



Washington Township Medical Foundation

Part of Washington Hospital Healthcare System

Washington Women's Health

2299 Mowry Avenue, Suite 3C

Fremont, California 94538

Phone: 510-248-1470

Fax: 510-796-5198

Stacey Barrie, MD
Siobhan Calhoun, MD
Jing Dai, MD
Elizabeth Kurkjian, MD
Victoria Leiphart, MD
Jelriza Mansouri, MD
Stacie Macdonald, MD
Sudeepthi Prasad, MD
Jenny (Hanh Thi) Tran, DO

Diplomates of the American Board
of Obstetrics and Gynecology

High Intensity Interval Workout Burns More Fat, and in Less Time

It's important to combine diet, strength training, and cardio exercise to achieve your weight loss goal. But the secret to how to achieve your goal faster or breakthrough a plateau is high intensity interval training that accelerates fat burning even after your workout is completed.

What is HIIT?

HIIT stands for *high intensity interval training*. The basic premise behind HIIT is that you work really hard for a short burst (sprint or climb) and then do an active recovery period (jog or walk). You can apply this to other forms of cardio exercise (eg. Biking, swimming, cardio machines). You would repeat this routine numerous times for optimal benefit.

Benefits of HIIT

A HIIT workout offers many benefits. HIIT really ramps up fat burning. The intense intervals allow for the release of fat from fat cells into the bloodstream. Additionally, HIIT results in increased Human Growth Hormone levels (HGH). HGH is a hormone that burns fat while preserving muscle. Finally, and most importantly, HIIT results in an after-burn effect—raises your resting metabolic rate—where you burn calories for hours after you complete your workout.

Drawbacks of HIIT

The main drawback is that you should not perform HIIT everyday—every other day is ideal. Overtraining is a serious problem that can lead to injury, especially if you also perform strength training for your legs. If your muscles are tired then they need to recover and you are probably better served doing a slow paced steady state cardio routine on that particular day. Also don't forget core training for your midsection and strength training for your upper body.

Sprint Interval Length

There are a few components of HIIT that you can vary. The first is the length of the sprint intervals. Shorter intervals of 15-30 seconds allow you to exert more effort during the sprints. This increased level of effort will result in a stronger release of HGH and more fat into the bloodstream. As your conditioning improves you need to push yourself to a higher level of intensity in the future.



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Longer intervals of greater than 30 seconds require more perceived effort. These result in a greater number of calories burned. Additionally, these longer intervals deplete glycogen levels (carbs) from your muscles and liver, allowing your body to burn more fat after the completion of your workout.

Recovery Length

The recovery length also impacts the effects of HIIT. This is the walking or jogging portion of the workout that allows your muscles time to actively recover. The length of recovery is relative to the sprint interval. If you recover for 60 seconds and sprint for 30 seconds, the ratio is 2:1. If you recover for 45 seconds and sprint for 15 seconds, the ratio is 3:1.

The longer the recovery in relation to the sprint interval (2 or 3:1), the more effort you can exert in the next interval. This increased effort will again result in a stronger HGH release. Additionally, longer recovery reduces the risk of overtraining.

A short recovery relative to the sprint interval (1:1) results in lactic acid buildup in muscles, glycogen depletion, and a greater after-burn effect. However, this can lead to a greater risk of overtraining.

The Best Cardio for Weight Loss

Perhaps the best cardio for weight loss combines these HIIT workout routines resulting in a strong HGH response, release of fat, glycogen depletion, and calorie burning.

1st Phase

After warming up for a few minutes of light cardio, proceed to the 1st part of the workout performing short, fast interval HIIT with a long recovery ratio. For these intervals, you sprint 15 seconds and recover (jog) for 45 seconds. This increases HGH levels and releases fat (*Migrate & Mobilize*). Do 10 sets of this type of HIIT for 10 minutes.

2nd Phase

For the 2nd phase, perform 20 minutes of steady state cardio (light paced jog or cursing on a bike). This provides an active recovery for your muscles. More importantly you burn the fat that short interval HIIT released into the bloodstream (*Metabolize*).

3rd Phase

Long interval HIIT is the 3rd phase. This depletes your body of glycogen allowing for a greater after-burn effect of fat burning once your workout is complete (*Metabolize*). Perform 1 minute sprint intervals with 1 minute of recovery (jogging). The sprint intervals for this portion are not as intense as the first phase, by necessity as your muscles will be slightly tired. Try going uphill or increasing resistance on bike or cardio machine for sprint to vary from 1st phase where focus is on speed. This final phase lasts 10 minutes.



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Conclusion

Training aids can be helpful and impart discipline with these structured workouts. A heart rate monitor is wonderful as you can train to target zones based on your age-appropriate maximum heart rate (see diagram). Gymboss® is an application you can download to a smart phone and enter your interval workout which it will then prompt you to perform.

So there you have a 40 minute HIIT workout that is the best cardio for weight loss. Also remember stay hydrated with water during your workout and to consume a light snack immediately afterwards that incorporates protein to help your muscles recover.