

EXPRESS FITNESS with Tabata

Quick Start
Guide to High Intensity
Interval Training



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Express Fitness with Tabata

Thank you For Downloading

Thank you for downloading this guide. If you are anything like I was just a few short months ago you probably still have some doubts about Tabata training and High Intensity Interval Training (HIIT). That's no surprise – you only need to do a quick search on the internet and you will see dozens of headlines like these:

“Get ripped in 30 minutes per week”

“Fat Free – in just 3 ten minute sessions per week”

“Get the six pack you have always wanted in just 3 short training sessions a week”

Burn up to **9x** more fat
and calories than with traditional cardio

Sounds brilliant – but is it true?

The answer is, as usual, yes...

And no....

Please read on.

What is Tabata?

Tabata is based on a continuous series of 8 sets of exercise each done with maximal effort for 20 seconds followed by 10 seconds of rest. It doesn't sound much – A Tabata workout only lasts 4 minutes – 8 sets of 30 seconds.

It was developed by Dr. Izumi Tabata from the National Institute of Health & Nutrition in Tokyo in 1996. Dr Tabata was working with Olympic Speed Skaters. Improvements in performance for such elite athletes can become difficult to attain.

Dr Tabata's work was based on 3 principles:

- Intensity

The plan had to be of such high intensity that it acts as a stimulant to accelerating the pace of the metabolic rate of the athlete.

- Fitness

The plan was meant to enhance fitness both aerobic and anaerobic.

- Brevity

Brevity of the plan had to be ensured so as to avoid damage to the body

The results were remarkable.

Dr Tabata's work showed a step change in performance for elite athletes. Athletes that were already at a peak of fitness and ability make significant improvements. It became known as the '4-Minute Miracle'.

Not Just For Elite Athletes

A controlled study using more averagely capable athletes also showed significant gains in fitness. The group following a Tabata protocol of 4 minutes intense exercise 4 times a week showed larger gains than a group exercising at lower intensity for 1 hour periods 5 times a week.

Benefits From Tabata

This guide would never have been written if I wasn't 100% convinced on the benefits Tabata can deliver. Being a slightly skeptical individual I have personally reviewed the literature and scientific studies on the effectiveness and applicability of HIIT. While this guide focuses on Tabata training there can be no doubting that HIIT and Tabata really do work.

Why Tabata

Tabata is only one approach to HIIT. Its major advantage is that it is very easy to understand and apply. From personal experience here's what I know Tabata training can do for you:

- Rapid results – measurable results can be achieved very quickly (you will feel the effects within days) and with far less time working out than with traditional training methods. By measurable I mean:
 - Fat Loss
 - Improved cardio – Improved **VO2** max ([see sidebar](#))
 - Muscle building/toning
 - Increased speed and agility
- HIIT can (should) be used alongside other exercise plans
- You will feel good – I promise.

So why do I say the answer is mixed?

One of the things you don't see mentioned much is just what 'High Intensity' really means. It is not just your usual aerobics or circuit training class done a bit harder. For HIIT to work you absolutely must work to your maximum capabilities all the time.

Tabata is based on a series of 8 sets of exercise each done with maximal effort for 20 seconds followed by 10 seconds of rest. It doesn't sound much – A Tabata workout only lasts 4 minutes – 8 sets of 30 seconds.

A high intensity sprint for 20 seconds means you sprint, flat-out for 20 seconds. If you are doing squat thrusts you do as many as you possibly can for the whole period – no excuses, no exceptions.

In reality it is difficult to fully complete a true Tabata workout – particularly when first getting started.

Have no doubts – Tabata, done properly, is tough (so do read our [medical disclaimer](#)).

Put in the effort and you will be amazed at the results you can achieve

What's all this about VO2?

Whenever anyone talks about HIIT on the internet you are sure to see reference to VO2 and VO2max in particular. VO2 is a measure of the amount of Oxygen you consume per minute per kilogram of body mass.

VO2max is the measure of your VO2 under maximal exercise conditions. It is the maximum rate at which your body can consume oxygen.

VO2max can only be accurately measured on ergo type (treadmills, static rower, exercise bike etc.) machines and by the physical measurement of the oxygen consumed. (Picture treadmills in labs and oxygen masks...)

As most of us will never have

Only You Know Your Maximum Capability

Only you know your maximum capability. It is not about how many or how fast you can go compared to someone else. When you first start with Tabata your maximum effort capability will be relatively low.

