
COLLOIDAL MINERAL NUTRIENTS AND HEALTH HABITS -A REVIEW

Pawan Malik*

Minkashi Verma*

ABSTRACT

Mineral supplements enhance in retention of nutrients and metabolic rate with a variety of biochemical activities sustaining nutritional status¹. Depletion of minerals in our foodstuffs with the use of commercial fertilizers increase in malnutrition and degenerative metabolic diseases. Another factor is the excess of any one mineral which may causes the deficiency of another mineral due to their competence for absorption. The absorption of colloidal minerals depends on various factors which include chemical stability, solubility and are better bioavailable than minerals to avoid life-threatening imbalances. Commercial mineral supplements are available in many varieties in solid and liquid forms and they are highly absorbable when taken with food due to their small surface area, low intestinal motility and relative charge². A study has been made on colloidal mineral particles make it effective dietary supplements. These colloidal supplements contain powerful antioxidants which can be easily metabolized by human. These micronutrients and micro minerals dietary supplements help in improving efficiency in children and adolescents. An attempt has been made to study various colloidal dietary supplements and how these are helpful in growth and metabolism of body. In India, various metabolites are available in market. Need to develop awareness among people, its cost, supply and beneficial to people. Use of these colloidal dietary supplements continues to have an impact in reducing the prevalence of micronutrient deficiencies.

Keywords: Colloidal nature, Dietary supplements, Health habits, vitamins, growth

* Department of chemistry. SLBawa DAV College .Batala (Dist.Gsp) Punjab. INDIA

INTRODUCTION

In today's era, it is a fact whatever we eat that fruits, vegetables and grains lack essential minerals required for perfect health. In fact, most of the minerals are depleted due to poor agricultural practices over decades, overuse of chemicals drugs which inhibit the effect of absorption of minerals, unnatural over-processing of foods, overuse and high carbohydrate diet which are unfit for our health results into mineral deficiency in our diets³. Commercial fertilizers in farming industries like NPK helps in growing size crops and provides few minerals which are required for good health. In spite of these few minerals our body needs about 80 essential minerals also for proper nutrition. Vitamins, enzymes and other nutrients are not absorbed properly and broken down without minerals⁴. For balanced diet minerals should be utilized fully in our body so vitamins are worthless without minerals. Organic colloidal minerals contain decomposed plant materials and are rich in carbon and hydrogen atoms due to the presence of humic clays are healthier. Natural disasters like volcanoes, tsunamis can overcome the mineral deficiency by replenishing and recycling the soils because ocean water contains minerals and nutrients which bring back to crop lands used for farming.

There is a need of effective supplements with high quality boosting our energy levels by maintaining a perfect bio-electrical balance to perform essential biological functions. These are ultra-fine particles having size approximately 0 .0001 micron in diameter and are non-toxic, water soluble. Supplementation with minerals reduces risk of diseases such as arthritis, streghnthen immune system, diabetes, cancer, and hypertension. The effectiveness of colloidal minerals is due to the fulvic acid, a powerful multi-directional antioxidant and humic nutrients which are naturally occurring supplements found in soil as they are in bio available form to be used by cells. Many marketing companies contains small amount of fulvic acid in their products containing colloidal minerals which rejuvenates cell life within our systems. High refined nature of this acid consists of small molecules which are easily penetrating in human tissues. The concentrations of micronutrients in fulvic acid containing mineral products contain additional nutrients which are not available directly from our regular food diet. It acts as catalyst to enhance metabolism and cell respiration⁵. Now-a-days, advanced technologies and better recovery methods arises the capability to recover even small amounts of minerals from waste flows. From the extraction methods minerals can be recovered from waste materials also. VTT has developed extraction methods for metals and minerals from recycling waste materials⁶.



Figure-1 shows Fulvic minerals
(Source-Water for Health Ltd)

APPLICATIONS OF DIETARY SUPPLEMENT

Colloidal Mineral Supplements- These supplements are obtained by plant deposits which are processed by various advanced techniques to reduce the level of toxic heavy metals such as arsenic, cadmium, mercury, lead⁷ and making minerals water soluble and highly absorbable. Multivitamin/multiminerals proves a boon to our health system by resisting many diseases like invasive breast cancer in older women on the basis of recent researches⁸. They are commercially available due to their unique applications and properties and marketed as dietary supplements for many health purposes⁹ and protection of degenerative diseases. A supplement can help by eating a variety of healthy foods. The consumption of multiminerals on daily basis is more beneficial for healthy lifestyle than multivitamins by acting as catalyst in various physiological processes.

