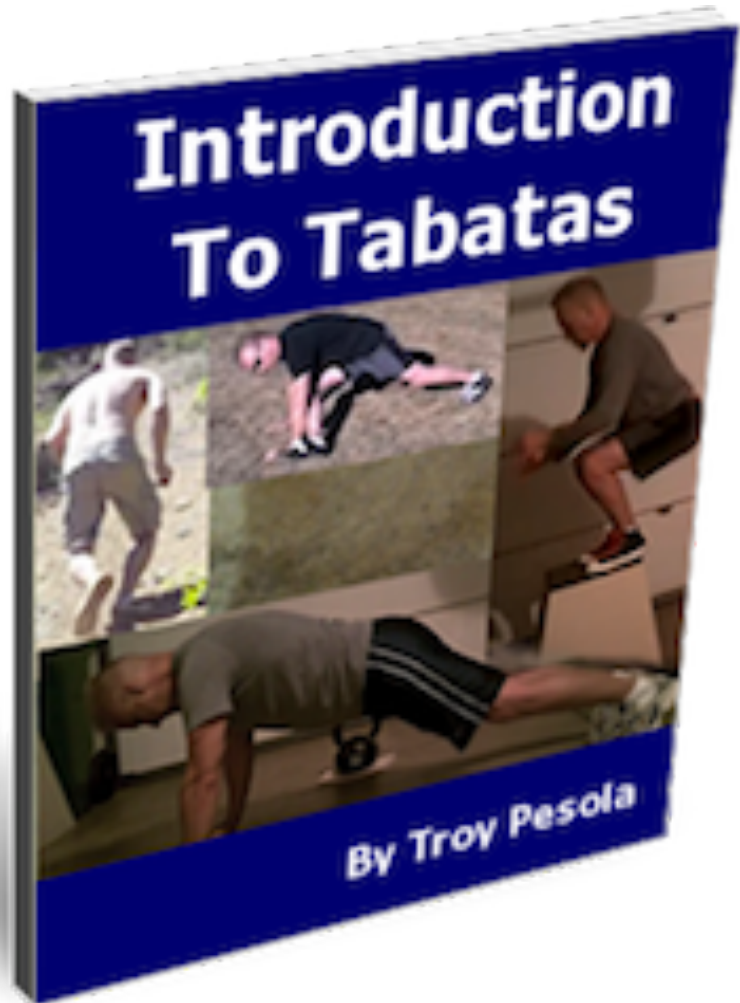


# Introduction to Tabatas



Troy R. Pesola

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*Version 1.0*



## DEDICATION

This book is dedicated to coaches and mentors - stay inspirational.

I hope you have been lucky enough to have some people speak into your life, to correct, to encourage, and to inspire. For me I have a list of coaches and mentors who have shaped my life and helped make me strive to continually improve. Without them life would be ... dull.

Enjoy this Introduction to Tabata training. As you read each page I hope I can help inspire, encourage, and correct as you explore new ways to train. You only get one body, so keep it in shape so you can enjoy all life has to offer.



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## *Disclaimer:*

You must get your physician's approval before beginning this exercise program.

The recommendations in this and other supporting documents are not medical guidelines but are for educational purposes only. You must consult with your physician prior to starting this, or any other program. The program is designed for healthy individuals 18 years and older only. The information in this document is meant to supplement, not replace, proper exercise training. All forms of exercise pose some inherent risks. Troy Pesola, or anyone associated with Cube Dweller Fitness, advises readers to take full responsibility of their own safety and know their limits. Before partaking in the exercises in this, or any other program, be sure that your equipment is well-maintained, and do not take risks beyond your level of experience, aptitude, training, or fitness. The exercises, workout, and nutrition information in this program are not intended as a substitute for any exercise, nutrition, or lifestyle regimen that may have been prescribed by your physician. Do not lift heavy weights while alone, inexperienced, injured, or fatigued. Do not perform any exercise unless you have been taught the proper technique by a certified fitness trainer, or a certified strength and conditioning specialist. Always ask for instruction and assistance when lifting. Do not perform any exercise without proper instruction. Always properly warm-up your body prior to any exercise including, but not limited to interval training. See your physician before starting any exercise or nutrition program. If you are taking any medications, you must talk with your physician before starting any exercise program including this program or any mentioned by Cube Dweller Fitness. If you experience any lightheadedness, dizziness, or shortness of breath while exercising, stop the movement and consult a physician immediately. You must have a complete physical examination if you are sedentary, have high cholesterol, high blood pressure, diabetes, are overweight, or are over 30 years old. Discuss all nutritional changes with your physician, a registered dietitian, or both. If your physician recommends that you do not use this or any other program, please follow their advise.

