International Journal of Research
Available at https://edupediapublications.org/journals
p-ISSN: 2348-6848
e-ISSN: 2348-795X
Volume 04 Issue 06
May 2017

Health Risks from Drinking Demineralized Water

Vijayant Kumar (A.P)
Department of Applied Sciences
GJGI
Email: dhimanvijayant@gmail.com

The composition of the water varies in large part from local geological conditions. Neither groundwater nor surface water has always been chemically pure H2O, since water contains small amounts of gas, minerals and organic substances of natural origin. Total concentrations are considered to be of good quality dissolved substances in fresh water can be hundreds of mg / l. Epidemiology Thanks and advances in microbiology and chemistry since the 19th century, many pathogenic pathogens have been identified. Knowing that water may contain components that are undesirable is the starting point for setting guidelines and regulations for the quality of drinking water. Acceptable maximum concentrations of inorganic and organic substances and micro-organisms have been established internationally and in many countries to ensure the safety of drinking water. The potential effects of water completely deminarlised is generally not taken into account, since this water is not found in nature, except perhaps for the rainwater and ice that form naturally. Although rainwater and ice are not used as common drinking water sources in developed countries where drinking water regulations have been developed, they are used by individuals in some places. In addition, many natural waters are in many weak or soft minerals (low bivalent ion content), and hard waters are often artificially softened consciousness of the importance of minerals and other useful ingredients in drinking water Has existed for thousands of years, mentioned in the Vedas In ancient India, In the book Rig Veda the characteristics of good drinking water as follows describes: "Sheetham (cold to touch), Sushihi (clean), Sivam Nutritional value, necessary minerals and trace elements a) Istham (transparent), Vimalam Lahu Shadgunam (its acid-base balance should be within normal limits) "(1). This water may contain undesirable substances acquired in the guidelines and regulations less attention, but in recent decades a greater awareness of the biological value of water is produced. Artificially demineralized water produced, first distilled water and later deionized or folding on the osmosis of treated water were mainly used for industrial, technical and laboratory purposes. These technologies were applied intensively in the treatment of drinking water in the 1960s, as limited sources of drinking water with increasing water needs resulting from population growth, living

standards, development Industry and mass tourism, could not meet in some areas of coastal and inland waters. Water demineralization was necessary, where the primary or only abundant source of water is brackish mineralized water or sea water. Drinking water was also responsible for ships and ships of concern. First, these methods of water treatment are not used elsewhere, as they were technically demanding and expensive.

DETERIORATED OR LOW MINERAL WATER CONSUMPTION HEALTH RISKS

Knowledge of the effects of demineralized water consumption is based on experimental and observation data. Experiments have been carried out.Laboratory animals and human volunteers and observational data have been obtained from populations fed with desalinated water, drinking individuals by reverse osmosis, demineralised water treated and infants drinks prepared with given distilled water. Since limited information theses studies are available we should also find out the results of epidemiological studies looking at where were the health effects of people compared to low (mineral) mineral water and water rich in minerals. Demineralised water is remineralized Des Beens is also an extreme case of low mineral or soft water seen as it is that little water equivalent of dissolved calcium and magnesium minerals because it contains, are the greatest contributor to the hardness. The adversary can the consequences of the low consumption of mineral water as are discussed in the following categories: • Direct effects on intestinal mucosa, metabolism and mineral homeostasis or other body functions. • Little or no intake of calcium and magnesium from mineral water to low. • Low absorption of other essential elements and trace elements. • loss of calcium, magnesium and other essential elements in prepared foods. • possible food intake increase toxic metals.The direct effects of low-mineral happy on intestinal mucosa, metabolism and mineral homeostasis or other functions of the distilled body and the mineral water happy happy (TDS <50 mg / l) may adjusted flavor characteristics negative for the Consumer can Who with time. This water reported less thirst-quenching (3). Although these health effects should not be considered, should you be considered as if for humanconsumption happy with the relevance of low-mineral Considerant. A bad organoleptic and thirst quenching properties, the amount of water consumed can influence gold because other people may view fewer sources of water satisfactory. Williams (4) who introduces distilled water into the intestinal abnormal exchange caused in rat epithelial cells is possible due to osmotic shock. BUT conclusions La Memê are not reached by Schumann et al. (5) in a recent study, based on 14-day experiments on rats. Histology showed no signs of erosion, ulcers or inflammation of the esophagus, stomach and small intestine. Modified the secretory

function in animals (ie increased secretion and acidity of the gastric juice) and muscle tone of the modified stomach was in the WHO trials (3) Reported data Currently available clearly have a direct negative effect of low mineral found in the happy water on the stomach's intestinal mucosa.Little or no intake of calcium and magnesium from mineral water to low Calcium and magnesium are essential elements of both. Calcium is an essential part of the bones and teeth business. It also plays a role in neuromuscular excitability (which is, it decreases), proper functioning of the myocardial conducting system, cardiac muscle and contractility, intracellular information transmission, and blood coagulation capacity . Magnesium plays an important role as a cofactor and activator of over 300 enzymatic reactions, including glycolysis, metabolism of ATP, Transport of elements, such as sodium, potassium, calcium and through membranes, protein synthesis and nucleic acids, neuromuscular excitability and muscle contraction. Although drinking water is not the main source of our intake of calcium and magnesium, the importance of outweighing the additional health of these elements of the nutritional contribution expressed in drinking water in proportion Of the total daily intake of this article may even ICTS in industrialized countries, in terms of calcium and magnesium malnutrition, may not fully compensate for the lack of calcium and especially magnesium in drinking water.

