

# INTENSITY

*defined*



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They say that the English language is the hardest to learn. Two words can sound the same but be spelled differently. One word can have several different meanings depending on the context in which it is used. One word that comes to my mind is "intensity". It can be used to describe the flavor of a food item; it can be used to illustrate the heat of the sun; it can express an individual's personality (Philly guy Pat Croce comes to mind); and so forth. In terms of exercise, the word "intensity" is used to explain how hard an individual should work while exercising. Intensity is an often misunderstood and sometimes abused concept. However, the "intensity" of your exercise could be the difference between seeing no change and attaining real success.

In exercise, the term intensity can sometimes drive fear into the minds of avid and potential exercisers. Thoughts of profuse sweating, animal-like grunting, eye-popping movements and complete exhaustion generally emerge. While that may sometimes be the case, understanding intensity is much simpler than that. As previously stated, intensity is nothing more than a measure of how hard an individual should be working while exercising. The importance of understanding intensity as it relates to exercise is that it determines not only how long a particular activity can be maintained, but also how much energy (calories) can be potentially used. Using a car as an analogy, intensity is an indicator of how hard the engine (body) is running - idle, cruise control, revving, or flying. What does this all mean? To the beginner it means that it is not enough to just start exercising. There has to be a certain level of work involved. Getting started is great but there has to be a structured plan or method to prevent plateaus. To the regular exerciser it means that there has to be varying and/or increasing levels of work to continue progress. Intensity is something that can and should be measured or monitored. One of the best ways to express the value of measuring inten-

sity is best described by a favorite saying, "Keep doing what you're doing, and you'll keep getting what you're getting."

No matter what the exercise is, there is a way in which to measure or gauge intensity. One of the absolute best ways to assess exercise intensity is by measuring heart rate. Why? The heart rate is an unbiased measure of how hard the body is working. Working muscles need oxygen rich blood and the harder they work, the more of it they need. Heart rates, which are affected by numerous factors, are unique to each individual, making them valuable in customizing tailored exercise programs. Heart rates can be measured manually by palpating the pulse on either the wrist or the neck. However, a more efficient and easier way is to wear a heart rate monitor. Heart rate monitors come in all sorts of varieties and those that simply measure heart rate are fairly inexpensive. Most work the same way by delivering a constant, readable measure of heart rate by way of a chest strap to a wristwatch. Simple, easy, and no work involved but the exercise itself.

Another way to measure exercise intensity is by what is called perceived exertion. Just as it sounds, it is a subjective measure of how hard the exerciser thinks they are working. They can be self made, such as a standard 1 - 10 scale, with 1 being easy and 10 being the hardest. Or they may be more scientifically structured such as the Borg Scale of Perceived Exertion, which uses a different number scale and has been proven through research to be highly correlated to actual heart rate. Although perceived exertion is a valid measure of intensity, it can be a bit unreliable because the intensity of the activity will be more governed by how the exerciser feels and not how hard their body is actually working.

A third way to assess exercise intensity is the "talk" test. Simply put, if you are able to carry a conversation with little or no shortness of breath, it is safe to say that the intensity is not that high. Not that all exercise has to be done at a high

rate, but it is a very easy method to determine whether to step it up or not. Of course, there are also those who believe sweating to be a measure of intensity. Sweating is the body's way of cooling off, dissipating body heat through water that evaporates off the skin. While it is true that the harder the work the greater potential for increased sweating, it has very little correlation to actual work. Think about that the next time you are stuck on the Schuylkill Expressway with no air conditioning. Did you have to work real hard to get that sweat going?

Although you can use all three of these methods for measuring intensity during all types of exercises, they are generally used when determining how hard to work while performing cardiovascular exercises. While performing strength-training exercises such as machines, free weights, etc., training intensity can also be measured or monitored. Typically in a top-notch sports conditioning program, a measure known as a 1 RM (repetition maximum) is used to determine the correct amount of weight that should be used. A 1 RM is the amount of weight that an individual can lift at one time, no more or no less. Once the 1 RM is determined, this amount is used to set up percentages of weight that should be lifted based on the individual's goal. These percentages dictate the intensity of the lifts, or how much weight should be lifted to achieve the desired goal. Even without determining your 1 RM, varying the weight lifted provides complete control of the desired intensity.

A much simpler way to monitor intensity of strength training exercises is to vary the time between lifts. In my experience, most people spend too much of their gym time between actual work, taking credit for spending three hours there. Again, the goal will determine the length of time that is necessary to rest between sets. Decreasing the

time between sets is also a more effective way to increase not only the efficiency of the work out, but the time as well. Remember, it's not how much time you spend in the gym; it's what you do while you are there. In addition to varying the time between sets, you can alter things like the number of sets per body part or per time frame (i.e. 10 sets in 10 minutes); the number of reps per time frame (i.e. 50 reps in 1 minute); the number of exercises per workout (15 exercises in 20 minutes). The possibilities are endless and the assurance that the intensity is different every time is priceless.

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So that brings up the million-dollar question: How hard am I supposed to work when exercising? Before you even get wrapped up into figuring out percentages, determining 1 RMs and getting into "fat burning zones", the goal should be clearly defined. If there is no goal, then the intensity really does not matter. Meet with a certified fitness professional who can help set you up with parameters based on your current level of fitness and not where you think you should be. Also, understand that as you get going with exercise, you will need to make necessary changes in the intensity of your workouts and a certified fitness professional is best suited to help you with that. Commonsense is one of the best and most foolproof ways to determine your appropriate level of exercise intensity. Would you train like a body builder if your goal were to be slim and toned? Would you walk if you were planning on running a marathon? Would you talk through your workout if you were trying to lose weight? Would you perform wind sprint repeats the very first day you ever exercised? It is still always best to have a proven, concrete method of measuring exercise intensity. However, even with all of the literature and research done on the subject, it can still be very confusing.

Unless you are professionally training for a particular event, no one expects you to go from 0 to 60 in one day, one week or one month. However, a solid exercise program built on measuring and altering intensity of the workouts will serve you far better than going through everything at the same speed. Intensity can and should be manipulated all the time, making some workouts harder than others, but more importantly increasing the efficiency and effectiveness of the workout. After all, wouldn't it be more fun and enjoyable to actually see results than wonder why nothing has changed?



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