Maximum Effect, Minimum Time.

How to burn more fat, with less effort

23rd January 2007

Researchers from the University of New South Wales (UNSW) have found an easier way of getting off those extra kilos you may have gained over the holiday season. The team has trialled a different way of exercising, which burns more fat than regular continuous exercise. "The group which did around eight seconds of sprinting on a bike, followed by 12 seconds of exercising lightly for twenty minutes, lost three times as much fat as other women, who exercised at a continuous, regular pace for 40 minutes," said the team leader, Associate Professor Steve Boutcher, Head of the Health and Exercise Science program, in the School of Medical Sciences at UNSW. The study involved a group of 45 overweight women who cycled three times a week over a 15-week period. Professor Boutcher said this would be applicable to other types of exercise such as swimming, walking, and rowing. The results have been presented at recent meetings of the Heart Foundation and American College of Sports Medicine. "We think the reason that it works is because it produces a unique metabolic response," said Professor Boutcher. "Intermittent sprinting produces high levels of chemical compounds called catecholamines, which allow more fat to be burned from under the skin and within the exercising muscles. The resulting increase in fat oxidation drives the greater weight loss." The women lost most weight off the legs and buttocks. "This maybe unique to this type of exercise," said Professor Boutcher. "We know it is very difficult to „spot reduce" troublesome fat areas. When you do regular exercise, you tend to lose fat everywhere and you tend to look emaciated. Our results are unusual but were consistent across the women who performed the sprinting exercise." "Overall, any type of exercise is good. You just have to work out your objectives, whether it is to increase muscle, lose fat, or enhance other aspects of your life such as improving the quality of your sleep," said Professor Boutcher. And there is a positive message for some people who are overweight. "A lot of people are fat despite having a good diet and a high level of physical activity," he said. "But being „fat and fit" is much healthier than being lean and unfit. Those overweight people who don"t have excessive fat around their abdomen and don"t have low grade inflammation typically stay healthy and don"t become diabetics. "The message that fat is awful is an exaggerated one," he said. Dr Gail Trapp was the Chief Investigator on the research.

A/Prof Steve Boutcher, , Susi Hamilton, UNSW media unit,

Program 1 week 1 - 2 **Cardio Based**

Total Workout Time: 20 Minutes

Total Time: 35 minutes

Warmup Time: 7 Minutes

Cool Down Time: 7 Minutes

Work/ Rest rate: 1:1 (30s work/ 30s rest) **Rest = Intensity 4**

Rest Break: 1 Minute at 10 minute mark (only if needed or keep going)

Intensity Level: 7 – 8

Program 2 week 2 - 4 **Cardio Based**

Total Workout Time: 20 Minutes

Total Time: 35 minutes

Warmup Time: 7 Minutes

Cool Down Time: 7 Minutes

Work/ Rest rate: 2:1 (40s work/ 20s rest) **Complete rest**

Rest Break: 1 Minute every 4 minutes.

Intensity Level: 8

Program 3 week 4 - 8 **Cardio Based**

Total Workout Time: 20 Minutes

Total Time: 35 minutes

Warmup Time: 7 Minutes

Cool Down Time: 7 Minutes

Work/ Rest rate: 2:1 (20s work/ 10s rest) **Complete rest**

Rest Break: 1 Minute every 4 minutes.

Intensity Level: 8 - 9

Program 4 week 8 - 12 **Cardio Based**

Total Workout Time: 20 Minutes

Total Time: 35 minutes

Warmup Time: 7 Minutes

Cool Down Time: 7 Minutes

Work/ Rest rate: 2:3 (8s work/ 12s rest) **Rest = Intensity 3**

Rest Break: 1 Minute at 10 minute mark (only if needed or keep going)

Intensity Level: 9 - 10

Total Workout Time: 20 Minutes

The time spent in the exercise phase.

Total Time: 35 minutes Total time from warm up to end of cool down.

You will work at the given **Intensity level** for xx seconds(s)/and rest for xx seconds(s) on the **dot**.
Rest Break: keep moving but a lower **intensity level 2**

Intensity Level: 9 - 10
The Perceived Exertion Scale Rating. (Intensity Level)
0 EXTREMELY EASY/RESTING
1 VERY EASY
2 EASY
3 SOMEWHAT EASY/ACTIVE REST
4 MODERATE
5 VERY MODERATE
6 SOMEWHAT HARD
7 HARD
8 VERY HARD
9 NEAR MAXIMAL EFFORT
10 MAXIMAL EFFORT

Gauging Intensity
☐ Consider a **Rating of 10** to be intensity that you would exert while being chased by a dog
☐ Consider a **Rating of 0** to be the intensity that you would exert while sleeping

Exercises

Pushups, clapping pushups, medicine ball pushups, dips, squats, squat sprints, jumping squats, jumping lunges, chinups, crunches, bicycle crunches, running sprints, and any other exercises you can come up with.

Stretching

Lower back hamstrings chest Quads