

**The Mineral Profile of Oravida Water**

The quality of mineral water is determined by the mineral profile of the source water. Oravida Water is sourced from the Otakiri Aquifer in the Bay of Plenty in New Zealand. This aquifer is located 1000 feet deep under the surface of the earth and was formed 1800 years ago by volcanic activity.

It takes 50 years for the water, which falls as rain, to seep down through the earth to reach this ancient aquifer. During this time, the water is filtered through thousands of layers of porous volcanic igneous rock where every precious drop is both purified and infused with the perfect concentration of life giving minerals.

The important minerals that are found in Oravida’s premium quality artesian mineral water are :

***Silica***Silica is the common name given to silicone dioxide (SiO2) which is naturally occurring as quartz and is a major component in sand in most parts of the world.

Silica helps support bone health in humans and as well as being important for the creation and maintenance of connective tissue. Regular consumption of silica supplements have shown positive effects on the strength and condition of skin, hair, and nails by preventing brittleness.

Medical research has identified that consumption of 10 mg/ day of silica enhances the excretion of aluminium from the body. Aluminium toxicity has been linked with Alzheimers, Parkinsons, Multiple Sclerosis and chronic fatigue. It has become standard practice in parts of Europe to administer high silica mineral water to patients suffering from these degenerative diseases to help improve their cognitive function.

The water from the Otakiri Spring, in Bay of Plenty, New Zealand contains natural silica levels of 89mg / litre which means that consuming a couple of glasses of this water every day may help to protect your long term cognitive performance.

**Calcium** The function of Calcium (Ca) in the human body is well understood. It is the most plentiful mineral found in the human body and is one of the most important minerals for good health. Calcium helps form and maintain strong healthy teeth and bones and deficiency in the diet may lead to osteoporosis. In addition to helping build bone and teeth strength, Calcium plays an important role in blood clotting, effective nerve function, muscle contraction and maintaining a regular heartbeat.

Researchers have confirmed that the human body can just as effectively absorb calcium from mineral water as it does from milk or other dairy products and so drinking mineral water is a good way of boosting dietary calcium, without the calories that are associated with dairy products.

***Magnesium***Like Calcium, Magnesium (Mg) is also an essential mineral for the human body, playing a key role in many biological processes through its function in enzyme activities.

Recent studies have confirmed the essential role magnesium plays in the prevention of cardiovascular diseases. Having an adequate intake of magnesium in the diet is important for preventing atherogenesis and inappropriate blood clotting, as well as for maintaining electrolyte balance and a host of other cellular, biochemical and physiological processes which are crucial to cardiovascular function and health.
 ***Sodium***

Sodium (Na) is most commonly known as salt and is well understood by most consumers to be a mineral that they should be seeking to reduce their intake of. A small amount of sodium is required for healthy functioning of the human body as it plays an essential role in fluid and electrolytes balancing. However too much salt in our diet is associated with an increased risk of raised blood pressure, which is a risk factor for heart disease, stroke and kidney disease. High sodium intakes have also been shown to increase calcium losses in urine, potentially increasing the risk of osteoporosis.

Some bottled waters contain sodium which has been added as part of water treatment processes. The sodium in Oravida artesian mineral water is naturally occurring and has been dissolved into the water from the volcanic rock of the ancient storage aquifer, it is not added to the water as part of any water treatment processes.

World Health Organisation guidelines are that water should contain less than 20 mg / litre of sodium, particularly if the water is going to be used for drinking by children or for mixing up with infant formula. Oravida’s water contains 12 mg / litre of sodium and so is well below this guideline and can be consumed daily without any concerns about it contributing to a high sodium diet.  ***Potassium***

Potassium (P) is very closely chemically related to Sodium, and so these minerals are commonly found together in many types of rock and find their way into mineral water during the natural filtration process.

Potassium is a very important mineral for the proper function of all cells, tissues, and organs in the human body. It is also an electrolyte, along with sodium, chloride, calcium, and magnesium. Potassium is crucial to heart function and plays a key role in skeletal and smooth muscle contraction, making it important for normal digestive and muscular function.

***Chloride & Sulphate***

All naturally occurring mineral waters contain some quantity of Chloride (Cl) and Sulphate (SO4) depending on the mineral profile of the rock in the local region surrounding the aquifer.

High chloride and sulphate levels in water can indicate the use of water treatment chemicals in bottled water. Oravida’s artesian mineral water contains very low levels of both chloride and sulphate which are well below the World Heath Guidelines for drinking water for children and for mixing infant formula and which indicates the purity of the water source.