



## Misconceptions about Exercise - mental\_floss on YouTube (Ep. 9)

### Misconceptions

<https://youtube.com/watch?v=rEniG2uf35U>

<https://nerdfighteria.info/v/rEniG2uf35U>

Hi, I'm Elliot and this is mental\_floss on YouTube. Today I'm going to talk about some misconceptions about exercise.

\*Mental Floss theme music\*

#### Misconception number one:

Running on a treadmill will result in less knee injury. It's true that treadmills are designed to include padding which softens impacts, running outside can be harder on the knees in that sense, but researchers have found that runners actually use a slightly modified stride when they're running on a treadmill as opposed to running outside. They tend to have a bouncier run on the treadmill, they also might over-stride. These two differences in form actually do affect the knees, so if you start having knee pain, take the day off from running and see a doctor who can recommend how to proceed and watch some reruns of, like, parks and rec or something.

#### Misconception number two:

Replace running shoes every six months. How often you should replace your running shoes depends on your size, running style, running habits and preferred running shoe. Because of that, there is no way to pick a maximum number of months or miles that shoes should be worn for. Many experts believe that the best time to replace your shoes is when the ethylene-vinyl acetate, or shoe lining, starts to wear down. An 18 year long study that started in 1991, found that Europeans tended to wear their running shoes for around 600 miles but the researchers determined that the shoes could still safely be worn even after that point. So for this one, you pretty much just have to decide for yourself how your shoes feel.

#### Misconception number three:

Stretching prevents injury. Studies have actually found that static stretching before exercise does not lower the likelihood of injury. In fact, sprinters who participate in this kind of stretching before running might even have slower speeds. Plus, according to a 2013 study published in the journal of Strength and Conditioning Research, people who stretched before weight lifting actually felt weaker, that stinks. According to Dr. Markovic, a professor of Kinesiology at the University of Zagreb, after static stretching muscle power lowers by around two percent. You should still warm up, but static stretching might not be the way to go.

#### Misconception number 4:

You have to be sweating or you're not working hard. According to Jessica Matthews, a spokesperson for the American Council on Exercise, "Sweat is a biological response that cools your skin and regulates internal body temperature." So sweat is a sign that your body is working to cool itself, but you can burn calories in plenty of ways that don't end with you dripping in sweat.

#### Misconception number 5:

You sweat out toxins. Since I just gave you the definition of sweat, this one should be common sense. You're only losing around one percent of your toxins via sweat glands. Your gastrointestinal tract does most of the detoxing work in your body.

#### Misconception number 6:

Calorie counters on exercise machines are accurate. I don't wanna shock you or anything, but fitness machines don't know anything about you. They don't know your sex, weight, or fitness level and all of those factors affect how many calories you're burning during exercise. So don't take calorie counters on machines too seriously. Some are more accurate than others though. According to one study, treadmills are pretty accurate, especially if you can punch in your weight. Whereas many elliptical machines overestimate calorie count by 42 percent. Bummer!

#### Misconception number 7:

If you do enough sit ups, you'll get a six-pack. According to experts, you can't spot reduced fat. Doing strength training and toning

exercises will help, but in order to see the muscle definition that you want, you'll probably have to incorporate cardio and a good diet into your routine.

#### Misconception number 8:

Cardio burns more calories than weight training. Obviously, this completely depends on you and what workout you've chosen. Some studies have found that typically more calories are burned during cardio workouts, but strength training allows calories to be burned for longer after the workout is over. This is known as Excess Post-exercise Oxygen Consumption, or EPOC. After exercise is over the body's metabolism continues to work hard, resulting in calorie burn, which happens more after weight training.

#### Misconception number 9:

Maximum heart rate equals 220 minus age. Many people think that there's an ideal fat burning zone for their heart rate, which is between 60 to 75 percent of maximum heart rate. So if they stay in that zone while working out, their workout will be the most efficient. But according to the American Council on Exercise, the problem is that there's no perfect formula to determine your maximum heart rate and therefore your fat burning zone. This formula is wrong because it overestimates the heart rates of young people and does the opposite for older people. But if you're obsessed with the zone system, talk to a doctor or trainer to get a more accurate number.

#### Misconception number 10:

No pain, no gain. Actually most exercise experts agree that you should not be in pain while exercising. Discomfort and muscle soreness are fairly normal, but if you're in real pain, you might be risking injury or already injured. I know I sound like a nag, but talk to your doctor if that's the case. Stop trying to lift cars all the time...mom.

Thank you for watching Misconceptions on mental\_floss on YouTube, which is made with the help of all of these wonderful people. If you have a topic for an upcoming Misconceptions episode that you would like to see, please leave it in the comments and we'll check it out. See you next week! Bye!

\*mental\_floss theme music\*