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Note that some of the links to other sites are affiliate links. That means if you follow the link and decide to purchase I'll earn a small commission.



# Introduction

This Introduction to Tabata Training book lays the foundation about the Tabata protocol. Like many topics in the fitness industry it has been used and abused. Don't be led astray. Don't believe that Tabata's are any miracle cure or crazy fad like the Shake-Weight. Tabatas can be a powerful addition to your training.

This book will explain what a Tabata is, how you'd incorporate it into your workouts, how to ramp up, and walk you through a simple way to start by running.

Tabata training is a form of High Intensity Interval Training that has been proven by scientific research to burn more calories in a shorter amount of time than typical "cardio workouts". At the same time these brief, but intense, workouts will be building muscle at the same time.

Before we start, we should step back and review some tips to keep you training for life.

## LIFELONG TRAINING TIPS - TRAIN SAFELY

- **If it hurts, Do not do it** - If a movement hurts, stop. Do not subscribe to the "no pain, no gain" mindset. Find alternative movements that do not hurt, and use them instead.
- **Recover** - Take time between sets and between workouts that you need to recover. Do not push yourself beyond your body's limits.
- **Educate** - Do not do any exercise that you are unsure how to perform. Always get personal instruction from a certified trainer. They can also help identify alternative movements that may better fit your training needs.
- **Spot Me** - Do not lift heavy weights alone, ask someone to spot you while you perform the movement. Be safe. Start with no weights or light weights.
- **Rehabilitate First** - Do not train while injured. If you think you may have an injury, get medical attention first. Work with a professional physical therapist to rehabilitate your injury before starting any exercise program.

