

# National Swimming Pool Foundation®

## Reports on “Year 1” Results of Hot Tub Immersion Study

Colorado Springs, CO (December 10, 2007))

The National Swimming Pool Foundation® (NSPF®) reports preliminary results from the two-year, “Hot Tub Immersion” study under the direction of Dr. Bruce Becker, Washington State University. Co-funded by the NSPF and twelve industry leaders, the current research program is progressing and “year 1” results were presented at the 2007 World Aquatic Health Conference (WAHC) on October 3, 2007 in Cincinnati, Ohio. The NSPF has funded \$819,226 in grants supporting six universities who have begun performing aquatic health-benefit research within the past three years. Dr. Becker's seminar, as well as many other researchers' seminars, may be viewed at [www.eProAcademy.org](http://www.eProAcademy.org).

**While there is a great deal of work underway on the Hot Tub Immersion study and other NSPF sponsored research, some of the findings show that warm-water immersion seems to have a significant effect on the autonomic nervous system. That effect seems to enhance the balance between parasympathetic (relaxation) and sympathetic components of the system. This is likely one of the major changes that create the “ahhh” when we feel the warm water effects of the spa. These changes were consistent across all subjects tested. Dr. Becker feels that it is very likely that that these nervous system effects have positive health-related implications. “To be able to obtain such a profound relaxation effect so quickly and so consistently was quite amazing to our research group,”**

he remarked. Dr. Becker went on to report that heart rate rises during warm-water immersion, but not during cool or neutral immersion. Peripheral circulation was very significantly enhanced during both the neutral- and warm-water immersions. This effect was far greater than could be explained by the rise in heart rate.

The NSPF board of directors approved the second year of the Hot Tub Immersion study and has awarded a grant of \$165,000 to **Dr. Becker and his co-investigator, Dr. Kasee Hildebrand, to continue the study on the effects of warm/hot water immersion upon the heart and respiratory system, also looking at to what extent relaxation occurs.** Dr. Becker will report complete findings of the two-year study at the 2008 World Aquatic Health Conference, scheduled for October 15-17, 2008, at the Crowne Plaza Hotel, Colorado Springs, Colorado. For more information, visit [www.nspf.org](http://www.nspf.org).

In 2007, the NSPF board voted to match dollar-for-dollar the pledged commitments made by twelve leading organizations who pledged \$80,500 per year for two years. **One hot tub manufacturer, Hot Spring Spas, donated three spas for the study, reducing the budget required to purchase the spas.** From 2004-2007, the NSPF funded a total of \$454,432 for aquatic health benefit research. For the year 2007-2008, five new grants were awarded, totaling \$384,540.

**The National Swimming Pool Foundation® (NSPF®) is a non-profit organization founded in 1965, dedicated to improving public health worldwide by encouraging healthier living through aquatic education and research.** The foundation is the largest funding source for grants to study aquatic health benefits in swimming pools and hot tubs.