Immune Response Improvement in Rabbits Treated with the Infratonic Stochastic Resonance Device
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Summary
The goal of this study was to investigate the effect of the Infratonic® therapy in the immune system of rabbits with a respiratory infection. Changes in body temperature and antibody levels were analyzed in two groups of 6 rabbits each, one group was treated with the Infratonic and the second group was the control. The results indicate that the Infratonic therapy helps to reduce fluctuations in body temperature and accelerates the immune response allowing the rabbits to recover faster from an infection.

Introduction
The Infratonic is a stochastic resonance device that emits low frequency acoustical signals that penetrate deeply into the body. The Infratonic was developed from the integration of the modern electronic technology and traditional Chinese medicine with the purpose to simulate the energy out-put of the Qigong Masters. This therapeutic device is devoted to regulate the flow in meridians promoting the circulation of Qi and blood and strengthening the body constitution.

The research conducted during this study shows that the Infratonic treatment improves the conditions of the rabbits while the control group was significantly slower in fighting the bacteria infection. This indicates that the Infratonic has a stimulating effect on the immune system.

Materials and Methods.
Animals. Twelve rabbits were used and divided into 2 groups of 6 animals each. One group was treated with the Infratonic device and the second group did not receive any treatment and was the control group.

Bacterial infection. A single dose of one milliliter of bacteria was injected into the bronchial area of each rabbit. Treatment started 24 hours after infection.

Treatment. Following the guidelines of point selection principles of traditional Chinese medicine, the acupoints Du 13 and Ren 17 were selected. Treatment was started on the Infratonic group 24 hours after injection of bacteria. The Infratonic device was used on these two points. Each point was treated for 15 minutes. For the first three days, treatments were twice per day, morning and afternoon. Thereafter, treatments were every day, once in the morning. Total treatment was 12 days.
Antibody analysis and body temperature. Blood samples were drawn from each rabbit to test for blood serum antibody concentration two days, seven days, 14 days, and 21 days after the initial infection. The body temperature measurements started before the bacteria injection at day 0, and were followed approximately every 24 hours until the end of the experiment and the rabbits recovered from the infection.

Results and Discussion
The body temperature of the Infratonic treated group and the control group changed after injection of bacteria as shown in Figure #1. The temperature rose rapidly during the first 24 hours, a fever resulting from a respiratory infection. From this figure we can see that, at a time of high fever, the initial application of the Infratonic resulted in a rapid initial drop in temperature, and that the temperature did not drop down too far. The relatively steady temperature in the treated group after the initial drop, without wild fluctuations indicates that the body's internal temperature regulation is functioning properly. This allows the body to sustain a strong self-defense. In the control group the temperature dropped very rapidly but rose again rapidly. This causes the defense ability of the body to be slow. Self-regulating temperature maintenance in the control group was poor throughout the first five days. The reduced fluctuation in body temperature of rabbits treated by Infratonic indicates strong immune response.

**FIGURE #1.** Average of rabbit body temperature in degrees centigrade. The blue line represents the group of rabbits receiving Infratonic treatment. The red line represents the control group.
The antibody levels in serum are very important indicators of the function of the immune system to defend against outside invaders. The blood serum antibody level rose much higher and much earlier in the Infratonic treated group than that of the control group as shown in Figure #2. After only two treatments, on day 2 the antibody level in the treated group had already increased by a factor of five over that of the control group. Even after three weeks, the control group hadn’t reached this antibody level. After seven days the antibody level of the Infratonic treated group was seven times higher than the control group. The highest difference was 8 times. These results show an accelerated immune response in the rabbits treated with the Infratonic.

**FIGURE #2.** Antibody levels average in two groups of Rabbits. Blue columns represent the average of a group of 6 rabbits treated with the Infratonic. The red columns represent the control group, a non-treated group of 6 rabbits.

In conclusion the results indicate that the Infratonic device does emit a signal with effects similar to those of the Qigong master in its physiology function. The Infratonic shows a very significant ability to strengthen the immune function.