
Burst Training

Health Centers of the Future, LLC.

If you're anything like me, you don't have hours to spend at the gym every week to achieve a lean, toned physique. Fortunately, I don't have to and neither do you. I'd like to let you in on my secret for rapid weight-loss, fat burning and aging slower. It's an exercise strategy called burst training (aka High Interval Intensity Training or HIIT), and remains my all-time favorite work-out to help me stay in peak physical condition and anti-age. It's incredibly effective and efficient, and generates fat loss for hours after the actual workout. Studies show a contrast between endurance type of exercise (low intensity) and burst training (high intensity) for weight loss and aging. The burst wins out in both cases and yet takes far less time, and you don't even need a gym to do it. Amazing results in a minimal time frame, no gym required. Sound too good to be true? Read on to learn more about burst training, the science behind why it works, and ideas for a workout routine that will help get you into the best shape of your life.

What is Burst Training?

Burst training involves exercising at your maximum capacity for 30-60 seconds (or "bursts," where it's tough to breathe), immediately followed by one to three minutes of very low intensity exercise or complete rest. You can do it anytime and anywhere, with no special equipment needed. Whether in a gym, hotel, or the great outdoors, you can fit in a quick burst training session. There are endless ways to burst (read on for ideas) and it only takes about 10-15 minutes per workout, two to four times a week to reap the benefits. This figures to less than an hour of exercise each week, and more time to spend doing the things you love.

Why it Works

Burst Training helps to boost human growth hormone (HGH)

HGH, the "fountain of youth" hormone, is produced in the pituitary gland and stimulates growth, cellular reproduction, and regeneration. It plays a role in maintaining all human tissue, and it's impossible to increase muscle mass and bone density without it. HGH has the ability to turn back your body's biological clock, help you decrease body fat and inflammation, build muscle, boost immunity, maintain a sharp mind, and also increase energy levels and libido. Hence the reason for the buzz. A 2003 study showed that burst training for just 10 minutes spikes HGH because the high intensity movement increases lactic acid levels above their threshold (which occurs when you feel the "burn" of intense exercise).

The body will also raise HGH as an adaptation to replace the stored glucose (glycogen). During high intensity training, the source of energy is stored glucose in the form of glycogen not fat. But if no fat is burned during the exercise, why is it so effective for weight loss? Great question, and the answer is always in adaption and survival. The body knows it needs the stored glucose for fight or flight: basic survival. Therefore, it will raise its anabolic type of hormones, like HGH and testosterone, to burn the fat after exercise for 36 hours (on average) to replace the stored energy. What would you rather do, burn fat for 30- 60 minutes during exercise or 1 or 2 days after 10-15 min of exercise? When it comes to weight loss and anti-aging it's always about hormone manipulation. I hope you are starting to see this theme in the series of strategies.

HGH is currently used as a prescription drug to treat growth disorders and to increase vitality. But why not support the body to naturally produce more HGH using burst training? Along with bursting, HGH is secreted during deep and restful slumber (REM sleep). Therefore, to optimize HGH perform regular burst training sessions and get enough quality sleep.

Burst Training supports fat burning post-workout

During exercise, the body also creates an “oxygen debt” which it then must work to pay back. The pay back, or recovery process, requires energy, and similar to what I described above, the body oxidizes its own fat stores to meet this increased energy need. Low intensity workouts don’t require as much post-exercise metabolic repair, thus the metabolic benefits and results are not nearly as impressive. On the other hand, the harder you work out, the greater the metabolic debt that is created and needs to be restored, and that repair process continues for hours and days after an intense workout. Burst training = major fat burning. Enough said.

Blood sugar levels are massively affected by grain consumption.

Studies show that burst training is far more effective for fat loss than standard cardio, and regular bursting has been shown to significantly increase both aerobic and anaerobic fitness, which offers many long-term health benefits. One study compared a 20 week endurance training program with a 15 week bursting program, and results showed the bursting regime produced a nine-fold greater subcutaneous fat loss than the endurance plan. While many current exercise programs focus on moderate intensity cardio exercise regimes, like jogging for an hour, these programs typically result in limited weight loss and fat burning. If you want rapid weight-loss to occur, the intensity MUST be taken up a notch.

Bursting vs. Endurance Training

Endurance training involves training the aerobic system more than the anaerobic, and increases cortisol (the “stress hormone” produced by the adrenal glands) when done in excess. Chronically raised cortisol leads to oxidative stress, inflammation, a decrease in HGH, and a lowered production of anabolic hormones which “build up” organs and tissues and increase muscle mass. While all exercise produces cortisol, it can be good or bad for the body depending upon the activity. Burst training increases cortisol for a short period of time, whereas endurance training increases cortisol chronically, never pushing the body intensely enough to trigger HGH to attain its fat burning and anti-aging benefits. Moreover, prolonged, strenuous endurance exercise, such as marathon running, increases inflammatory markers and even the risk of sudden cardiac death.

Conversely, burst training allows you to reap the benefits of both aerobic and anaerobic exercise, massively boosting HGH and anabolic hormones and burning stored glucose, thereby helping you lose weight, look younger, and get lean more quickly. Compare a marathoner to a sprinter: isn’t it typically the long distance runner who appears to be aging prematurely? This is because endurance athletes are always battling oxidative stress. The training notion of “staying in the fat burning zone” is a myth, and burst training is a 180° Solution™ approach to get to your best body through exercising smarter, not harder.

