THE SIGNIFICANCE OF IODINE FOR HUMAN ORGANISM

The man aim of this brochure is to point at the importance of iodine for human organism, as well as for the life on the Earth, that it is a basic pillar to a healthy lifestyle and a „secret recipe” for long life in laic terms.

WHY IODINE?

Jodine is one of the most important trace elements. Our overall health condition, development and growth, vitality and having a health and good condition even in older age depends on iodine.

BIOCHEMICAL PROCESSES IN HUMAN ORGANISM

The activity of human organism is a complex tangle of very complicated biochemical processes. There has been a lot of phrases connected with love or sex, such as „hormonal excitement” or „chemistry working”, etc. However, not many people know what they really mean.

METABOLISM – AS A PART OF BIOCHEMICAL PROCESSES

In laic terms, biochemical processes and metabolism are activities and processes of each and single organs in a human body, which select the important elements for human body such as minerals, vitamins, sacharids, lipids, proteins out of food intake, which are transformed into energy and hormons. The unnecessary rest of food is being excreted from the body as a waste. The sole purpose of these processes is to provide energy and hence the functioning of an alive organism.

HOW IT ALL WORKS WITH CONNECTION TO IODINE

Iodine preserves the proper activity of a thyroid gland (later thyroid) – a sort of iodine reservoir in the human body. The gland uses iodine from the blood and „produces” hormones, which lead all the biochemical processes in human body. It could be said that a thyroid is the general manager of biomechanical processes in human body. The prime aim of a thyroid is production of hormones which run and control metabolism, growth and development of a body and maturing. The thyroid synthesizes and excretes two major hormones:

- $T_3$ (triiodothyronine), which is transformed from $T_4$
- $T_4$ (thyroxine, tetraiodothyronine)

$Triiodothyronine$ is the strongest thyroid hormone and influences almost all body functions, including body temperature, growth, hearth rate, and reduction of fats and sacharids.

$Thyroxine$, the second most important hormone binds iodine in the body and affects cell metabolism.

Aforementioned states that iodine is at the peak of pyramid made of biomechanical processes and metabolism in human body. It is unique and irreplecable. Basically, when there is a life there must be iodine and vice versa.

SIMULATED LAIC EXAMPLE OF A IODINE SIGNIFICANCE

When a doctor finds a gall blader stone, the first questions are how it got there and what caused it. There is a simple, possible answer to this. The gland, thanks to iodine, operates/controls all biochemical processes, and consequently stores
calcium in bones. If organism did not have enough iodine, the gland did not fulfill its sole operating function, meaning the absence of operating command – for calcium to store in bones. Thus, the calcium stored at the most convenient place – e.g. in gall bladder.

The above mentioned example can be considered an evidence to the usage of e.g. nutrition tablets containing magnesium, sodium, calcium, fluorine, zink, vitamins, etc. that people eat, do not necessarily have to or even cannot accomplish its purpose if there is a deficiency of iodine in human body. Many of these vitamins and minerals are uselessly excreted from the body.

SOURCES OF IODINE AND ITS GENERAL DEFICIENCY

Soils and plants of the Mediterranean territories on the Earth do not contain iodine in sufficient amount. On the land, there is not enough iodine although its demand is on the rise. The most natural sources of iodine are sea fish, algae and sea water. It is a result of iceberg melting from 40 million years ago, when a majority of iodine had been washed away into the sea. The question remains where to acquire it in sufficient amounts and reasonable form for every living creature on the planet Earth.

RISE OF IODINE CONSUMPTION – A CONSEQUENCE OF CIVILIZATION DISEASES

Globally, about 1 billion of people suffers from iodine deficiency. In addition, an average European intakes only 80 micrograms of iodine and recommended intake is 180 or even 250 micrograms for pregnant women. Even more appalling is the fact that iodine consumption should increase. Why? The iodine consumption grows proportionally with the pace of our life. It is similar to a car, the faster car drives the more petrol it burns. For instance, in the middle of a previous century, 50 micrograms of iodine was sufficient for us, today it is 4 times more to achieve a healthy lifestyle. The pace of our life is stipulated by a lifestyle in modern, civilized society. Namely stress, problem solving, continual rat race, all of which is unfortunately perceived as a normal everyday life. Moreover, there is also sport, pregnancy, alcohol, smoking, etc.

