the body, particulary muscle, heart, liver, kidney, and the developing brain. Inadequate hormone production adversely affects these tissues, resulting in the disease states known collectively as the iodine deficiency disorders, or IDD. Based on the most recent evaluation, iodine dificiency currently represents a significant public health problem for 1750 million people (almost 30% of the world s population) in 110 countries. 755 million are affected by goitre, 12 million are believed to be significantly mentally handicapped as a result of iodine deficiency which is therefore the most prevalent preventable cause of impaired intellectual development in the world today.

Although the disorders that result from iodine deficiency are preventable by appropriate iodine supplementation, they continue to occur because of various socio-economic, cultural and political limitations to adequate iodine supplementation programmes.

The statement specifies that a safe daily intake of iodine should be between a minimum of 50 microgrammes and a maximum of 1000 microgrammes. A generally accepted desirable adult intake is 100-300 microgrammes per day. Although potassium iodide was first used in salt iodization, the use of iodate is now recomended since it is more stble than iodide under varying climatic conditions. Average daily salt intakes very from country to country from 5 to 15 grammes per day. Instated of increasing salt consumption, the quantities of iodate addea to salt should be adjusted to provide approximately 150 microgrammes of iodine per day, taking into account factors like heat and humidity, which can affect retention of this element during storage of iodized salt.