

## **Balneology – the art and science of natural hot spring bathing**

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Balneology is the scientific study of the therapeutic benefits of naturally occurring mineral waters. In Australia, this science is not very well known, and is even less seldom practised. However, throughout Europe and Japan, balneology and hot springs therapy is very much a part of routine medical care. Medical prescriptions are given by licensed doctors for the treatment of a wide range of conditions, and bathing in mineral waters as a part of preventative medicine is widely recognised and encouraged.

Hot spring soaking has a deep and far reaching tradition in North America, starting with the indigenous North American tribes who considered hot springs to be “power spots” in nature. Native cultures universally have utilised natural waters for healing, purification ceremonies, sacred gatherings, and tribal meetings.

Peninsula Hot Springs are filtration hot springs. The water that surfaces is estimated to have been deep within the Earth for more than 10,000 years. The water rises from 637 metres below The Cups at Rye. By the time it comes to the surface the temperature is 47°C. The temperature of the pools varies from 42°C to 36°C depending on the pool and the time of the year.

Peninsula Hot Springs are classified as “true mineral springs”, with dissolved solids measuring 3800 mg/l ( PPM ), based on the assessment conducted by the Institute of Geological and Nuclear Sciences in New Zealand.

Peninsula Hot Springs are sodium chloride bicarbonate hot springs, with a ph level of 6.8. The alkalinity is primarily the result of the potassium, calcium, magnesium, and sodium ions.

### **Hot Springs Therapy: Mineral Content**

In addition to the value of the trace minerals found in most hot springs, and the stimulating benefits of highly mineralised waters, balneotherapists generally agree on the following observations:

Bathing in bicarbonate water assists opening peripheral blood vessels, improve circulation to the body’s extremities and can help address hypertension and mild atherosclerosis. Some researchers believe that bicarbonate baths also assist cardiovascular disease and nervous system imbalances.

Mineral springs naturally rich in chlorides, in amounts between .5 to 3%, are considered by some researchers to be beneficial for rheumatic conditions, arthritis, central nervous system conditions, post traumatic and postoperative disorders. Peninsula Hot springs contain 1432 PPM chloride content.

Boron builds muscle mass, increases brain activity and strengthens bones.

Peninsula Hot Springs contains: 1.3 PPM boron.

Magnesium converts blood sugar to energy and promotes healthy skin.

Peninsula Hot Springs contains: 90 PPM magnesium.

Potassium assists in the normalization of heart rhythms, assists in reducing high blood pressure, helps to eliminate body toxins and promotes healthy skin.

Peninsula Hot Springs contains: 64 PPM potassium.

Sodium and natural salts assist with the alleviation of arthritic symptoms, and may stimulate the body's lymphatic system when used in baths. Peninsula Hot Springs contains: 868 PPM sodium.

### **Detoxification**

European medical doctors have conducted research into thermal therapy, and have found that: Hydrostatic pressure in the body is increased which results in increased blood circulation and cell oxygenation. The elimination systems of the body are thus stimulated, improving the body's capacity to detoxify. The body's metabolism is stimulated, resulting in improved digestion. A program of three to four weeks of regular thermal bathing can assist in the normalisation of endocrine glands and assist the automatic nervous system.

Therapy using mineral water spas combined with massage is being used increasingly for work-related diseases such as back problems, stress and tinosnavitus. It is also proving very effective for rehabilitation after accidents. Rheumatism, arthritis and gout sufferers find great relief through spa therapy as do many heart disease patients.

The Japanese Environment agency classification of mineral waters shows that the sodium chloride in the Peninsula Hot Spring waters has been shown to be effective for post-operative rehabilitation, rheumatism, arthritis, hypertension and infertility.

## **Getting the most out of Hot Springs bathing**

Peninsula Hot Springs founder Charles Davidson's has traveled the world researching hot mineral springs. He recommends the following procedure to maximise the efficacy of bathing at Peninsula Hot Springs . . .

- 1.** Before entering pools take a shower. It is important to thoroughly clean yourself before entering the pools in order to fully appreciate the bathing experience of relaxation, contemplation and socialisation.
- 2.** Before taking a hot spring bath, drink plenty of water in order to promote perspiration. Remember to remain hydrated throughout the bathing experience. Water fountains are provided at the pools or bring your bottled water (no glass please).
- 3.** Upon entering bathing pools adjust your body gradually to the hot spring. Pour the hot spring water over extremities such as toes and fingertips and then towards the heart. This step dilates the blood vessels of the surface of your body, which prevents dizziness later on.
- 4.** Taking a long bath in hot water causes a rise in blood pressures and increased heart rate. Bathe at a temperature of around 40C until you feel sweat lightly on your forehead, then sit outside of the bath tub for a break and re-enter once you cool down a little. Remember to keep drinking water. Bathing for more than 15 minutes without taking a break is not recommended. The key is to listen to your body.
- 5.** As the beneficial mineral adsorption of the hot spring water can go on for three hours after leaving the pools, it is recommended you do not rinse your body after taking a bath.
- 6.** After taking the bath your body gets tired even though you feel refreshed. It requires two to three hours until blood pressure stabilises, therefore take some time to rest, ideally for at least 30 minutes. Allow a cool down period of 20 to 30 minutes wrapped in your bath sheet – recline in the pool-side lounges and soak up the unique atmospherics of our coastal dune surrounds. Be careful not to cool your body down completely. Don't forget to drink plenty of water again to avoid dehydration.
- 7.** For maximum health benefit bathing three times a day is recommended.

- Peninsula Hot Springs is open seven days a week, 9am to 9pm at Springs Lane, Rye (Melway Ref 169 A11). Phone 03 5950 8777 or visit [www.peninsulahotsprings.com](http://www.peninsulahotsprings.com)