TomTom Fitness Age User Manual

1.0

1st September 2017



Contents

All about TomTom Fitness Age	3
Which devices can I use?	4
Quick tutorial	5
Your Fitness Age	5
Fitness Points	
Effort Matters	7
Everyone is Different	7
Be active every day	8
Consistency is the key	9
Improving Fitness Age	9
Jeff and Julie do Fitness Age	11
Viewing your Fitness Points and Fitness Age	12
Viewing Fitness Points on your watch	
Viewing Fitness Points on the TomTom Sports App	
Viewing Fitness Points on the TomTom Sports website	
Viewing Fitness Age on the TomTom Sports App	
Viewing Fitness Age on the TomTom Sports website	15
Viewing VO2max on the TomTom Sports App	16
Viewing VO2max on the TomTom Sports website	16
Learn more about Fitness Points and Fitness Age	17
More about Fitness Points	
Fitness Points levels	
More about Fitness Age	
How is my VO2max calculated?	
How can I improve my Fitness Age?	
I'm not earning Fitness Points	
Similar activities won't earn similar fitness points	
Copyright notices	24

All about TomTom Fitness Age

TomTom Fitness Age is all about getting you active, inspiring you to get fitter, and improving your fitness level. You'll learn how effective your activities are, and you'll see personal recommendations to help you choose the best activity for you.

Finding out how fit you are requires some complex calculations! TomTom Fitness Age is an indication of how well your body functions physically, relative to how well it should work, based on things like your heart rate during activities, maximum and resting heart rates, activity, gender, age, height and weight.

Your VO₂max rate is used to calculate your Fitness Age, and this is the standard method used to determine a person's physical fitness. VO₂max is the maximum rate of oxygen that your body can use during exercise. Becoming fitter means your body can use more oxygen, so your VO₂max increases as your fitness level increases. VO₂max is calculated when you do a running activity like running, trail running, or treadmill, and have a relatively steady heart rate measurement for more than 15 minutes. To learn all about VO₂max and how your Fitness Age is calculated, see Learn more about Fitness Points and Fitness Age.

TomTom Fitness Age will help you get going to improve your Fitness Age, and help you learn more about your fitness activities:

- How fit am I really?
- Have I done enough during this activity or should I do more?
- Did I do enough this week or do I need more exercise?
- Is this an effective activity or is another activity better for me?
- What should I do next?

Important: This product feature uses advanced heart rate analytics provided by Firstbeat. The information provided by TomTom Fitness Age is an estimation of your fitness level and does not constitute medical advice, nor is it meant to cure, treat or prevent a disease. We advise you to consult your doctor before starting a new exercise program.

Which devices can I use?

You can earn and see Fitness Points on the following TomTom Sports watches that have heart rate monitoring:

- TomTom Runner 2
- TomTom Runner 3
- TomTom Spark
- TomTom Spark 3
- TomTom Adventurer

Quick tutorial

Your Fitness Age

TomTom helps you to discover how fit you really are by calculating your personal Fitness Age.

TomTom Fitness Age is an indication of how well your body functions physically, relative to how well it should work, based on things like your heart rate during activities, maximum and resting heart rates, activity, gender, age, height and weight.

The more effective activity you do, the better your Fitness Age becomes.

Fitness Points

Start working on your Fitness Age by earning Fitness Points. You earn Fitness Points when you record your activity on a TomTom Sports watch with heart rate monitoring. The amount of Fitness Points you earn depends on many factors, including your heart rate during activities, maximum and resting heart rates, activity, gender, age, height and weight.

Your daily Fitness Points are shown in bubbles on your TomTom Sports watch, the TomTom Sports App, and the TomTom Sports website.

Note: You can only earn Fitness Points when your watch can measure your heart rate. When your watch is not on your wrist, for example when it's worn over your ski jacket or when you're using the bicycle mount, your heart rate is not measured unless you are wearing a heart rate monitor and chest strap. Heart rate is not measured in the **Swim** activity.