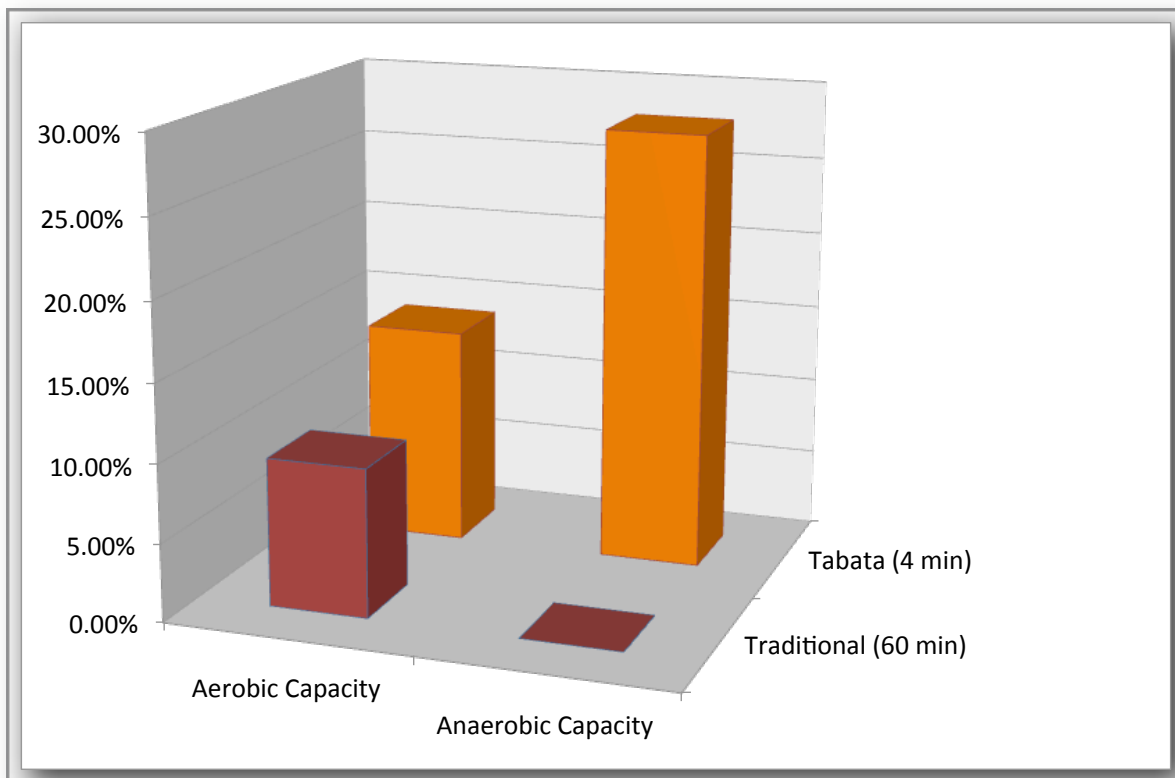


# Tabata Why?

Why would you want to dig into Tabata training? Simple - results.

Consider the results from Dr. Izumi Tabata's original research where his team compared 4 minute workouts to 60 minute traditional cardio-training.

- Tabata Interval trained athletes improved their maximum aerobic capacity by 14% and their anaerobic capacity by 28%
- Traditionally trained athletes, who run at 70% of aerobic capacity for 60 minutes, improved their aerobic capacity by 9.5% and saw *no* improvement in their anaerobic capacity!



Seriously! Train for 4 minutes instead of 60 minutes AND get better results!



# Tabata What?

High Intensity Interval Training (HIIT) is a popular method of training. Tabata intervals is one form of HIIT and is based on research performed by Dr. Izumi Tabata. In the research athletes were prescribed to perform 8 periods of 20 seconds of high intensity work followed by 10 seconds of rest. The intensity of work was measured by monitoring the amount of oxygen being processed.

In Tabata's study the athletes performed at 170% of VO<sub>2</sub>Max. I'll be honest as an engineer I get suspicious of any percentile that is larger than 100%. So let's dig into some background.

VO<sub>2</sub>Max is the maximum capacity an individual's body can transport and use oxygen during exercise. VO<sub>2</sub>Max is a measure of fitness, if you can process more oxygen you can do more work and recover faster.

Your VO<sub>2</sub>Max could also be thought of as the level of exercise you can sustain. Elite marathon runners can sustain a pace estimated to be 95% of their VO<sub>2</sub>Max. As you sprint, or do high intensity work, the effort pushes your body beyond VO<sub>2</sub>Max.

Exercise beyond 100% VO<sub>2</sub>Max can not be sustained. In Tabata's research the athletes worked at 170% of VO<sub>2</sub>Max that is an extremely high level of effort. This level of effort is extremely high. That level of intensity comes with a trade-off. It is directly due to the extremely high intensity that Tabata found the athletes burned more calories and increased VO<sub>2</sub>Max with their protocol. The trade-off is possible risks of over-exertion.

As I said in earlier it is essential that you talk through any fitness program with your doctor prior to starting. That is especially true for interval training where you system will be pushed to extremes.

Do not start a new fitness program, especially high intensity interval training, without your doctor's approval. (See disclaimer)





# Tabata Timers

So the only essential piece of equipment you will need is a timer, a Tabata timer. I've found three options that work well. The key is finding a way to time your work and rest periods while you are working out. Each of these options will work, it is really up to you to decide which Tabata Timer fits your needs best. Then get it, set it up, and rock and roll.

Having a timer is the only way you can accurately track your intervals. Any other method will leave you inconsistent and as a result - you won't get the same results. If you want to rock your training with Tabatas - get a good timer.

## GYMBOSS TIMER

One very popular and flexible option is the GymBoss timer. They let you set multiple intervals and repeat cycles. Setting it up for a Tabata workout is as simple as setting 20 second work intervals with 10 second rest intervals for 8 periods. [Buy a GymBoss timer.](#)





## SETSTARTER INTERVAL TIMER

This wonderful little device is definitely worth checking out. It is ideal for bodyweight Tabata exercises since it is just right there on your thumb. To use it your work and rest periods will be a little longer than the strict Tabata protocol with 30 second work (2 intervals) and 15 second rest periods (1 interval).

I put this one to the test on my blog: [SetStarter Review](#)

Check out the [SetStarter Interval Timer](#)



## TABATA TIMER IPHONE APPLICATION

Another option is to get a Tabata Timer application for your smart phone. I've used the Tabata App for my iPhone. I just plug in some speakers, play some music, then setup the timer for the Tabata workout and go.