Possible increase in ingestion of toxic metals

1.) subsequent leaching of metals from materials resulting in contact with water and happy metal increased in drinking water, and 2) lower protection (antitoxic) Capacity: increased risk of toxic metals can Be provided in two ways by low mineral water are low calcium water and demineralised water magnesiumLow is unstable and therefore very aggressive, this depends on the materials in contact with Which. This water more easily dissolves certain metals and organic substances from pipes, coatings, storage tanks and containers, pipes and being incapable white with toxic substances in the formation of low-absorbable complexes and therefore Reduce adverse effects.

Current recommendations

Minerals that should in demineralised water. For example, the effect of 20 to 49-year-old alcohol in women's water health other than hardness of two cohort epidemiological studies (460 and 511 women) in four cities of South Siberia (55, 56) was. Water in city water A has the lowest amount of calcium and magnesium (3.0 mg / l calcium and 2.4 mg / l magnesium). Water in town B has slightly higher levels (18.0 mg / l of calcium and magnesium 5.0 mg / l). The highest values were in town C (22.0 mg / L calcium and 11.3 mg / l magnesium) and common D (45.0 mg / L calcium and 26.2 mg / l magnesium). Women in cities A and B

changed cardiovascular more likely to live showed (as measured by ECG), high blood pressure, somatoform dysautonomy, headaches, dizziness and osteoporosis (as measured by radiolabel absorptiometry X) with respect to these cities C and D these results. Suggest that the minimum drinking magnesium should be 10 mg / l and the minimum calcium should be 20 mg / L instead of 30 mg / L, as recommended in the WHO 1980 report (3). Based on currently available data, various researchers have suggested that the following quantities of calcium, magnesium and hardness of sound water in drinking water: • for magnesium, a minimum of 10 mg / L (33,56) and an optimum of about 20-30 mg / L (49,57); • for calcium, at least 20 mg / L (56) and an optimum of about 50 (40-80) mg / L (57, 58); • For total hardness of water, the sum of calcium and magnesium shoulds is 2 to 4 mmol / l (37, 50, 59, 60). In theory, the concentrations of minimal or no adverse health effects observed. The maximum beneficial health or protective effects Drinking water occurs Appeared to the optimum desirable concentrations of gold estimated. The recommended magnesium levels were they were based on effects on the cardiovascular system, while exchange in calcium metabolism and bone formation as a basis for the recommended calcium levels was used. The upper limit of the optimal hardness series was obtained from the data showed that the higher risk of gallstones, kidney stones, urinary calculations, osteoarthritis and arthropathies in water-fed populations of hardness greater than 5 mmol / L long-term admission of drinking water was to estimate the thesis of the concentrations considered. For the short-term therapeutic indications of certain waters, higher concentrations of these elements are considered.

CONCLUSION

Potable to minimal water requirements for certain essential minerals (and other components, such as carbonates). Unfortunately, over the past two decades, little research that can be useful or protective effect with has-been drinking substances. The emphasis was on the toxicological properties of the impurities. Yet studies-some experiments must define the minimum essential elements of TDS of happy gold in drinking water, and some countries have included requirements or guidelines for certain substances in their drinking water regulations. The result can not only where drinking water by desalting is obtained (otherwise sufficient remineralization) when the target treatment also at home or central water treatment reduces the essential mineral levels and a small bottle of mineral water consumed. Drinking water by desalination MADE is stabilized with minerals, this water is demineralized so generally not the case due to household treatment. Even when stabilized, the final composition of some waters may not sufficiently in terms of providing good health benefits. WHEREAS predominantly deionized water with

calcium (lime), are supplemented, or other carbonates, they may be deficient in magnesium and other trace elements, such as fluorides and potassium. In addition, the amount is added to calcium based, are there any technical considerations (eg, which reduces aggression) instead of a health problem. Perhaps none of the types of remineralization commonly used can be considered optimal water not all components contain useful ICTs. Ongoing stabilization methods are mainly used to reduce the corrosive effect of demineralised water. National and international authorities Authorities responsible for drinking water quality standards Should consider a desalination water treatment, the slightest indication Happy falling elements such as calcium and magnesium and TDS. If additional research is needed to meet the guidelines, the AUTORITES promotion should focus on research in this area to develop the health benefits. If the guidelines for substances have found that water should be demineralised AUTHORITIES should also ensure that the guidelines apply the uses of home treatment devices and bottled water.

References

1. Sadgir P, Vamanrao A. Water in Vedic Literature. In: Abstract Proceedings of the 3rd international Water History Association Conference(http://www.iwha.net/a_abstract.htm), Alexandria: 2003.

2.Guidelines on health aspects of water desalination. ETS/80.4. Geneva: World Health Organization, 1980.

3.Robbins DJ, Sly MR. Serum zinc and demineralized water. Am J Clin Nutr 1981; 34: 962- 963.

4.Yang CY, Cheng MF, Tsai SS, et al. Calcium, magnesium, and nitrate in drinking water and gastric cancer mortality. Jpn J Cancer Res 1998; 89: 124-130.

5.National Institute of Public Health. Internal data. Prague: 2003.

6.Payment P, Franco E, Richardson L, et al. Gastrointestinal health effects associated with the consumption of drinking water produced by point-of-use domestic reverse-osmosis filtration units. Appl Environ Microbiol 1991; 57: 945-948.

7.Kozisek F. Biogenic value of drinking water. (In Czech.) PhD thesis. Praha: National Institute of Public Health, 1992.