Important: You must use the correct activity on your watch to record your sports activity, for example use **Run** when you are running, and **Gym** when in the gym. Using a different activity can affect your Fitness Points and give you an incorrect Fitness Age.

Tip: Use the Freestyle activity to track your daily activities like walking to work or walking the dog to earn more Fitness Points.

If you haven't earned 500 points yet, select today's Fitness Points balloon to see personal recommendations to help you to get active.



Effort Matters

You earn more Fitness Points as your heart rate increases. A short run will earn you more Fitness Points than a long walk because your heart rate will be higher when you run.



Everyone is Different

Fitness Points are very personal. Your Fitness Points represent your activities and your current fitness, based on things like your heart rate during activities, maximum and resting heart rates, activity, gender, age, height and weight.

Everybody will earn different points for the same activity. For example, if you are fit it will take you more time or more effort to earn the same amount of Fitness Points as someone who isn't fit. As you get fitter, you'll have to work harder to earn your Fitness Points.



Be active every day

Fitness Points help you to be active and to increase your fitness. Try to earn 100 Fitness Points or more every day to help you keep a healthy lifestyle. Earn over 500 Fitness Points to start improving your fitness and your Fitness Age.



Consistency is the key

It's okay to miss a day once or twice a week, but consistency is the key to improving your fitness. Try to do regular activity, but remember not to do too much.



Improving Fitness Age

If you want to improve your Fitness Age, you need to work a bit harder.

Earn a star each time you reach 500 Fitness Points. Keep earning three stars in a seven-day period to improve your Fitness Age. If you earn more than 1500 Fitness Points in a day and reach the Overdrive level, it's a good idea to take things easy the next day to let your body recover.

Remember that as you get fitter, you'll have to work harder to earn your Fitness Points.



Jeff and Julie do Fitness Age

Let's take a look at two people to see how they earn Fitness Points:

- Jeff runs only once in the weekend, but does no other exercise.
- Julie is a frequent runner. She runs every morning, and has been doing this for 6 months.

When Jeff runs 3 km, he earns 500 points and reaches Improving on the points scale.

When Julie runs 6 km she also earns 500 points and reaches Improving on the points scale.

Because Julie is currently fitter than Jeff it takes her more effort to earn points. Julie has to run more or run faster than Jeff to earn the same Fitness Points.

Fast running or intensive exercise earns more points than walking or less strenuous exercise. With a little more effort each day, such as running a little bit faster or more frequently each week, Jeff could significantly improve his cardio fitness level and his Fitness Age faster.

Viewing your Fitness Points and Fitness Age

Viewing Fitness Points on your watch

You can see your overall daily Fitness Points on your TomTom Sports watch.

Note: You can only earn Fitness Points when your watch can measure your heart rate. When your watch is not on your wrist, for example when it's worn over your ski jacket or when you're using the bicycle mount, your heart rate is not measured unless you are wearing a heart rate monitor and chest strap. Heart rate is not measured in the **Swim** activity.

Press left from the Clock to go to the Activity Tracking screen. Press down to find the Fitness Points screen. You'll see your daily Fitness Points total together with the fitness level you have currently reached, and the amount of stars you've earned in the last 7 days.

Tip: Set **POINTS** as a goal in the Tracker menu to show your Fitness Points first in the Activity Tracking screen.

For example, the watch below shows you that all your activities today have earned you more than 500 points, so you're improving your fitness. The 3 stars show you that you've earned more than 500 points 3 times in the last 7 days.



You can also see your total Fitness Points while you are in an activity as one of the metrics screens, so you can see if you've reached your goal or whether you should do more. When you have set **Points** as your goal, you'll get alerts when you've reached **Active**, **Improving** or **Overdrive**.



Viewing Fitness Points on the TomTom Sports App

When you've synced your activity details with your TomTom Sports account you can see your Fitness Points in the TomTom Sports App. Select the Fitness Points button at the bottom of the screen to see the points you earned in the last 7 days.