Check out the [Tabata App from Katr](#)





# Tabata How?

So what does tabata training look like and how does it fit into a full fitness program?

Tabata training is best utilized as an addition to strength training to burn additional calories. Add a Tabata training session 2-3 times per week. By performing exercises at high intensity you burn more calories in a very short period of time while also increasing your metabolism to burn more calories through the day. The training format is simple and follows the pattern that doctor Tabata used in his research, 4 minutes consisting of 8 rounds of 20 seconds of work and 10 seconds of rest.





# Tabata Ramp Up

How to get started with high intensity training of the Tabata protocol? The key benefits of the Tabata protocol comes from the extremely high intensity. But that doesn't mean that you should just jump right into high intensity training. As I've said before you should check with your doctor before starting on any new training program, that is especially true for high intensity interval training like the Tabata protocol.

You wouldn't hit this ramp when first starting to snowboard; don't do with interval training.



Work your way into it.

Be safe. Ramp up your training by listening to your body. There are three ways to ramp up to the Tabata protocol: intensity, duration, and frequency.



## INTENSITY

To ramp up with intensity just back off on how hard and fast you do each movement. The Tabata protocol calls for the work intervals to be performed at 170% of VO2Max. That means you inhaling and exhaling 70% more than your lungs can actually process - you'll be breathing hard. So when you start just take it slower. Start with an intensity where you can easily make it through the entire 20 second work interval without stopping.

## DURATION

The second way to ramp up to the Tabata protocol is to modify the duration of the intervals. Basically, just stop the work period earlier and recover more. This method gives you an opportunity to work very hard, but have more time to recover between each interval. To use this approach start with 10 second work periods and 20 second rest periods. The switch to even periods of 15 seconds for both work and rest. Then switch to the Tabata protocol with 20 seconds work periods and 10 second rest periods.

## FREQUENCY

The third method of ramping up the Tabata protocol is by adjusting your training frequency. Start off with only one Tabata training session per week. After a few weeks add another session. Then again after another few weeks add the third session. Your body needs time to recover the intense workout of the Tabata protocol, do not do more than 3 interval sessions per week.



# Tabata Sprints

Start simple. That's true in most walks of life and training with Tabatas is no different. Start with Sprints. Sprinting is a perfect exercise for Tabata training, it will tax your body's aerobic and anaerobic systems.

Be sure to warm up first. Especially when performing sprints it is essential that you warm up your hamstrings. It is very common for people to pull their hamstrings by jumping right into fast sprints. Going from cold to full-on sprints is a sure path to an injury; don't do it.

Spend time doing a full dynamic warm-up and some medium speed jogging. Get your legs moving.

With Tabata Sprints start with one session per week. Start with this sequence and move to the next interval structure when you are ready to raise the intensity. Feel free to scale the number of rounds down when you start as well. Be smart, know your limits, and safely push yourself.

## STARTER INTERVAL SPRINTS (10-20)

A great way to start is to find an open space, like a football field, that is flat and grassy. Set up your timer for 10 second work intervals with 20 second rest intervals. While this isn't the Tabata protocol, it will help you start training with intensity followed by rest periods. The longer rest periods will be needed when you are first starting. When you sprint you should be going at 80-90% of your all-out-maximum. At the end of the work interval you should be breathing hard; that's the goal.

Sprint, then walk. Walk slowly during your 20 second rest interval. When that is done, you will have started to recover, but will still be breathing faster than normal. That is the goal. Interval training doesn't allow you time for full recovery. Each round adds progressively to your overload.

Turn around and sprint back towards your starting point for your second work interval. Then walk for the rest interval. Continue this back and forth pattern for your rounds; don't do more than 8.

## SPLIT SPRINTS (15-15)



When you are ready to step-it-up just change the interval structure to be even work and rest intervals of 15 seconds. Again sprint out, walk to recover, then turn around and repeat the same thing coming back towards your starting point.

This interval structure is pushing your body to recover in a shorter amount of time.

## TABATA SPRINTS (20-10)

Now step-it-up to the true Tabata protocol. Set your timer to 20 second work intervals with 10 second rest intervals. It is okay to begin with fewer rounds, like 4 rounds instead of 8.

Sprint, walk. Sprint, walk.

