

F a c t s

HOT TUBS/SPAS WATER QUALITY AND SAFETY

Risk

Warm water and the presence of organic material can promote the growth of at least two harmful bacteria in the hot tub/spa environment.

Pseudomonas bacteria commonly cause skin infections resulting in irritations that last for several days. Legionnaires bacteria inhaled with water droplets can cause serious respiratory illness.

Prevention

Proper disinfection levels destroy bacteria, viruses, and impurities from bathers. The cleaner the water is maintained, the more disinfectant is available to kill organisms. Therefore removing visible dirt, maintaining the filter, showering before use and frequent water replacement is very important. The following formula provides a guide as to when to dump spa water:

(Volume of water in litres) divided by (10 times the max. number of users per day) equals (the number of days between draining)

Chemistry

Bromine and free available chlorine levels should be maintained at a minimum of 5.0 parts per million in conjunction with a pH in the range of 7.2 to 7.6. The total alkalinity should range from 80 to 120 parts per million with a calcium hardness level of 150 to 200 parts per million. If the difference in the total and free available chlorine, which is called combined or chloramines, exceeds 0.5 parts per million, shocking to 10 to 20 parts per million is appropriate. (Keep in mind high disinfectant levels can result in false test readings by bleaching out the colour of the disinfectant reagent or altering the colour of the pH indicator.)

— Health & Environment Facts —

Safety

Be aware that body overheating can occur. Water temperatures should not exceed 40° degrees Celsius (104° Fahrenheit) and prolonged immersion should be avoided. If possible avoid using a spa alone since overexposure can cause fainting. If you are pregnant or have a known medical problem such as heart disease, high blood pressure, or diabetes, consult with your physician before using a spa. Avoid using a spa if you are taking medication that can cause drowsiness or affects blood pressure, or if you are under the influence of alcohol.