## EXHIBIT AI



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Community > Product Help Forums > Blaze > Cardio Fitness Score
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Cardio Fitness Score answered

|  | 06-28-2017 16:07 | ** |  |
| :---: | :---: | :---: | :---: |
|  | Hi! |  |  |
| adikeenan | My cardio fitness score, up to today, was 45.6, which is very good for women of my age. Today after I |  |  |
| Jogger | went for a 4 K run it dropped to 40 , which is average. I Just find this strange as I exercise nearly every day, |  |  |
| $\bigcirc 2 \times 000$ | 48 or 49. I just don't feel that 40 is very accurate but l'd like to know why it happened so suddenly. |  |  |
|  | Thanks! |  |  |
|  | Answered! Go to the Best Answer. |  |  |
|  |  | Reply |  |

## 1 BEST ANSWER

06-29-2017 06:53
© @adikeenan Start here with Fitbit article on cardio fitness score:
http://help.fitbit.com/articles/en_US/Help_article/2096/\#runs

Veteran Runner

- 2392 - 80 - 1836

You sound like a well trained athlete, from everything l've read in sports science I would expect your score to be stable. As VO2max is mostly genetic, I wouldn't expect significant $+/-5$ point changes unless you've gone from couch potato to athlete in a 3-6 month perlod (or lost substantial amount of weight). Also, for well trained athletes increases in score require serious VO2max training and even then some athletes will not see any change in score. These all point to an issue with how the Blaze is estimating your VO2max

I'm a cyclist and didn't try it on my Blaze, because it requires running. However I have seen reports on Charge 2 forum about the score going down after an easy run. And Fitbit link above states that more
is a new feature, and that data it needs -10 minute HR and pace on flat ground - is not always the most accurate on Fitbit devices. So if your Blaze is struggling to detect HR or pace accurately, that could also impact your score.

Try a Cooper's test to estimate your VO2max for comparison:
http://www.exrx.net/Calculators/MinuteRun.html
and for other ways to estimate:
https://en.wikipedia.org/wiki/VO2_max

The last estimation technique in that wikipedia article is Firstbeat. I have used Firstbeat's patented estimation technology on my Garmin bike computer since October, and it took a month of riding for score to settle from initial estimate of 48 down to 42 . My score is stable and not impacted by easy rides, to be expected as that is part of the patented estimation process (detecting and throwing out bad data, and only using good data to calculate score).

Hope that helps.

Aria, Fitbit MobileTrack on iOS. Previous: Flex, Force, Surge, Blaze
View best answer in original post

Best Answer

## 6 REPLIES

06-29-2017 06:53
© @adikeenan Start here with Fitbit article on cardio fitness score: http://help.fitbit.com/articles/en_US/Help_article/2096/\#runs

You sound like a well trained athlete, from everything I've read in sports science I would expect your score to be stable. As VO2max is mostly genetic, I wouldn't expect significant $+/-5$ point changes unless you've gone from couch potato to athlete in a 3-6 month period (or lost substantial amount of weight). Also, for well trained athletes increases in score require serious VO2max training and even then some athletes will not see any change in score. These all point to an issue with how the Blaze is estimating your VO2max.

I'm a cyclist and didn't try it on my Blaze, because it requires running. However I have seen reports on Charge 2 forum about the score going down after an easy run. And Fitbit link above states that more accurate scores require running with intensity. Fitbit's estimate wasn't the most accurate in a review that I read at wearable.com (big change in score between review article and VO2max article). Keep in mind this is a new feature, and that data it needs - 10 minute HR and pace on flat ground - is not always the most accurate on Fitbit devices. So if your Blaze is struggling to detect HR or pace accurately, that could also impact your score.

Try a Cooper's test to estimate your VO2max for comparison:
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and for other ways to estimate:

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Hope that helps

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View best answer in original post
Jogger
2 20 . 0

06-29-2017 13:27

If you go on a fast run for 10 minutes, I belleve you'd see an increase in the score. The lower intensity of longer runs seems to throw it off.

Work out...eat... sleep...repeat!
Dave I California

0 O Votes Reply

06-29-2017 18:01
@WavyDavey wrote:
If you go on a fast run for 10 minutes, I believe you'd see an increase in the score. The lower intensity of longer runs seems to throw it off.
@WavyDavey. Without looking at the data of a long run that decreased a cardio score, my first wild guess is that the longer run had enough cardiac drift (rising HR) to artificially skew the score downward. In other words, Fitbit isn't throwing out bad data, it is using all the data (good and bad) to calculate the wrong score. Just a guess.

Aria, Fitbit MobileTrack on iOS. Previous: Flex, Force, Surge, Blaze

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