Select a daily points bubble to see the activities you did to earn those points. You can then select an activity to open the activity details screen.

Viewing Fitness Points on the TomTom Sports website

When you've synced your activity details with your TomTom Sports account you can see your Fitness Points on your TomTom Sports website page. Select the Fitness Points button at the top of the home screen to see the points you've earned in the last 7 days.



Select a daily points bubble to see the activities you did to earn those points. You can then select an activity to open the activity details screen.

Viewing Fitness Age on the TomTom Sports App

When you've synced your activity details with your TomTom Sports account you can see your Fitness Age in the TomTom Sports App. Select **Fitness Age** on the **Trends** screen to see your current calculated Fitness Age, and the month and year trends.



Viewing Fitness Age on the TomTom Sports website

When you've synced your activity details to your TomTom Sports account you can see your Fitness Age on your TomTom Sports website page. Select the **Progress** tab, then select **Body** from the drop-down menu. Select **Fitness Age** below the graph to show your Fitness Age trend. You can filter the trend for week, month, year, and all.

Viewing VO2max on the TomTom Sports App

When you've synced your activity details with your TomTom Sports account you can see your VO_2max rate and trends in the TomTom Sports App. Select **VO2max** on the **Trends** screen to see your current calculated VO_2max average, and the month and year trends.



For more information about VO₂max, see <u>More about Fitness Age</u>.

Viewing VO2max on the TomTom Sports website

When you've synced your activity details to your TomTom Sports account you can see your VO_2max rate on your TomTom Sports website page. Select the **Progress** tab, then select **Body** from the drop-down menu. Select **VO2max** below the graph to show your VO_2max trend. You can filter the trend for week, month, year, and all.

For more information about VO₂max, see <u>More about Fitness Age</u>.

Learn more about Fitness Points and Fitness Age

More about Fitness Points

You earn Fitness Points when you record your activity on a TomTom watch with heart rate monitoring. The amount of Fitness Points you earn depends on many factors, including how often you exercise, your heart rate during activities, maximum and resting heart rates, activity, gender, age, height and weight.

Note: You can only earn Fitness Points when your watch can measure your heart rate. When your watch is not on your wrist, for example when it's worn over your ski jacket or when you're using the bicycle mount, your heart rate is not measured unless you are wearing a heart rate monitor and chest strap. Heart rate is not measured in the **Swim** activity.

Your Fitness Points represent your activities and your fitness. Every time you do an activity and your heart rate is measured, you earn Fitness Points. The rate at which Fitness Points are earned is based on your current fitness level and on the intensity of your activity. The more intense your activity and the longer you do your activity, the more points you earn. As you get fitter, you'll have to work harder to earn your Fitness Points. If you are fit it will take you more time or more effort to earn the same amount of Fitness Points as someone who isn't fit.

You can do too much activity in one day. If you exceed the Fitness Points **Overdrive** limit in one day then you might be putting too much stress on your body, and this can cause illness and injury. Take a rest day if you feel tired.

Fitness Points can help you to improve your fitness. This is because they help you understand when you need to be more active or when you have done enough, and which activities earn you more points and therefore work best for you. You can then concentrate on those activities. For example, you can make an informed choice between a 30 minute commute by bike, or spending 10 minutes on a high-intensity workout.

Fitness Points levels

Fitness Points levels show you how active you are each day. There are three levels:

- Over 100 = Active
- Over 500 = Improving
- Over 1500 = **Overdrive**

Active

Earning over 100 Fitness Points means you have an active lifestyle, which can give you health benefits in the long term. At this level you won't be improving your Fitness Age, and if you are already fit then your fitness may be decreasing.

Improving

Earn over 500 Fitness Points three days each week and you will start to improve your fitness level and your Fitness Age. Up to 1500 points, the more points you earn, the better it is for you.

Overdrive

Earning over 1500 Fitness Points may not give you more health or fitness benefits. You might need a rest day the day after. When you keep getting into the overdrive zone the risk of injury or over-training will increase.

