MPCH
Medizinisches
PräventionsCentrum
Hamburg
am Universitätsklinikum Hamburg-Eppendorf

MPCH · Falkenried 88 · 20251 Hamburg

The HYPOXI vs. Exercise Only study: Summary of Results

Prof. Dr. Christoph M. Bamberger, Dr. Sabine Guth
Medical Prevention Center Hamburg (MPCH) at the University Medical Center Hamburg-Eppendorf (UKE)

The reduction of energy input and the increase of energy consumption through physical activity are the basis of weight reduction and weight control. Until now, it could not be proven that any method systematically and preferentially reduced body fat in specific body areas ("problem areas"). Reports seem to indicate, however, that the effect of conventional endurance training on the reduction of fat pads can be increased by additional alternating positive and negative pressure in target areas such as the area around the abdomen and hips or the thighs (HYPOXI training).

The goal of the study was to scientifically verify these reports. To this end, 20 overweight women (30-50 years of age, BMI 27-32 kg/m²) were randomly divided into two groups. The first group performed a four-week exercise programme on a conventional bicycle ergometer (3x 30min. per week). The second group performed the same amount of the same exercises using a HYPOXI Trainer S120 (ergometer training with simultaneous alternating pressure treatment from the waist down during the entire 30 minutes). In addition to the parameters which are especially relevant for this study, namely weight loss and circumference reduction, we also measured blood sugar, lipids and blood pressure before and after the four-week training programme.

16 overweight men were examined in the same manner, with the groups having to perform either conventional treadmill training, or treadmill training using the HYPOXI Vacunaut (a neoprene suit specifically designed for alternating pressure treatment in the areas around the abdomen and hips).

The results of the study involving the women can be summarized as follows:

1. Both groups showed significant weight loss. It *tended* to be more distinctive in the HYPOXI group, but was *not significantly* greater (HYPOXI group average: -3.0 kg, control group average: -2.3 kg).
2. Both groups showed circumference reduction of the female problem areas (hips, buttocks, thighs of both legs prox. as well as individual thighs with legs relaxed or stretched). However, the amount of circumference reduction was *highly significantly* greater for the members of the HYPOXI group than for the control group participants (HYPOXI group: -13.1 cm, control group: -4.8 cm).
3. Both groups showed circumference reduction of the thighs (measured on one relaxed leg). The circumference reduction was *highly significantly* greater for the members of the HYPOXI group than for the control group participants (HYPOXI group: -2.9 cm, control group: -0.7 cm).
4. Both groups showed circumference reduction of the relevant measurement areas around the abdomen and hips. The sum of the circumference reduction was *highly significantly* greater for the HYPOXI group members than for the control group participants (HYPOXI group: -7.4 cm, control group: -2.7 cm).
5. The sum of circumference reduction of all measurement areas relevant for this study (waist, abdomen, hips, buttocks, thighs of both legs prox. as well as individual thighs with legs relaxed or stretched) also showed *highly significantly* better results for the HYPOXI group (HYPOXI group: -19.9 cm, control group: -8.3 cm).

The results of the study involving the men can be summarized as follows:

6. Both groups showed significant weight loss. Again, it *tended* to be more distinctive in the HYPOXI group, but was *not significantly* greater than that of the conventional training group (HYPOXI group average: -3.0 kg, control group average: -2.3 kg).
7. Both groups showed circumference reduction of the male problem areas (abdomen, hips). However, the amount of circumference reduction was *highly significantly* greater for the members of the HYPOXI group than for the control group participants (HYPOXI group: -9.4 cm, control group: -2.9 cm).
8. The sum of circumference reduction of all measurement areas relevant for this study (waist, abdomen, hips) also showed *highly significantly* better results for the HYPOXI group (HYPOXI group: -13.3 cm, control group: -4.4 cm).

CONCLUSION

Noticeable weight loss can be achieved within four weeks with both conventional endurance training and with HYPOXI training. It tends to be more successful with HYPOXI than with conventional training. Regarding the systematic body fat reduction in the target areas, HYPOXI is highly significantly superior to conventional training. This means that HYPOXI provides a scientifically proven method of systematic body fat reduction in the problem areas. Due to the relatively short duration of the study, no statements can be made regarding the additional medical benefit of the improvement of blood sugar levels and blood lipids or the blood pressure.

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Prof. Dr. med. Christoph M. Bamberger
Study leader

Dr. med. Sabine Guth
Project leader