

Starting Strength

Strength vs Endurance: Why Are You Wasting Your Time in the Gym?

by

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When you consult a medical person about exercise, the standard recommendation amounts to a prescription for a certain number of minutes per day or per week. The conventional wisdom equates “exercise” with “cardio” – endurance exercise performed at a low to moderate intensity for a continuous period of time. We call it LSD (long, slow distance). The assumption seems to be that as long as your heart is capable of working at 65% of its assumed maximum capacity, that’s about all you need to do.

The fact is that a properly-designed strength training program constitutes a much better use of the same amount of time a “cardio” workout takes, and provides far more benefits to your quality of life. This is especially true if you’re older. Assuming you are not a heart patient, strength training provides enough cardiovascular work to serve the purpose, and produces an increase in strength that endurance exercise cannot provide. Here’s why:

1. Not doing the things that make you strong has its consequences. Increased strength is produced by activity that requires you to use your muscles to produce force – more force than you normally produce in daily activities, and more force than LSD requires. When you use your muscles in an effective strength program, sugar fuels the activity, and efficient carbohydrate metabolism is necessary for your health. A lack of active carbohydrate metabolism is very closely correlated with the development of Type II Diabetes and other unpleasant things. Type II Diabetes shortens your lifespan, in addition to making your shorter life a lot less fun.

This cannot be emphasized enough: *using your muscles in a way that makes them stronger also improves the way your body handles the sugar that can cause metabolic problems like diabetes.* When the human body is allowed to sit on its ass instead of doing the muscular work that keeps it strong, it is being placed in a situation that its physiology is not designed for. Muscular activity is natural – inactivity is not. Intellectual pursuits notwithstanding, doing the things that keep you strong may well be the most important things you do.

2. The deterioration of strength is a serious problem for older people. The loss of muscle mass is a perfectly natural consequence of not dying, but that doesn’t mean you have to just let it happen. The

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loss of muscle mass means the loss of strength, which means the loss of physical capacity. An old weak person is not nearly as much fun to be around – or as fun *to be* – as an old strong person. As we grow older, one of the primary regrets is that we can't do the things we used to be able to. *Staying strong* solves many of these problems.

Staying strong also prolongs life, which is a good thing if you're strong enough to enjoy it. A 2008 [British Medical Journal meta-analysis](#) showed that strength levels correlated better with longevity than any other parameter. Better than BMI, *and better than cardiorespiratory fitness*. Stronger people live longer. Which is very interesting, considering the fact that we are so often told how important it is to walk/jog/bike and that we are almost never told to do our deadlifts and squats.

And while we're here, know that gaining a little muscular bodyweight while you train is also associated with increased longevity. Several studies have shown that being slightly “overweight” is associated with greater longevity than being of “normal” weight, as identified by the Body Mass Index. This probably has as much to do with the fact that the BMI is a flawed metric as it does with the fact that having more muscle is protective against things that kill you.



3. Being strong also requires you to use your muscles in a way that works your bones. Your skeleton is the system of levers that your muscles operate to interact with your environment. The loads that your muscles move are actually moved by your bones, and they adapt to being loaded the same way your muscles do – they get stronger. For bones, this means denser and harder to break.

Older people are particularly susceptible to falls and the bone fractures associated with them. A pelvic fracture for an older person is essentially a death sentence. People fall when they “lose their balance” – when your body's weight gets in a position so far from your feet that *you lack the strength* to control your position. Adequate strength makes falling less likely. The combination of being strong enough to not fall when you lose your balance and having denser bones if you do fall is much better than Medicare.

4. The process of intentionally getting stronger also improves cardiovascular function. It has been shown in dozens of studies that a strength program rigorous enough to work effectively is also rigorous enough to make you breathe harder and elevate your heart rate. This gets you in better cardiovascular shape even though it's not distance running.

Contrast this with LSD – the “cardio” usually performed conscientiously by everyone concerned about their health. It makes your heart beat faster, it makes you breathe harder, and that's about it. LSD is necessarily performed at a low intensity, and it cannot make you stronger because it's not “heavy” enough. It doesn't work your back or your arms, and it uses a short range of motion for the muscles of the hips and legs. And the only load on your bones is that of your own bodyweight, which was already there anyway.

So I'm suggesting that it's better to spend your time doing a correctly designed program of full range-of-motion barbell exercises that use progressively heavier resistance than doing “cardio.” I know what

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your doctor told you, and I'm suggesting that you think about it a little more before you decide to just keep putting one foot in front of the other for a couple of miles, for the rest of your non-strong life.

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