Important: If you do lots of exercise, for example if you are a marathon runner or race cyclist, you may find yourself easily earning overdrive Fitness Points each time you exercise. You must learn your own safe limits of physical exercise for the sport that you do. If you are in any doubt, consult a sports specialist for expert training advice.

More about Fitness Age

Fitness Age is an indication of how well your body functions physically, relative to how well it should work, based on things like your gender, age and weight.

The more effective activity you do, the better your Fitness Age becomes.

VO2max is used to calculate your Fitness Age, and is the standard method used to determine a person's physical fitness. It is the maximum rate of oxygen that your body can use during exercise per second, per body weight unit. Becoming fitter means your body can use more oxygen, so your VO2max increases as your fitness level increases.

To help you understand your current fitness level, we calculate your VO2max from your personal profile and an analysis we do on your heart rate while you are doing a running activity, or estimate it based on 24/7 tracking if you never do an activity. In laboratory conditions, VO2max is normally determined through an intense treadmill or home trainer test with a mask that really measures the oxygen flow into your body. It ranges from about 15 ml/kg/min to 100 ml/kg/min, with higher being better, and it's different for men and women. Tables 1 and 2 below include shows the spread and classifications for VO2 max. estimates by age and gender, as provided by The Cooper Institute.

From your measured VO₂max, fitness age is calculated by comparing to population averages of VO₂max by age and gender that can be found in the American College of Sports Medicine's Guidelines for Exercise Testing and Prescription (Ninth Edition). The VO₂max-to-fitness-age calculation is different for men and women, because men have on average a higher VO₂max than women in all age ranges. For example, if you are a 33 year old woman and your Fitness Age is 27, your fitness level is the same as the average 27 year old woman in this American College of Sports Medicine's study. In other words, because your VO₂max naturally deteriorates with age, you are doing great.

We calculate your Fitness Age from your VO_2max and other factors so you can see how you perform against others in your age and gender group. The lowest Fitness Age we show is 20 years.

How is my VO2max calculated?

VO₂max is calculated when you do a running activity like running, trail running, or treadmill, and have a relatively steady heart rate measurement for more than 15 minutes. VO₂ max is the maximum amount of oxygen your body can utilize during exercise, per kilogram of body weight, per minute. It is the standard method used to determine physical fitness and is an indication of your overall aerobic fitness level. A high VO₂max means you are able to exercise for prolonged periods at a higher power. Studies have shown that individuals with a high VO₂max tend to live longer and have a lower risk of cardiovascular diseases.

Note: If you never use your watch for running, but use it for 24/7 activity tracking and other types of activities such as cycling, gym, or other indoor activities, VO₂max is estimated based on your general activity level and will be less accurate.

During the first couple of days of use or if you never wear your watch for running or 24/7 tracking, VO₂max is estimated based on your profile and self-reported activity level, and will be less accurate. As your watch learns about your behaviour and heart rate versus speed analysis over time, VO₂max will become more accurate.

How can I improve my Fitness Age?

In your Fitness Age calculation, you'll see an indication of how fit you are compared to the general female or male of the same age, for example "You are less fit than 75% of men your age".

You can improve your Fitness Age by earning 500 Fitness Points or more, three times per week. This will result in a higher VO₂max over time. Depending on your fitness level, it may take weeks to months to start seeing bigger changes.

Tip: Use the Freestyle activity to track your daily activities like walking to work or walking the dog to earn more Fitness Points.

If you already have a high fitness level, for example a VO₂max of higher than 45 ml/kg/min for men, or higher than 39 ml/kg/min for women, you may already have reached the lowest fitness age of 20 years old. You can still improve your VO₂max by continuing to train. If you have reached an extremely high fitness level and VO₂max, it is possible that more training will not result in an increase to your VO₂max. Of course, training and gaining Fitness Points will still help you to maintain your Fitness Age, VO₂max and good health.

As you become fitter remember to update your weight in your profile. A lower weight will improve your VO₂max and your Fitness Age.