I must note that as an avid cyclist, I’m by no means against endurance training, as it does have its benefits and I enjoy it greatly. However, when it comes to anti-aging, fat burning, and weight-loss, burst training wins the race. It’s simply a faster and more effective way of getting into shape considering how God designed the body to function. We were meant to chase down prey, not run for 26.2 miles, while slurping down a sugary energy gel to boot.

Stress and Rest

Burst training is a great example of the stress and rest principle in action (check out the workout videos for ideas). Stress and rest involves periods when the body is pushed to the physical limit (stress), followed by time for the system to recover (rest). The stress is a good stress, or eustress, and is key to our mental and physical growth and well-being. But the resting period is just as crucial as the intense period of exertion; therefore, adequate resting time needs to be taken between sessions for best

results. I suggest bursting two to four times a week, but as always, listen to your body and experiment to see what works for you. Starting “slow and low” is a good bet, especially if you haven’t been exercising regularly.

Faster Results with a Multi-Therapeutic Approach

Want to see more results even faster? Combine burst training with intermittent fasting. The duo works like magic to supercharge fat loss and also improves brain function and hormone sensitivity, and if you’ve read my past posts, and are picking up on this theme, you know that the key to weight-loss is fixing your hormones. Adaptation to the stress created from burst training is the reason a hormone shift occurs. Combining the two techniques further raises HGH, and also makes you more hormone sensitive, a key to staying young and lean. While bursting and fasting are recognized as stand-alone strategies to improving health and optimizing hormones, incorporating both into your routine take the effects to a whole new level.

Combining the strategies may help your brain too. Both intermittent fasting and burst training are cited as ways to improve memory, and when therapies that positively affect the brain are combined, a synergy occurs which slows dementia and cognitive decline. I’ve found this model of combining multiple proven strategies to make an impact with many clients who have improved brain function, balanced hormones, and dropped stubborn weight by combining fasting, bursting, and following the True Cellular Detox™ Diet. I call it a Multi-Therapeutic Approach (or MTA) and have it been using it clinically for years. The combination works, and I believe the synergy is why the results are so incredible.

This MTA is easy to follow: simply do a burst training workout on a fasted stomach in the morning. I typically wake up, drink a cup of organic coffee with a splash of grass-fed heavy cream or MCT oil, and get a burst training session in first thing. Remember, I haven’t eaten since my sizeable high fat/moderate protein/low-ish carb dinner the evening before, and won’t eat again until lunchtime rolls around in the late afternoon (intermittent fasting). It takes a little time to get to the state of not becoming famished while fasting for 16-18 hours, especially when you do a hard workout. However, the more you train your body to burn fat to replace energy stores (glycogen), the longer you can last and not become hungry, since you’re becoming an efficient fat burner. If you can’t fast for such a long period, even waiting 2-3 hours after a workout before eating promotes a rise in HGH, which helps to make you a fat burner. Fasting pre-workout: another 180° Solution™ strategy for weight loss and better health.



Getting Started

There are endless ways to do a burst training workout. The goal is to get your heart rate to the point of not being able to talk well because you are breathing so hard. Check out the video in your resources section to get ideas. Simply running up and down stairs or in place, doing pushups, sit-ups, or squats for 30-60 seconds with 1 minute breaks for about 10 minutes are all that is needed for results. Don't worry about the funny looks from passers-by as you sprint up a hill: you're becoming a lean, mean fighting machine.

Try this basic bursting workout outside or on a treadmill:

- Sprint hard for 30 seconds
- Rest for 1 minute
- Repeat 4-5 times, increasing sprinting speed if possible

As far as my personal bursting regime, during wintertime I like to get outdoors and go skinning in the beautiful Utah mountains, which involves literally skiing UP the slope before you ski down: no easy feat. In warmer months, or when indoors, I do interval sprints, burpees, weight lifting, high jumps, and good old fashioned calisthenics. Biking and swimming can be burst training sessions too. Just remember to burst on a fasted stomach for enhanced results.

Note: I'm often asked "Can I do more sets or longer intervals?" The answer is yes. However, wait till you are in better shape. Studies show that for the average person, more exercise did not reap better results for weight loss. I do believe trained athletes, or those in great shape, benefit from some longer intervals of high intensity and/or more intervals.

Late-Day Workouts

Not a morning person? You can do an afternoon workout and wait two hours afterwards before eating and get similar results. For an evening workout it gets a little trickier to experience the benefits; therefore, I would suggest fasting and bursting one day over the weekend and perhaps one other day during the week. You can also fast and burst one day a week, but it will take some time to work up to it, so be patient with yourself. You can also try this strategy: don't eat at all during the day (except maybe some good fat like coconut oil or MCT oil), workout after work in the evening, and then come home and eat two hours later. Now, you might want to chew a family member's arm off by the time you get home, but simply remind them that "it's just another survival response."

Burst Your Way to Better Health

Contrary to popular belief, as with all 180° Solution™ strategies, more is not actually better when it comes to exercise. Working out for less than an hour a week is all that is needed to start shedding excess weight, burning fat, and looking younger. Burst training leverages the body's innate method of survival and energy conservation, and we are simply taking advantage of its natural response. I've observed remarkable personal and clinical results using bursting, especially in combination with intermittent fasting, and know that it supports rapid weight-loss and provides many other benefits. However, the proof is in the pudding: try burst training for yourself. Have fun with this powerful tool, and remember for the best results GO 180°!

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