That's OK. You are doing this to improve.

Performing to your maximum is all up to you.

Medical Disclaimer

Tabata was designed to improve the performance levels of elite athletes. Tabata should not be done to get fit but to improve your overall fitness levels.

The high intensity nature of Tabata training can place high levels of stress on the body including cardio, muscles and joints. As with any other exercise regime you should consult your medical practitioner if you have any doubts on whether you should start or not.

The levels of stress on the body can lead to injuries – particularly when exercises are not performed correctly. You should weigh the benefits of Tabata Training against the risks before starting a Tabata regime.

What Almost All Exercise Guru's Get Wrong!

There is an enormous temptation to think that if 4 minutes intense activity per day is good then exercising for longer must be better.

Almost all Exercise Gurus offer 20, 30 and even 40 minute Tabata routines. Not only is this wrong – it is positively dangerous.

One of Dr Tabata's key principles is '**brevity**'. If you attempt to exercise at your maximum effort for longer and longer periods your risk of serious muscle or skeletal injury increases dramatically.

Do not fall into the trap of '4 minutes good – longer is better'.

By all means use Tabata as one component of your overall exercise regime. Just don't try and make it the basis of all the exercise that you do.

Why Choose Tabata?

There can be many reasons for choosing Tabata in your exercise plans:

- Time – it can be very difficult to find the time to exercise
- Results – you may be disappointed with the results from your existing exercise
- Challenge – some people simple relish the challenge that high intensity exercise can provide
- Breaking through a plateau – better athletes often find that they have reached a plateau in their performance. No matter how hard they try they simple can't step up to the next level. Tabata was originally designed for elite athletes with just this objective.

Researchers found that professional athletes who kept to the Tabata routine four days per week for six weeks had a 14% improved aerobic capacity increase and an improved anaerobic capacity of 28%.

A control group followed a running program for six weeks. They worked at 70% capacity for 1hour a day – 5days per week. Their aerobic capacity increased by 9.5% but there was no effect on their anaerobic capacity.

How Does Tabata Work?

Tabata is designed to engage your body's aerobic and anaerobic systems to do the job. For those of you who don't know the difference between aerobic and anaerobic, here is a brief explanation of the two:

- **Aerobic** – This is the type of exercise you're most familiar with for a cardio workout. Aerobic exercises use your cardio respiratory system, i.e., heart, lungs and blood vessels. Aerobic actually translates to "with oxygen" and uses the oxygen for fat and carb burning to produce energy. In an aerobic exercise, you use arms and legs in repetitive movements.
- **Anaerobic** – These exercises target the muscles in your body. Training anaerobically means training without oxygen. In Anaerobic exercise the muscles must use their own stored energy.

Your body must continue to work to replenish the energy stores within muscles long after the actual anaerobic exercise is completed. It is for this reason that you continue to obtain benefits from your high intensity workout for up to 24 hours after it is completed

In reality both Aerobic and Anaerobic systems attempt to work together when we exercise. For explosive, high intensity exercise such as sprints, hill climbs

and the like it takes a while for the Aerobic system to kick in so it is always playing catch up.

By using very short periods of intense activity with brief periods of rest you are effectively engaging and constantly challenging both systems.

Studies have found that when you combine the aerobic and anaerobic exercises such as with the Tabata method, you're joining forces of two powerful agents that can whip your body back into shape in less time while losing unwanted fat.

Tabata Training

Principles

The nature of Tabata training has already been mentioned. It is based on the continuous repetition of 8 sets of 30 seconds of exercise. Each exercise should be done at maximum intensity for 20s followed by 10s of rest.

In Dr Tabata's original work the elite athletes did the same exercise - sprints on ergo machines - repeated 8 times. Their performance was closely monitored in each set. If they fell below their nominal peak performance levels they did not complete the exercise set.

Subsequent studies have shown that enormous benefits are obtained following the Tabata outline but with more mixed exercise sets. Nor do you need to stop if you drop below your peak performance. Do everything you need to do to complete your set of 8 exercises each time.

Just remember – you must perform each intense exercise period to your maximum capability. Every time!

The good news bit here is that only you know what your maximum effort means. You are not competing against anyone else in the gym. The key is that you perform to your, personal maximum.