EUROPEAN IODINE PROGRAM – PROOF OF IODINE NECESSITY FOR LIFE

Fortunately, the scientists in the middle of a previous century realised it. Former Czechoslovakia, as an inland country without sea, joined so called iodine programe. Salt has become enriched with iodine, as it has been considered it would provide the sufficient iodine consumption for most of people. The only problems were elder people and children whose iodine consumption was lower.

The biggest problem is that impact on our health caused by iodine deficiency in young age, even fetal development in pregnancy is irreversible and its effects can appear much later, in older age. However, nobody realises this reality!! We would use a car example for illustration again. If you want to save money, you should buy less octane, cheaper petrol. At first, the car seems to be in good condition, however, after a couple of ten thousands kilometres the car engine power is not what it should be. The engine is damaged, earlier than it was supposed to.

It is similar to the human body. It is true that we can live without sufficient iodine measure although our organs are exposed to a fatigue, worn down, we wrinkle and get older a lot earlier. The diseases start to reflect much sooner. For example, a „grandfather” started having problems with his prostate when he was 80 years old, nowadays, there are 30 year-old-men with the same problem. Another example is an obesity, once there were middle-aged women suffering from obesity, these days it is youth, both girls and boys. Unfortunately, there is a lot of other civilization diseases like breast cancer, or cervical cancer or other civilization diseases!

EVIDENCE OR COINCIDENCE

Iodine is not only responsible for our health. Yet, there are facts which cannot be challenged. We are going to illustrate this on 3 different examples which illustrate the iodine significance for human body and also put any doubts to the rest.

1. The Japanese, who are extremely intelligent and have fast pace of life, live to a high age in good health and condition. They live on a narrow, 3000 km-long island, with the climate sated with sea iodine. At the same time, the Japanese are the biggest consumers of raw fish – sushi and algae which are the greatest source of iodine. The japanese daily iodine intake is up to 6000 micrograms (Europeans – only 80mg).
2. To the exceptionally high age - 100 and up – live the Kazakh herdsmen and the Australian Aborigines. Apart from the Japanese, they live isolated from the civilization, in peace and quiet, without stress and rat race, which means they do not need as much iodine as civilized people.

3. Many of modern diseases, e.g. AIDS originated in Africa, where people are poor, live - in may cases - only to low age, suffering and starving. Apparantly, deficiency of vital minerals, including iodine, and vitamins weakens their physical condition and immunity, and so create a perfect enviroment for development of new diseases.

Another indirect evidence about a significance of iodine for human body could be a few facts and figures:
- Increase in the number of children born with average intelligence, lacking the interest in studies, often suffering from obesity, with the overall weakend and limited, phycsculture,
- Increase in the number of civilization diseases, which affect people at younger age.
- An alarming increase in a number of various consumed pharmaceuticals, partly different nutrition supplements and vitamins.

All of the above mentioned is alarming. The following experiment focusing on two classes could be used as another example. At the beggining and at the end of the experiment, a detailed medical examination has been undertaken at both classes. Students of one class have been given iodine treatment for the time of one school year. The results have been remarkable. The health condition in the experimental group has dramatically improved, in terms of better condition, longer attention span, children have been more sensitive, moreover, their school results improved as well.

**SUMMARY – FUNCTIONS OF IODINE IN HUMAN BODY**

- Controls growth and maturing
- Administers biochemical and metabolical processes in human bod
- Stabilizes hormonal levels
- Strenghtens immunity
- Helps the cardiovascular system
- Helps regulate blood sugar levels
- Helps brain functions, improves memory, attention span, IQ
- Affects neural system, and psychical condition
- Remedies depression and overall fatique of the body
- Improves the cell nutrition
- Prevents energy decrease
- Protects human organism from radioactive radiation
- Hepls burning fats
- Actively influences termoregulation
- Decreases hair loss
- Improves the nail structure
- Oxygenates, desinfects skin

**SUMMARY – THE IODINE DEFICIENCY AND ITS EFFECTS**

- The origin of new civilization
- Mental disability - children
- During pregnancy it can be a serious danger for unborn baby in terms of brain and neural systems development, causes an irreparable damage
- Children learning disorders, tiredness, lack of concentration, slowed reflexes, lowering of IQ
- Decline of immunity
- Origin of some types of cancer and tumours
- Malfunction of cardiovascular system
- Malfunction of a thyroid (gland)
- Anaemia – decline of haemoglobin in blood
- bronchitis
- depressions and inner restlessness
- women menstrual cycle malfunction, problems with getting pregnant even infertility
- male infertility problems
- weight gain, especially during period of menopause
- malfunction of sexual maturing
- feeling of cold in extremities
- pain and muscle cramps
- fragile nails
- hair loss
- swelling, e.g. around eyes
- dry skin
- constipation

RADIOACTIVE RADIATION AND IODINE

In connection to the nuclear power plant accident in Japan, and the threat of radiation exposure of people, iodine necessity has been mentioned many times. We are now going to try and explain the connections.

