

# Whole Body Vibration and Reduction of Cellulite

## Research Shows Exercising on a Whole Body Vibration Platform Helps Eliminate the Appearance of Cellulite

This research was conducted at the SANADERM Professional Clinic for Skin Disease and Allergology, Bad Mergentheim, Germany (May-November, 2004)

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### Study Conclusions:

In six months, the whole body vibration group exercising on Power Plate achieved a 25.7% reduction of cellulite on thighs and buttocks. The group exercised two to three times per week, in sessions of 8-13 minutes. The whole body vibration + cardio group achieved a 32.3% reduction of cellulite on thighs and buttocks, exercising two to three times per week in sessions of 8-13 minutes with whole body vibration, plus 24-48 minutes of cardio training.

These research findings reveal a new and exciting solution for fat loss and collagen remodeling. Finally, cellulite loss can be healthy, efficient, time-saving and fun, allowing whole body vibration users to maintain a youthful and lean, healthy look in a relatively short time and in just a few sessions per week.

### Introduction:

Cellulite is the dreaded “orange peel” or “cottage cheese” skin condition many women suffer from. The subcutaneous tissues are a web of connective tissue, where much of a woman’s body fat is stored. As the separate layers of tissue are connected to the skin by relatively inelastic fibers, the service of the skin can become dimpled and puckered when the fatty cells get enlarged. Contributing to the “mattress” effect is fluid retention, the storage of environmental toxins, hormonal factors, and lack of circulation. When circulation within this web of connective tissues becomes blocked, cellular waste stagnates, and these tissues harden as the skin loses its elasticity. The puckering or “mattress” effect is caused by this act of shriveling, dimpling and adherence of

the skin to tissues underneath. Specific areas that concern many women are the buttocks, thighs, calves and upper arms. Healthy solutions for reducing cellulite have been elusive, but this study suggests that Power Plate® training is effective. The German Sanaderm Clinic performed a six-month research project investigating the effects of whole body vibration training on cellulite.

Figure 1

Change in cellulite levels (after six months) for two whole body vibration groups. Cellulite was measured by evaluating the deposits of subcutaneous dimpled fat.

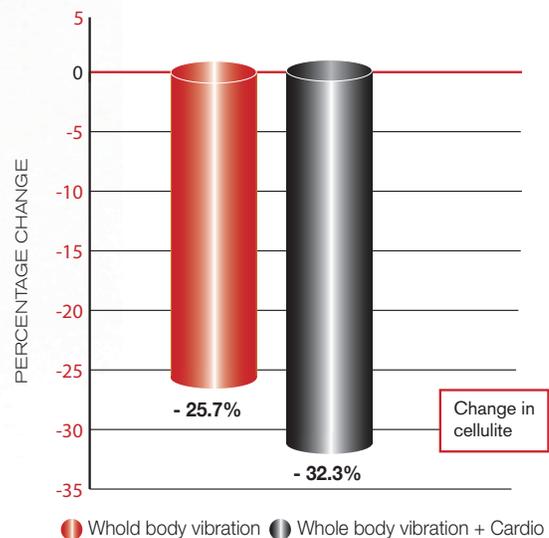


Figure 2A

Change in circumference of the buttocks of the whole body vibration group and the whole body vibration + cardio group.

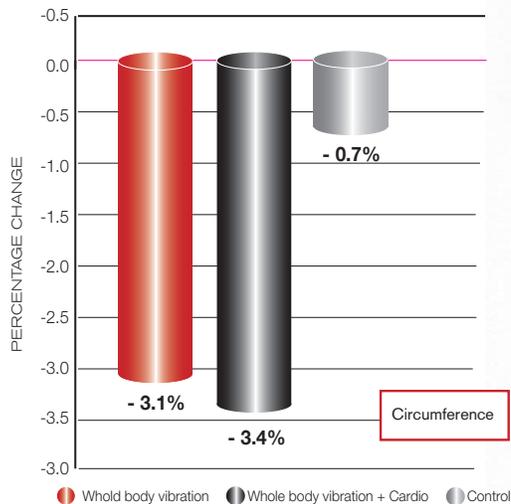
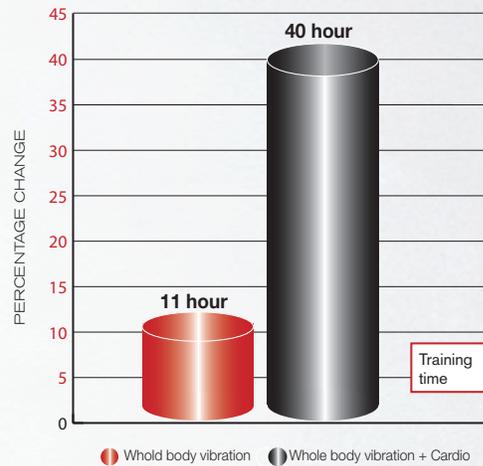


Figure 2B

Training time of whole body vibration group and whole body vibration + cardio group



**Method:**

Fifty-five subjects were divided into two groups. The first group only trained on Power Plate. Two to three times per week, for sessions of 8-13 minutes. The second group also used whole body vibration, but supplemented their 8-13 minute whole body vibration workouts with 24-48 minutes of cardio training.

Baseline measurements and tests were completed at the beginning of the study, and repeated six months later. The data collected consisted of:

1. Skin condition (the measure of cellulite or evaluation of the deposits of dimpled fat under the skin)
2. Circumference of calf muscles, buttocks, and upper thigh
3. Body composition: body fat percentage, and lean mass percentage

**How Whole Body Vibration was used:**

Participants performed four exercises on Power Plate in a workout of 8-13 minutes (see fig. 3). The results showed a significant reduction in cellulite in both groups, showing improvement on all variables.

**Conclusions:**

This study suggests that easy, simple and efficient Power Plate® training can reduce the appearance of cellulite, and accelerate and enhance collagen remodeling.

Figure 3

The Power Plate group performed the following exercises plus the deep squat. For progression, subjects were eventually asked to perform the exercises on one leg.