Good Tabata Exercises

Good Tabata exercises share one characteristic: they are whole body exercises done at maximal effort. That definition may not seem too clear so it is probably better to provide some examples of good exercises:

- Sprints
 - Running
 - Swimming
 - Cycling
 - Rowing
- Dips
- Hill climbs
- Stair/stadium runs
- Squat thrusts
- Boxing – heavy bag
- Shuttle runs – great for court sports fitness

Not so good Tabata Exercises

You will see many Tabata sets including exercises such as:

- Push-ups (press-ups)
- Sit-ups
- Jumping Jacks
- Burpees
- Plank

These are not as good as it is very hard to work at a maximum effort all the time.

Getting Started

You need to have a base level of fitness before you engage in Tabata exercise. Even though the workouts are of short in duration they'll tax you to your limits.

You can get fit with Tabata but you will progress much better if you already have a decent level of cardiovascular fitness.

Four minutes doesn't sound long but if you're not in shape Tabata may not be for you yet. Start out with another type of exercise and work your way up to the intensity and power that Tabata demands.

If you've been exercising for a while and want to take it up a notch or are bored with your current exercise regimen, start out with Tabata in the beginning level and work up to intermediate and then to athletic level.

Stepping It Up

We have talked a lot about the toughness of Tabata. The good news is that you don't need to start out with the 20:10 work to rest ratios. Research shows the key performance benefits stem from the periods of intense activity. The ratio of work to rest is not critical to start with

Tabata training works can work at all levels:

- **Beginner** – Choose any full body exercise you're comfortable with. You'll want a timer so that you don't always have to look at the clock. Perform the Tabata workout on a ratio of 20:60 (20 seconds of intense sprinting to 60 seconds of walking (walking between sprints is much better than stopping completely.))
- **Intermediate** – Once you feel a little more comfortable you can move into the intermediate level. Your intensity period always stays at 20seconds so you might move to 20:30 and then onto 20:20 ratio.

Don't be surprised if the step up is difficult at first. It is OK to increase the rest period to a level that you can manage.

- **Advanced (Athlete)** – If you are in good shape you can try Tabata at its original level (remember – this was developed for Olympian speed skaters. These guys were already elite athletes)

Tabata Timing.

Beginner

A typical Tabata protocol for a beginner would look like the following timetable if you were working out on a treadmill:

- Warm up to prevent injury by walking briskly for 2 minutes.
- Run at a sprint as hard as you can for 20 seconds.
- Walk to recover for 60 seconds.
- Repeat 8 times.
- Cool down
 - walk for 120 seconds
 - Stretch for 120 seconds

If you add that up it comes to 13 minutes. Ideally you should do this at least 3 times a week. That's just 39 minutes per week including warm up and cool down!

Intermediate

Taking a similar routine and applying the 20:30 or 20:20 ratios we mentioned above gives workout times of between 11:20m and 12:40m. That's between 34 and 38 minutes, total per week

Advanced

The original Tabata routine outlined here comes out at 10m a session. That's just 30m per week.

That's remarkable.

Especially when you consider that you are only actually exercising for 2:40 minutes.

Want to work out at home? Short of space? Not got a treadmill?

Try this.

Run on the spot. Lift your knees as high as you can in each step. Really pump your arms as you run. You'll be amazed at how much energy you can burn.

Want to step this up?

Hold a small soda bottle in each hand. Concentrate on making sure you pump your arms throughout the set.

You will feel the difference in arms and shoulders very quickly

Table 1 - Tabata Workout Times

	Beginner	Intermediate 1	Intermediate 2	Advanced
Warm Up	120	120	120	120
Exercise	20	20	20	20
Rest Period	60	30	20	10
Total Exercise Time	640	400	320	240
Cool down	120	120	120	120
Stretching	120	120	120	120
Workout time (s)	1000	760	680	600
Workout time (m)	16:40	12:40	11:20	10:0

Do you notice something really cool about this table? The more advanced you get the less time you actually spend on training. This is really important. You must not fall into the trap of thinking that if 30 minutes of Tabata is good then 5 x 20 minutes is better. There is a very real danger of injury for little or no discernible further positive benefit.

Physiological and Psychological Benefits of Tabata

Physiological

The physiological benefits of Tabata are perfectly clear when you realize that professional athletes and Olympians use the Tabata method in their intense training program to build muscle and endurance.

Hollywood stars and other celebrities are also choosing Tabata to get their bodies back in star quality shape after having a baby or putting on weight for a film.