If we suppose that in case of radiation exposure on human organism, all of its parts would be exposed including trace elements and other minerals. Then, the degree of radiation exposure would not be mortal.

It has been told that the thyroid absorbs iodine out of blood circulation and it is its reservoir. Based on this, thyroid absorbs all of the radiation exposed iodine into itself. Radiation exposed iodine would not be dangerous for the body, however, concentrated into thyroid can lead to its destruction and later even cancer and death.

To prevent this, it is necessary to supply „new“ iodine into an organism. Interfusing the new and the old iodine in the organism, the degree of radiation would reduce. Thus, the possibility of a thyroid radiation lowers significantly.

In case of radioactive radiation, the gland is the first organ which succumbs to the radiation. Gland is the unique organ in human body which has the only function in the body – to process the only element – iodine. This proves iodine to be significant for human organism. Not other element has its „own" gland!

HOW AND WHERE TO GAIN SUFFICIENT AMOUNT OF IODINE FOR HUMAN ORGANISM, AND SO SECURE ITS GOOD HEALTH CONDITION

Veľmi vhodnou alternatívou je výživový doplnok, ktorý sa predáva vo svete, a na Slovensku prostredníctvom lekární pod obchodným názvom JODIS KONCENTRÁT.

IODINE

Nutrition Supplement

THE CHARACTERISTIC OF IODINE CONCENTRATE

IODINE CONCENTRATE is a nutrition supplement which provides enough iodine for human organism. Over the world, it is used as an ingredient to mineral waters, nonalcoholic drinks, food products, in animal husbandry as a food supplement for animals, crop production, in health care for production of physioterapist solution, in balneotherapy and production of pharmaceuticals.
THE USE OF IODINE CONCENTRATE

By drinking, straight from the bottle, by adding it into water or other drink, through groceries, spreading it into the face skin, extremities joints, spine, adding to the cosmetic products, or baths – 0.5 litre for a bath.

DOSAGE OF IODINE CONCENTRATE

Daily dosage of iodine, based on legal regulation of SR is 40μg - 180μg (infants and up). 1 millilitre of IODINE CONCENTRATE contains 20μg (20 mikrograms) of iodine. Average recommended dose of IODINE CONCENTRATE for drinking is a full tea spoon per day, which is approximately 4 ml or about 80 μg of iodine, i.e. deficiency that we are lacking.

CATEGORY OF EFFECTIVE SUBSTANCES AND STRUCTURE OF IODINE CONCENTRATE

IODINE CONCENTRATE is made of water and organic compound of iodine - KI, NaI, KIO3, NaIO3 Thanks to the special technology of production – patent protected in a number of advanced economies in the world – attributed „biologically active iodine“. Its uniqueness lies in its liquid form, in which iodine is indestructible and the most acceptable for human body. Moreover, its use cannot cause the overdose of iodine!

IODINE CONCENTRATE is being manufactured in accordance with the regulation of committee (ES) No. 1170/2009 from 30. November 2009, amending and supplementing directive of European Parliament and Council 2002/46/ES and the regulation of European Parliament and Council (ES) No. 1925/2006, regarding lists of vitamins and minerals and their forms which can be added to groceries and nutrition supplements!

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USEFUL ADVICE

1. IODINE CONCENTRATE cannot be mistaken for pharmaceutical, the existing disease cannot be anticipated to be healed, neither in the space of a short period of time!
2. IODINE CONCENTRATE is for a long term, daily usage, otherwise the effect can be reduced. The patience and persistence is necessary. Positive results will appear.
3. What can be expected – determine in time and if you are persistent and have understood the importance of iodine for human organism, you will realize that you feel better, sleep better, feel calm, zest for life, the ailments can be healed, you will not be ill for longer time, etc.
4. IODINE CONCENTRATE can be used in any age. However, the sooner, the better. The current condition of your organism can be improved.
5. Thanks to the character of IODINE CONCENTRATE the overdose of iodine cannot be done.
6. IODINE CONCENTRATE is recommended for pregnant women for a healthy development of an unborn baby.
7. In case of any doubts, if you are allergic to iodine or you suffer from a thyroid gland disease, consult the usage of IODINE CONCENTRATE with your doctor.