



INCREASE YOUR HUMAN GROWTH HORMONE (hGH) NATURALLY?

By Chad Clark, MSPT, CSCS

Human Growth Hormone is touted as an amazing performance enhancement supplement that promises increased muscle mass and accelerated fat metabolism in people. A comprehensive research study looked at how to increase hGH naturally. It appears that human growth hormone secretion is at its greatest one hour after falling asleep. Exercising for ten minutes above lactate threshold (high intensity aerobic exercise) appears to increase hGH secretion. Human Growth Hormone in the form of medications can give benefits to people taking the medicine; however it can trigger other metabolic disturbances in their bodies. Research states it is unclear how to safely and practically harness hGH beyond normal exercise sessions and practicing good sleep hygiene.

CAN EXERCISE REDUCE HIGH BLOOD PRESSURE?

There are actually few studies that show a clear relationship with resistance training and its effects on hypertension. However, there is not clear evidence that resistance training makes hypertension worse. Exercise prescription for reducing blood pressure hasn't been determined precisely, but there are some suggestions through research. Exercise recommendations for people hypertension and borderline hypertension are given below:

1. **Frequency** - 3 or more times per week
2. **Duration** - 30 to 45 minutes
3. **Intensity** - 50% VO₂ max or about 50-55% max heart rate

Weight loss is effective for lowering blood pressure and exercise can reduce blood pressure independent of losing weight. In summary, exercise of longer duration, higher frequency, and moderate to lower intensity can help to lower blood pressure.

IS AEROBIC TRAINING EFFECTIVE TO REDUCE BODYWEIGHT AND BODYFAT?

It is possible if you expend a large amount of energy each week in a structured moderate to high intensity exercise program. It appears that healthy men were able to reduce bodyweight and fat, while women prevented weight gain in a 16-month exercise research program. Since so few people workout five or more times per week at 75-85% max heart rate for 45 minutes or longer each workout, this protocol would be difficult maintain in most developed countries. However, there is a group and individual exercise program that I have been modifying for about seven years that is a fun, encouraging, and at-your-own pace exercise program that can be effective for improved fitness. The program requires no equipment (some apparatus could be used), minimal space, and can be done anywhere. This functional

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program enhances agility, balance, coordination, endurance, functional flexibility, strength, and power in anyone willing to participate, regardless of his or her age, current ability, and conditioning. This functional training concept is not new, but the way it is put together is unique and effective. Send me an e-mail or call if you or a group of people are interested in learning more about the functional training program.

HOW MUCH AND WHAT TYPE OF EXERCISE INCREASES METABOLISM?

Here is what is known about resting metabolic rate (RMR) and after workout energy expenditure:

- 1 Moderate intensity exercise for 30 minutes only increases RMR for 20-30 minutes after the exercise is completed which equals an extra 10-12 calories burned.
- 2 Vigorous exercise for 30 minutes increases RMR for 35-45 minutes allowing 15-30 calories burned after the exercise session.
- 3 High intensity exercise for 90 minutes or more each session must be done to show a major increase in calories burned after exercising (Note: few people could or would do this everyday without burning out).
- 4 Highly trained endurance athletes who stop training for as little as two days have the same RMR as sedentary people with the same weight and body composition.
- 5 Resistance training increases fat-free mass and each pound of muscle that is added only increases RMR by 7-10 calories per day!
- 6 It is only a superior strength athlete and bodybuilder who can add a great deal of fat-free mass and significantly increase his or her RMR.

Interestingly, even if you gain 25 pounds of muscle that still only equates to burning an extra 175-250 calories per day. Therefore, it is easier on your body, mind, and spirit to modestly constrain eating, be more physically active, and do sensible resistance and aerobic training routines each day.

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