Here are some obvious – and not so obvious – physiological benefits of adding Tabata to your exercise regimen:

1. **Fat Loss** – If you're trying to lose unwanted pounds or simply to tone your body, you should know that Tabata increases your metabolic rate about 15 times that of the basic metabolic rate. The short, but intense workout challenges your body to consume energy and burn fat. The great thing about Tabata is that by using both the aerobic and anaerobic methods in unison, you'll keep burning fat even after the exercise is over.
2. **Build and Retain Muscle** –When you diet to lose weight, you often lose valuable muscle tissue. When you engage in the Tabata interval training method, you're increasing the ratio of lean body mass to fat.

Tabata puts demands on the muscles, meaning that more muscle tissue is needed to perform, so your body mass to fat increases and you end up both building muscle mass and retaining what you already have. Grow muscles, lose fat.

3. **Increased Cardio Health** – By pushing yourself into the anaerobic zone as in the Tabata workout, you're producing extreme effects. Studies have shown that after only 8 weeks of practicing Tabata, those who cycle could perform twice as much as before.
4. **Turbo-charged Metabolism** – Your metabolism will be on high energy and fat burning mode after a Tabata workout routine. This is great news for our aging bodies because it keeps you looking and feeling young both inside and out.

Tabata training is great for professional athletes, but it's especially good for the average person who doesn't have a lot of time to devote to hours of working out in the gym but wants to have a rocking hard body, have more strength and more energy.

Psychological Benefits of Tabata

One of the biggest psychological benefits of Tabata training is that you see results fast. The results will be well worth the intense workout routine that goes into a Tabata workout. Your body will be changing for the better – and you'll feel better mentally.

Some of the psychological benefits of Tabata include:

1. **Less Stress** – If you've had a bad day, you'll begin to look forward to the Tabata workout to rid the layers of stress like peeling an onion. During the intense workout, your brain will produce more norepinephrine, which is the chemical that your body uses to reduce effects of stress.
2. **Never Boring** – Choose your favorite way to exercise with Tabata and you won't be bored into dropping out of fitness. Tabata cures boredom and eliminates the gripe that exercise takes too much time out of the day.
3. **Self-Confidence Surges** – It's a given that you're going to look your very best after a few weeks of working out with the Tabata method. Scientifically, it's been proven that exercising can improve your self-image no matter what your weight, age or gender.
4. **Calm Anxiety** – Those calming endorphins and other chemicals released during exercise are multiplied tenfold in Tabata training. If you have an anxiety disorder, moderate or high intensity exercises will help to calm you down and handle those anxious situations better.
5. **Helps You Relax** – Sleep has never felt so good after you exercise using the Tabata method. The chemicals released from your brain during a high-intensity (with intervals) Tabata workout helps the body drop its temperature with you're ready for bed and gives the body a signal that it's time to relax. (Never work out just before bedtime.)
6. **Prevents Memory Loss** – Tabata training boosts your ability to remember and learn new things. When you sweat (and you will), your body increases the production of hippocampus cells which are responsible for your memory.
7. **Inspire Others** – Who doesn't like to be praised? People will begin to notice when you're at your physical and psychological best and you can be an inspiration to others by encouraging them to work hard as you did for the results.

Tabata training can have far reaching effects beyond the workout. You'll gain self-confidence, get relief from depression and think more clearly – besides having the lean, hard body you always wanted.

Tabata and You

Practical Tabata

If you take a look at the '[Good Tabata Exercises](#)' you will notice that you don't need special equipment. Nor do you need a gym membership. You can get an outstanding Tabata workout practically anywhere.

My particular favorite is a small hill near to my home. Sprinting up hill is very intense. Walking back down can be a pleasure.

No hill? No problem. 20 seconds of 10 yard shuttle runs works just as well. You can step this up just a little by touching the ground at the end of each shuttle. Use alternate hands. Make sure you don't always turn the same way too.

