The key minerals of your SwissMountain

Minerals and traces thereof are necessary substances for life and many of these are found in SwissMountain. (See specifics under ‘Mineralization’). Because the human body cannot produce these materials, they must be provided by daily nourishment.

Depending on which rock formation mineral waters pass through, they contain different mineral and trace element compositions. Interestingly, mineral water remains in the earth’s interior for a very long time where it attains its mineralization. In Switzerland, it is not uncommon for extracted water to be thousands of years old.

KEY MINERALS

Calcium: Calcium is important to build bones and teeth, but also for other tissues. Long-term calcium deficiency can lead to osteoporosis. Muscle activity and transmission of nerve signals also relies on calcium.
It is also necessary for blood coagulation and regulates heart activity. Calcium deficiency increases the risk of high blood pressure and heart attack.
Hormone secretion is regulated by calcium, and it is also used in enzyme production.

Together with **magnesium**, calcium provides ‘electricity’ for the heart.

Incidentally, tap water contains little or no calcium.

Magnesium: Magnesium is essential for bones and cells, epecially the muscular cells. It helps to maintain the muscular and nervous equilibrium. It is also used for building bones and tendons and in the generation of many enzymes.

Together with **calcium** (Ca++), magnesium provides ‘electricity’ for the heart.

Magnesium is also useful in fighting osteoporosis and kidney stones.

Sodium: Sodium is essential for the exchange of water between the cells and the extracellular medium. It is also important for the functioning of muscles, enabling contraction.
Together with **chlorine**, sodium forms our normal salt, used to flavor our regular diet. To determine the amount of salt in water, it is not sufficient to measure the sodium content, but also the amount of chlorine. While too much salt is unhealthy, none at all is equally unhealthy.

Nitrates: These may be found naturally in water or may enter water supplies through a number of sources including fertilizers and animal waste. High nitrate-containing water is a serious health concern for pregnant women and infants under the age of six months. Bacteria in the digestive tracts of infants may convert the relatively harmless nitrate to nitrite. In turn, the nitrite combines with the haemoglobin in blood to form methemoglobin, which cannot transport oxygen. This can lead to blue baby disease. To protect those at risk, the maximum contaminant level (MCL) for nitrate in water is 45 mg/l as nitrate or 10 mg/l as nitrogen. The MCL for nitrite is 1mg/l.

Chlorine: Together with **sodium**, chlorine forms our normal salt, used to flavor our regular diet. While too much salt is unhealthy, none at all can lead to serious bodily malfunctions, as well.

Chlorine and sodium are used to maintain osmotic pressure in the cells. As part of the digestive acids in the stomach, it plays an important role in digestion.
Chlorine is also used to purify water.

Sulphate (Sulfate): Any naturally occurring salt of sulfuric acid is referred to as sulphate. These occur naturally in groundwater combined with calcium, magnesium, and sodium as sulphate salts and have important health benefits including maintaining healthy skin and cells, detoxifying the liver, aiding digestion, increasing blood circulation, and reducing muscle cramps. However, sulphate content in excess of 250-500mg/l may give water a bitter taste and have a laxative effect.

According to the latest scientific evidence, the human body should not take in more than 240 mg of sulphate per day. However, this is easily exceeded with the consumption of pastries, vegetables, preserved meat/sausages, etc. Therefore, waters with low sulfate levels are preferred.

Hydrogencarbonate: Hydrogencarbonate helps to maintain the balance between the ‘acidic’ and ‘alkali’ tendencies in the body.

Traces elements: There are many trace elements in the various mineral waters including potassium and fluoride and certain metals (iron, aluminum, etc.)

Carbon dioxide: The tingling caused by the carbon dioxide gives a more refreshing effect on the pallet. Carbon dioxide also aids in digestion. Furthermore, it has a preserving effect in that it inhibits the growth of microorganisms. Thus, the water stays fresh and pure longer.

Today, carbon dioxide levels usually do not exceed 6 grams per liter.

What makes SwissMountain so pleasant is its relatively low carbon dioxide level, which is less than 3 grams per liter.

Note: The above outline can only give a very general overview of these minerals and their possible effects on the human body. It cannot and does not overrule the opinion of a doctor. If you are unsure about some aspects, or feel unwell, please seek medical attention