Hereditary factors can affect how your body responds to your training. Some individuals develop more or faster than others, and some may have difficulties in achieving significant fitness improvements.

Unhealthy lifestyle choices like smoking or unhealthy eating may cancel out your training effects and exercise benefits.

I'm not earning Fitness Points

We need your heart rate and activity data to calculate your Fitness Points. To earn Fitness Points, your TomTom Sports watch needs to measure your heart rate, and be in an activity.

Fitness Points can be calculated for running, treadmill, trail running, walking, cycling and indoor cycling, ski, snowboard (if the sports device is worn on your wrist), gym and freestyle activities.

You won't earn Fitness Points for the following situations:

- Doing an activity where your heart rate stays low.
- When your heart rate is not measured:
 - The heart rate sensor is switched off
 - Heart rate tracking is switched off.
- Activities where heart rate is not measured:
 - Swimming. This is a great activity that combines low impact movement with relatively intense activity. However, the heart rate monitor does not work in water.
 - Skiing or snowboarding when your watch is worn over your ski jacket.
 - Cycling when you are using the bicycle mount.

Important: You must use the correct activity on your watch to record your sports activity, for example use **Run** when you are running, and **Gym** when in the gym. Using a different activity can affect your Fitness Points and give you an incorrect Fitness Age.

Similar activities won't earn similar fitness points

Fitness Points are earned based on your current Fitness Age and VO₂max, and the intensity and duration of your activities. Although you are doing the same type of activity, your heart rate might behave different over activities on different days. For example, you might not be feeling well, you might have just started training after not training for a while, or there might have been a strong headwind. The times spent in higher heart rate zones earns you Fitness Points faster.

As you get fitter, the same type of activity, for example your 5k runs at 10 km/h, will earn you fewer Fitness Points than earlier activities. You'll need to increase your distance or pace to earn the same points.

There are also diminishing health benefits within activities. This means that it's better to do short and intense activities a few times each week, than one long activity. For example, the first 10 km of a longer run might generate points faster than the final kilometres.

You also can't compare your Fitness Points with another person's points because everybody will earn points at a different rate. For example, when you are fit and have a low Fitness Age, you'll have to work harder to get the same Fitness Points as someone who is just getting started. So as you get fitter, then the harder you'll have to exercise to earn Fitness Points.

Copyright notices

© 2017 TomTom. All rights reserved. TomTom and the "two hands" logo are registered trademarks of TomTom N.V. or one of its subsidiaries.

Fonts

Linotype, Frutiger and Univers are trademarks of Linotype GmbH registered in the U.S. Patent and Trademark Office and may be registered in certain other jurisdictions. MHei is a trademark of The Monotype Corporation and may be registered in certain jurisdictions.

Open Source Software

The software included in this product contains copyrighted software that is licensed under the GPL. A copy of that licence can be viewed in the Licence section. You can obtain the complete corresponding source code from us for a period of three years after our last shipment of this product. For more information, visit tomtom.com/gpl or contact your local TomTom customer support team at tomtom.com/support. Upon request, we will send you a CD with the corresponding source code.

AES code

The software included in this product contains AES code under Copyright (c) 1998-2008, Brian Gladman, Worcester, UK. All rights reserved.

Licence terms:

The redistribution and use of this software (with or without changes) is allowed without the payment of fees or royalties provided that the following conditions are adhered to:

Source code distributions include the above copyright notice, this list of conditions and the following disclaimer.

Binary distributions include the above copyright notice, this list of conditions and the following disclaimer in their documentation.

The name of the copyright holder is not used to endorse products built using this software without specific written permission.

Calorie calculations

Calorie calculations in this products are based on MET values from:

Ainsworth BE, Haskell WL, Herrmann SD, Meckes N, Bassett Jr DR, Tudor-Locke C, Greer JL, Vezina J, Whitt-Glover MC, Leon AS. 2011 Compendium of Physical Activities: a second update of codes and MET values. Medicine and Science in Sports and Exercise, 2011;43(8):1575-1581.