

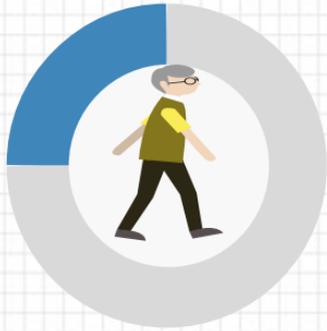
Determining Exercise Intensity

How hard should you be working?

Exercise Intensity means how hard you are working. The benefits you receive from exercise are directly related to the level at which you work. That's why it's important to evaluate your exercise intensity.

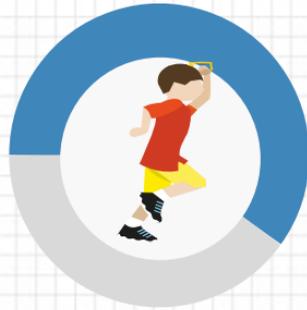


LEVELS OF INTENSITY



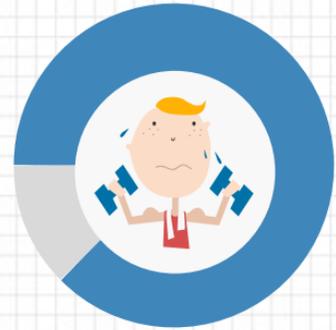
Light Activity

Almost unnoticeable changes to breath and heart rate.



Moderate Activity

Small increases to breath and heart rate



Vigorous Activity

Large increases to breath and heart rate.

Hint

Use the methods below to determine your exercise heart rate.

MEASURING INTENSITY



01 Talk Test

If you are performing light activity you should be able to sing while doing the activity

If you are performing moderate level activity you should be able to carry on a conversation

If you are performing high level or vigorous activity you should feel winded and out of breath.

02 Rate of Perceived Exertion (RPE)

RPE is a scale appropriate for all individuals and subjectively allows individuals to determine their level of intensity. If done well it can correlate to an individual's heart rate.

The suggested level of RPE for moderate intensity exercise is between 11-13

The Borg Category Rating Scale

Least effort

6

7 very, very light

8

9 very light

10

11 fairly light

**ENDURANCE
TRAINING
ZONE**

12

13 somewhat hard

14

15 hard

**STRENGTH
TRAINING
ZONE**

16

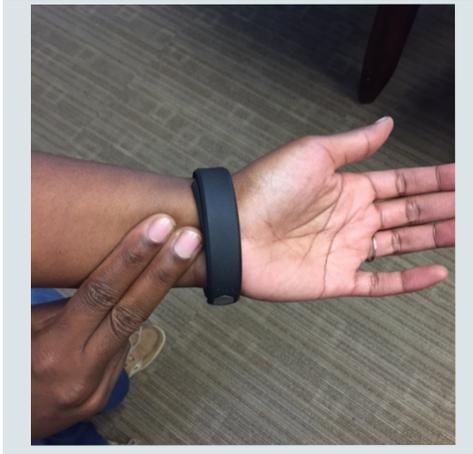
17 very hard

18

19 very, very hard

20

Maximum effort



03 Heart Rate



Calculate your target heart zone. To do so you will need to use the Karvonen formula. We will walk you through the steps.

Before starting you will need to determine your resting heart rate by taking your pulse before you get out of bed in the morning. This can be taken by gently placing your middle and index finger on your wrist or neck. Count your pulse for 10 seconds and multiply by 6.

4 Steps to Calculate Target Heart Rate Zone

Step 1 $220 - \text{your age} = \text{Max Heart Rate (MaxHR)}$

Step 2 $\text{MaxHR} - \text{resting HR} = \text{HR reserve}$

Step 3 $\text{HR Reserve} \times __\% = \text{of HR zone}$

Step 4 $\text{Low end of HR zone} + \text{Resting HR} = \text{Low end of your target training zone}$

$\text{High end of HR zone} + \text{Resting HR} = \text{High end of your target training zone.}$

$\text{HR reserve} \times 40\% = \text{low end of HR zone for moderate intensity exercise.}$

$\text{HR reserve} \times 60\% = \text{high end of HR zone for moderate intensity exercise.}$

$\text{HR reserve} \times >60\% = \text{vigorous exercise intensity}$

Example

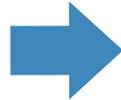


Meet Joe.

Joe is 20 years old.

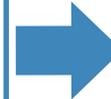
Joe has a resting heart rate of 60 bpm.

Joe wants to workout at a moderate intensity level so he can get the most benefit out of his workout. This is how Joe will calculate how hard he should work.



Joe
calculates his
Exercise
Heart Rate
Zone

1. $220 - 20 = 200$ (MaxHR)
2. $200 - 60 = 140$ HR Reserve
3. $140 \times .40 = 56$
 $140 \times .60 = 84$
4. $56 + 60 = 116$
 $84 + 60 = 144$



Joe feels like his workout started fairly light at an 11 but now he is able to keep it at a somewhat hard pace or a 13 for the rest of his workout.



Joe is able to carry on a conversation with his friend while he exercises but when he tries to sing the lyrics to his favorite song he finds he is unable to.

Precaution should always be taken when beginning and exercise program. Be sure to check with your doctor if you have any concerns.

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