



# **CET Cryo Spas**

# Four Basic Factors

CET Cryotherapy relies on four basic factors to achieve a therapeutic effect, namely **Turbulence**, **Temperature**, **Pressure and Salinity**.

#### **Turbulence**

Aeration of the water has a two fold effect. When the body loses heat through convection as well as conduction the temperature drop will be much greater and be achieved much faster. Wind chill is a good example.

Secondly, the massage effect influences dispersal of fluids and can also stimulate the muscle which is particularly beneficial for certain conditions such as quadriceps contusion.

### **Temperature**

The application of cold decreases pain and muscle spasm and, also, reduces tissue metabolism, blood flow (initially), inflammation, edema, and connective tissue extensibility.

Low temperature (1 C to 14 C) hydrotherapy is a relatively new concept in therapeutic modalities and can provide significant pain relief with a low side-effect profile.

#### **Pressure**

The greater the depth of the water the greater is the physical pressure exerted on the tissues which, again, aids in the dispersal of accumulated fluids.

## **Salinity**

The salinity of water has an impact on the healing process. Higher concentrations of salt have a greater drawing effect thereby influencing the dispersal of fluids accumulated around the injury.

Additionally, salt has a positive effect in helping to cleanse cuts and wounds by aiding in the control of infection.

### References:

- 1. The Uses of Cryotherapy in Sports Injuries; Meeusen R., Lievens P. 1986
- 2. Cryotherapy in Sports Medicine; Swenson C., Sward L., Karlsson J. 1996
- ${\it 3. Cryotherapy for Acute Ankle Sprains; Bleakley CM., McDonough SM., MacAuley DC., Bjordal J. 2006}\\$
- 4. Cryotherapy Theory: Technique and Physiology; Knight K. 1985