Full Spectrum Supplement



Figure-2 shows full spectrum minerals

This multimineral supplement enhances work functions of cells, growth and metabolism by fastening the rate of chemical reactions in our body. It is enriched with high calcium and vitamin D and has high energy content.

Natural Colloidlife Trace Mineral supplement:

It contains traces of electrolytes which are ionic in the form of 72 elements such as Vanadium, Phosphorous, Potassium, Selenium, Silica, Boron, Sulphur, Rhodium, Cadmium, Gold, Tin, Titanium, Cesium etc. It boosts energy due to the presence of traces of minerals which are not directly available in our foods and are not replenished.



Figure 3 shows colloidlife trace minerals

Biocitrate supplement:

It contains a wide range of essential vitamins and minerals which provides health benefits in a balanced formulated manner. It is specially designed to maintain nutritional absorption of minerals in our body and product is available in the form of biocitrate strontium, biocitrate magnesium, biocitrate manganese.



Figure 4 shows Biocitrate Dietary Supplement

Double X Vitamin mineral supplement:

It is complete multivitamin which help to fill our nutritional gaps with top quality natural plant ingredients. Active ingredients are plant concentrate that help in support the body This phytonutrient supplement has a wide range of applications which promotes overall growth of human body. It is obtained from plant concentrates and contains alfalfa concentrate, mixed tocopherols, apple extract powder, asparagus powder, Folic acid, blueberry powder, selenium, copper, grape extract, rosemary extract, broccoli dehydrate, and horseradish dehydrate, vitamin A,D E and fruit nutrients and provides health protection in all ways:

- Provides support system to cardiovascular health
- Beneficial to brain,skin,bones
- Supports for a strong immune system
- Improves vision and boosting energy levels of cells.
- Help in cellular growth and keep maintain connective tissues
- Due to presence of alphalipac acid, broccoli dehydrate, horseradish extract, help in maintain healthy brain.



Figure 5 shows double X vitamin-mineral supplement

Daily Free supplement:

It is all round multivitamin alternate to people with sensitive to iron, yeast, sugar or alfalfa. Active ingredients are packed with vitamins, minerals and phytonutrients. This supplement provides a wide range of nutrients in the form of multimineral and multivitamins containing 12

vitamins and 7 minerals. It contains watercress concentrate which is a rich source of the carotenoids lutein and β -carotene¹⁰ reduces the risk of cancer by reducing damage to DNA¹¹.



Figure 6 shows daily free supplement

Tangy Tangerine 2.0 supplement:

It is another multivitamin and plant derived multimineral complex with essential fatty acids and amino acids having broad range of applications which provides maximum benefits and optimal health to our health system. It includes advanced technology which ensures nutrient absorption in our body¹² and is non genetically modified product. . It contains natural antioxidants. It is widely used in various application such as support healthy immune system, support cardiovascular system, control healthy digestive system. It also maintains healthy blood sugar levels. Ingredients such as carbohydrate, sugar, sugar, vitamins, fruits and vegetables, zinc, copper, potassium, choline, inositol, bioflavonoid are present in this nutrient supplements



Figure 7 shows Tangy Tangerine supplement

Oxylife colloidal mineral supplement

This supplement is specifically designed to support basic requirement of body systems by enhancing metabolism. It provides formulated system to regulate blood pressure, supports immune system and protein synthesis with easy assimilation in our body due to its ultra fine particle size¹³.



Figure 8 shows Oxylife mineral supplement

REFERENCES

- [1] Kuang, P; Wu W; Lang S (1993) Trace elements and ischemic cerebral vascular disease. Ann NY Acad Sci. Mar 15; 676,340-1.
- [2] Food and Nutrition Board, Institute of Medicine. Dietary Reference Intakes. (2000) Washington, DC. National Academy Press,
- [3] www.nowfoods.com
- [4] www.naturalnews.com
- [5] www.fulvicminerals.org
- [6] www.sciencedaily.com
- [7] S. Wassertheil-Smoller, A. P. McGinn, N. Budrys, R. Chlebowski, G. Y. Ho, K. C. Johnson, D. S. Lane, W. Li, M. L. Neuhouser, J. Saquib, J. M. Shikany, Y. Song, C. Thomson. (2013) Multivitamin and mineral use and breast cancer mortality in older women with invasive breast Cancer in the women's health initiative. Breast Cancer Research and Treatment,
- [8] www.colloidalminerals.org
- [9] www.sprayitaway.com
- [10] O'Neill ME, Carroll Y, Corridan B, et al. (2001) A European carotenoid database to assess

carotenoid intakes and its use in a five-country comparative study. Br J Nutr; 85:499–507

[11] www.amway.com

[12] <http://youngevity-90forlife.com>

[13] www.oxylifeco.com