

S U P P L E M E N T

WHAT CAN HIGH-INTENSITY INTERVAL TRAINING DO FOR YOU?

INTERVAL TRAINING generally refers to repeated sessions of relatively brief, intermittent exercise, in which short intervals of intense exercise are separated by longer periods of recovery. Depending on the level of exertion, a single effort may last from a few seconds to several minutes, with exercise intervals separated by up to a few minutes of rest or low-intensity exercise.

High-intensity interval training is often dismissed as being only for elite athletes. However, the basic concept of alternating high-intensity and low-intensity periods of exercise can be applied to almost any level of initial fitness. In addition, interval training is often based on subjective effort and does not necessitate working out at a specific heart rate or running speed. So while intervals may mean all-out running sprints for people with high levels of fitness, intervals can mean a brisk walk for others.

Benefits

- High-intensity intervals are a potent training stimulus. Even though the volume of exercise is quite small, a few brief sessions of intervals can cause adaptations similar to those associated with more prolonged periods of continuous moderate-intensity exercise.
- You only need to do intervals every other day, so you have more days off. This is great news for people who are pressed for time.
- Time flies. Not only will you be able to reduce your training time, but also the actual exercise component will zip by because of the alternating periods of intensity.

Limitations

- Discomfort. Intervals are very strenuous, and your legs will feel like jelly at the end of the workout. While you don't have to exercise at 100% intensity to see results, you will have to leave your "workout comfort zone" if you want to achieve the benefits of high-intensity training.
- You will need to do an extended warm-up session if you plan on running sprints for your interval training sessions. Explosive running may increase your risk of injury compared to less weight-bearing activities such as cycling or swimming. If you run your intervals, try doing them up a hill.
- Be sure to dramatically reduce exercise intensity during the recovery periods between intervals. Most people do interval training incorrectly and do not permit themselves sufficient recovery. If you don't recover adequately, you are not going to be able to work as hard during the exercise intervals.

Before returning to strenuous training or competition after injuries, consult with an athletic trainer, personal trainer, sports medicine physician, or knowledgeable coach to make certain you have adequate strength in the previously injured limb(s).

The science behind interval training also helps to bury myths such as the "fat burning

zone” and “it takes 30 minutes of exercise before your body begins to burn fat.” Skeptics often dismiss the fat loss potential of high-intensity exercise because the intervals are relatively short. But energy expenditure remains high during the recovery periods between exercise intervals, even though exercise intensity is dramatically reduced. To demonstrate this point, a recent study showed that only seven sessions of high-intensity interval training over two weeks increased fat burning during exercise by more than 30%.

As with any type of unaccustomed exercise, you should consult with your physician before beginning interval training. But high-intensity exercise is not “a heart attack waiting to happen.” Indeed, recent studies have applied high-intensity interval training strategies to patients with heart disease and reported greater improvement in health and fitness compared to traditional endurance training.

Sample Workouts

Here’s a sample program for an absolute beginner (someone who can walk for 30 min at 3.5 mph):

- Warm up: Five minutes of walking at 3.5 mph.
- Speed up and walk at 4.0 mph for 60 seconds.
- Slow down and stroll at 3.0 mph for 75 seconds.
- Repeat steps 2 and 3 five more times.
- Finish with 5 minutes of walking at a comfortable pace to cool down.

Here’s an example of a more advanced workout for a person who is used to relatively vigorous exercise:

- Warm up: Five minutes of easy jogging or light cycling.
- Run or cycle for 60 seconds at about 80-90% of your all-out effort. (Assume 100% equals the speed you would run to save your life, or cycle with as high a cadence as possible at the highest possible workload setting).
- Slow down to 30% of your all-out effort for 75 seconds. (Make sure to reduce intensity to a slow pace.)
- Repeat steps 2 and 3 five more times.
- Finish with 5 minutes at 30% of your all-out effort to cool down.

As you become more experienced, you can increase the intensity of the exercise intervals. You can also use different modes of exercise to do intervals. If you like to train outdoors, you can perform hill sprints or run in waist-deep water. If you are resigned to training at a commercial gym, you can choose between the treadmill, cross-trainer, stationary bike, and even the rowing machine. It all comes down to having the ability to increase the workload for a short amount of time and then being able to back off.

COMMENT

It is unlikely that high-intensity interval training produces all of the benefits normally associated with traditional endurance training. The best approach to fitness is a varied strategy that incorporates strength, endurance and speed sessions as well as flexibility exercises and proper nutrition. But for people who are pressed for time, high-intensity intervals are an extremely efficient way to train. Even if you have the time, adding an interval session to your current program will likely provide new and different adaptations. The bottom line is that — provided you are able and willing (physically and mentally) to put up with the discomfort of high-intensity interval training — you can likely get away with a lower training volume and less total exercise time.

SUGGESTED ADDITIONAL RESOURCES

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