

Research into the effects of vibration training on cellulite

Dr. Horst Frank, MD (dermatologist, allergy specialist) and resident dr. Birgit Moos, both working at the Sanaderm clinic in Bad Mergentheim, Germany, have undertaken this study in order to verify whether and how training on the Power Plate would affect cellulite.

The test subjects were divided into three groups. One group trained exclusively on the Power Plate, another performed additional cardio-exercises and the third group, serving as a control group, did not perform any training at all.

All of the subjects were tested and measured at the beginning of the study. The data compiled were their measure of cellulite, the VO₂-max (maximum oxygen volume used per minute during physical exertion), the circumference of their calves, posterior and upper leg as well as Biospace measurements such as body fluids, muscle mass, fat free body mass, total body weight and the fat percentage. All measurements were repeated after 3 and 6 months.

The results were as follows:

In the most important parameter (the degree of cellulite) **an average reduction of 25,68 percent** was achieved in the Power Plate group, after a total of **11 hours of Power Plate training** (in sessions of 10 minutes over a period of 6 months).

In the group performing additional cardio-exercises **the average reduction achieved was 32,30 percent**, after a total of **40 hours of training** (in sessions of 45 minutes over a period of 6 months).

In the control group no significant changes were observed.

Both in the Power Plate group and the additional cardio-group, a slight reduction in all of the Biospace measurements could be detected, however these changes were not significant. In the control group, though this was a very small number of people, a slight increase in Biospace measurements was observed, specifically in the fat percentage (av. 2,3 percent).

A relatively clear reduction in the size of the posterior, the major problem zone for cellulite, is most impressive in both the Power Plate group (around 3,17 percent) and the additional cardio-group (around 3,44 percent), while sizes remained practically unchanged with the control group.

In the VO₂max data a clear increase of about 7,69 percent was observed in the Power Plate group, which entails a measurable advance in physical fitness.

Cellulite is firstly an aesthetical problem. This is why the degree of cellulite should be considered the most important factor in judging the effectiveness of Power Plate training.

Reviewing the results of this research we consider the Power Plate an effective method to clearly diminish the degree of severity of cellulite without any negative side effects.

In the future variations on the exercises on the Power Plate will show whether it is possible to enhance the results even further.

Dr. Horst Frank

**SANADERM
Fachklinik für Hautkrankheiten, Allergologie
Löffelstelzer Straße 36
Bad Mergentheim
Germany**