Want to exercise at home (or in a hotel room)? This is just what I do:

- Warm up:
 - 10 head and neck rotations – 5 each way
 - 10 shoulder shrugs – 5 forward: 5 back
 - 10 arm rotations – both arms right up overhead – 5 forward: 5back
 - 10 pelvis rotations – feet still on the floor – rotate hips – 5 clockwise and back
 - Jog on spot for 20 s – lift knees as high as possible towards the end of the time
 - Hamstring and quad stretches
- Tabata
 - 20 s - Sprint on the spot lifting knees as high as possible. Pump arms as though sprinting on the track
 - 10 s – rest
 - 20 s – Crunchies (a sit-up lifting legs and torso with knees reaching the chest in the middle – it can be difficult to maintain intensity)
 - 10 s – rest
 - Repeat 4 times
- Warm Down
 - I essentially repeat my warm up but omit the jogging.

Tabata at the Gym

If you do have access to gym equipment rowing machines and exercise bikes are also great for Tabata training. I recommend that you row or cycle slowly

for the 10 s rest periods rather than come to a full halt. It is much easier and smoother to get back to maximal effort if you are already moving.

Spinning is an outstanding interval training tool. Just remember, spinning bikes have fixed wheels. It may not be easy to get 10s of rest when the pedals are still spinning at high speed.

Many people use treadmills. Personally I find they are not the most effective as there is a time lag while the treadmill speeds up or slows down.

I saw a guy doing intervals on a treadmill. He had it cranked up to his maximum effort speed and incline. Instead of changing the treadmill settings he left it set on high for the full set. For his 10 seconds rest he would grab the hand rails and jump his feet to the sides of the deck. It looked pretty impressive.

One time when he jumped back on he didn't get his feet moving fast. There was a heck of a crash when he fell and the treadmill threw him out the back at full speed!

Tabata Equipment

As we have noted – you don't need any special exercise equipment to get started with Tabata. Here are some items that may make it all a bit easier.

Timer

It's a great idea to use an audio timer rather than trying to watch a clock or stop watch. There are plenty of free HIIT timers available for both iPhone and Android. Make sure you install one with provision for Tabata already included – it makes your life so much easier.

If you are happy to spend a little money you can buy programmable timers. You can then enter each exercise into the timer which will prompt you for what is coming next. In my hotel room example I got an audio prompt to 'Sprint', 'Rest' and 'Crunchie'. Sounds simple but it can really help by the time you reach your 6th or 7th rep.

It's also a good tool to have so that you can time your intensity and your recovery intervals. It's important to stick to the time limits during Tabata to benefit from both the aerobic and anaerobic process.

VO2max Calculator

You are definitely going to want to measure any performance change. It will take a while for you to see the effects in terms of fat loss or weight changes.

The best way to get an immediate measure of your changes in fitness will be by using a VO2max calculator.

As already mentioned you can get plenty of free apps for both iPhone and Android. I haven't used any so spend a bit of time and find one that you feels works best for you.

Heart/Pulse Rate Monitor

If you are happy to spend a little more money there are some great heart and pulse rate monitors. You wear these while exercising. The better ones record throughout the whole exercise period and allow you to play it back through your PC or phone later for analysis.

Final Thoughts

Tabata has been proven to work at pretty much every level of fitness from Olympic Athletes to absolute beginners. It seems that practically every exercise guru has their own Tabata routine.

Unfortunately, a lot of what is sold as Tabata doesn't match the original research. The philosophy of 'If 4 minutes is good – 20 minutes is better' can be positively detrimental to your fitness and health.

Many of the exercises now included in 'Tabata' routines are not suitable. Good exercises must engage the whole body and must be capable of being performed at maximal capacity at all times. It is very questionable whether push-ups or 20 second planks fulfil either criteria.

Finally, Tabata isn't for everyone. There is an obvious risk of increased injury – particularly if you don't warm up well before starting.

Working at such high intensity, even for very short periods, is not pleasant. Many people find they prefer more traditional exercise. If this is you I would strongly suggest you take a look at [Rusty Moore's Visual Impact - Cardio](#)

It's fair to say that Rusty does not buy the whole of Tabata and HIIT. Instead, he takes the best of HIIT and traditional approaches to give you cardio and fat burning master exercises. It could be well worth your while taking a look

Thanks for Reading

Thank you for reading this report. As I think you can see – I could easily sell the information here – and I might decide to do so at some point in the future.

Right now I am working on a comprehensive guide to HIIT workouts. It looks like it will be great with lots more information on HITT and Tabata.

The new guide will have dozens of HIIT exercises with full illustrations and instructions. Many of the exercises are specifically designed for the home.

I will be sending you information on the new Workout Formula over the coming weeks. Please look out for emails from HIITWorkoutFormula.com