

# Study on the Fitness Benefits of regular Training with the T-BOW®

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The graduate theses by D. Hugener and S. Reidt on the T-BOW® showed interesting results for their studies at the "für de Institut Bewegungs- und Sportwissenschaften", the Institute of Movement and Sport Sciences at the "Eidgenössische Technische Hochschule" [the Swiss Federal Institute of Technology in Zurich (ETHZ)] Switzerland.

During their study with a group of male and female adults the T-BOW® was used twice a week for 45 minutes as a training device over a period of 8 weeks. One condition was that the person participating in the study had not been training regularly (or no more than once a week).

Tests were used to measure capabilities of the heart and cardiovascular system, strength, and balance skills. A marked improvement was experienced in all areas, shown by the comparison of the results at the beginning and at the end of the training period.

Measurements for the heart and cardiovascular system:

- Resting pulse.
- Pulse after 2 min. walking quickly, 2 min. running, 2 min. running fast.
- Recovery pulse after 1 min., 2 min.
- Time for pulse to reach 100 per min. again.

The improvement after training: decreases in 5-10 beats/minute and faster recoveries in the tests after the training period.

Measurements for strength: dynamic movements.

- Abdominal muscles.
- Back muscles.
- Pectoral muscles and triceps.
- Leg muscles (stretching).
- Lateral muscles of the trunk.
- Muscles that stabilize the trunk.
- Strength improvement after training: 20 - 95%.
- Balance skill measurements (on swing): Balance for 20 sec. crosswise and longitudinally on a wooden plank without holding on anywhere and without the plank touching the ground. Improved balance after training: 30% on average.

In addition, the participants were asked about subjective criteria.

**All participants were unanimous in their opinion that the training program with the T-BOW® had been holistic, very varied and extraordinarily fun. Many expressed their feeling of tiredness in training but also a great final satisfaction at feeling much stronger and more energetic.**

Subjective feeling after training with the T-BOW®: everyone had a lot of fun and felt a great body sensation after training

Training with the T-BOW® was also compared with other types of training. The integrity of the program was very obvious. To date, there is no other training program performed with just one piece of equipment that can comprehensively include cardiovascular endurance training, strength training, balance-coordination training, and mobility training.

The increased radius of movement for the abdominal muscles thanks to the curvature of the T-BOW® has also been proven. However, further studies with more people are needed to confirm these results and guarantee objectivity and reliability.

Surveys of fitness and recreation centers showed that stacking the T-BOW® in relatively small spaces is seen as a great advantage.