With this interval structure your body is being forced to start again without full recovery. The key to getting the benefits of the Tabata program you need to be in shape enough to sustain the intensity during each interval. Don't be discouraged if you can't. Tabata intervals are still great workouts and you will see improvement if your 8th round isn't as powerful as the 1st.

But do not let your form get sloppy. This is why starting with sprints is an excellent way to start Tabata training. If you found a nice grassy field for your sprints your risk is ... falling in the grass. Not bad. When you move to more advanced Tabata training you will need that foundation to keep moving safely.



# Tabata Sprint Video

Seeing is believing. I chose not to edit out any of this video so you can experience the Tabata protocol right along with me. I setup the tripod on the end of the field so you get to see me in “3D” running away from and back towards the camera. It isn't captivating video, but I wanted you to see how this form of Tabata training works.

[See the Tabata Sprint Video](#)

Get out there, find a field, setup your timer, and get going!



Let me hear how it goes. I love to hear back from you. Send in your victories, your progress, your questions, or even your frustrations. I want to hear from you - just submit it on my [contact page](#) and let me know you've read the Cube Dweller Fitness Introduction to Tabata Training.





# Related Research

<http://www.ncbi.nlm.nih.gov/pubmed/8897392>

<http://www.ncbi.nlm.nih.gov/pubmed/21113312>

<http://www.ncbi.nlm.nih.gov/pubmed/20683609>

<http://www.ncbi.nlm.nih.gov/pubmed/9139179>



# Who am I?

I am not Bulgarian. I am not a certified personal trainer, yet. So who am I and why bother reading a fitness program from me?

I am a lifelong athlete and in many ways a regular guy. Depending who you ask I am either a beast or an old man. Take your pick. The combination is very accurate. While I've been consuming air for over forty years I have been fighting the battle of getting old. In the process I have managed to stay in shape while many of my peers have opted for a different shape, something more spherical. Unlike many trainers, I don't live in a gym. I don't have the freedom to workout anytime, or even multiple times during the day. I'm a regular guy with demands on my time, but determined to stay in shape to enjoy all life has to offer.



My wife and I live in Colorado. That means several things when it comes to fitness that you should know. Because I live in Colorado my approach to training is biased because of two things: oxygen and mountains.

First, I don't have as much oxygen as the majority of people on the planet. My home is roughly 7,000 feet above sea-level. I've had co-workers get to the point where they had to move to a lower elevation to survive. Their health had declined enough that the limited oxygen was starting to cause serious problems with their health. They had to move to survive. I workout to be able to not just survive, but aggressively explore life even with limited oxygen.

Second, I have mountains in my backyard. Well, close enough. When we get out to play, we end up in the mountains. For fitness that means just about everything we do has "elevation change" mixed in. That could be hiking, running The Incline, trail running, or snowboarding. What that really means is anything I do will put tremendous demands on my legs.

So my bias is to do training that will improve my lung capacity and develop strong tireless legs. Those two biases are good for you, because they will apply to just about anything. If you want to lose fat, engage the largest muscles in your body doing interval workouts. If you want to build muscle, work your entire body doing compound movements. If you want to be able to enjoy chasing your kids around, do intervals. These two simple biases will help you get ripped and ready for anything life throws your direction.



But still, why me? If you've read Strengths Finder, or Strengths Finder 2.0, you know that the authors suggest that we are deeply wired with core strengths. These are the things that we both enjoy and excel doing. My top strength is LEARNER. I consume information. I am trained as an electrical engineer. Deep down in my personality is a desire and the tools to dig into any topic, find patterns to do whatever it is efficiently, then create defined repeatable processes to make it happen. I've taken that maniacal focus and aimed at fitness for busy people who are hard pressed for time and spend inordinate amounts of time sitting.

I've dug in, so you don't have to. I've poured through other sites. I read, and reread, research abstracts to understand the bleeding edge of fitness research. I've talked with other trainers. I've applied my top strength as a LEARNER and an engineer to pull together a program that you can do with minimal equipment in a small space that can transform your fitness. I'm wired (see I warned you that I'm an electrical engineer) to build programs like this. Dig deep, find what works, and share it.

Thanks for reading through and trying out this program. I look forward to hearing back from you. [Ask questions](#). Tell me what rocks. And yes, if something is confusing or worse, bad, let me know. Your feedback helps me make it better. When I update this product I'll be sure to let you know. Help me make this product better as you use the information to improve yourself