The Truth About the Starting Strength Method

by

Mark Rippetoe

All of the arguments about the presumed reliability of science are ridiculous and easily shown to be false. Science is no more “self-correcting” than accounting. Peer review is more commonly known as “proofreading” by the rest of the publishing industry and is not even theoretically a means of ensuring accuracy or correctness. And scientists are observably less trustworthy than nearly anyone except lawyers, politicians, and used car salesmen; at least prostitutes are honest about their pursuit of “grants” and “funding.”

These days, the scientific process is mainly honored in the breach by professional, credentialed scientists. And we have a word for testable, reliable science. That word is “engineering.”

The blogger Vox Day in his recent column makes an excellent point about published “science” and the peer-review process that generates it. In the field of the “exercise sciences” in particular we find an astonishing paucity of truly useful information with which to improve human performance. Instead, we rely on what is essentially an “engineering” approach – the application of physiology (the general-kind, not the exercise-kind), arithmetic, logic, analysis, and experience tempered by observation and constant adjustment for process optimization to the problem of how to improve human performance.

The application of these engineering principles to the problem of human performance has yielded the Starting Strength Method, which is testable, reliable science.

To wit: unless you are already a strength specialist – and you’re probably not unless you have spent many years preparing for powerlifting competition, and are therefore not the subject of our concern here – you can improve your performance by getting stronger, 100% of the time.

The tested, reliable truth is that, when performed correctly, there is no more effective or more efficient approach to maximizing human performance in existence than the Starting Strength Method. This is true every time, without exception, because strength – the ability to produce force against the external resistances encountered in the environment – is the most fundamental adaptation necessary for increased performance.

The Starting Strength Method uses the basics of biology and arithmetic, refined through logic and analysis over decades of testing and millions of hours of practical refinement to produce the most effective and efficient strength program in existence. The Starting Strength Method is essentially strength engineering.
The Method Condensed

The Starting Strength Method consists of two separate ideas: the exercises and how they are performed, and the programming of those exercises. The first is the use of 5 major multi-joint barbell exercises, performed in a way that maximizes their impact on muscle mass, range of motion, and strength, and with no other exercise variation, since no other exercises are necessary, especially at first.

The second is that the primary manipulated programming variable is a persistent incremental increase in loading (not exercise selection), moving the exercise loads up as efficiently and quickly as possible while maintaining perfect technique. The frequency and magnitude of the increases are dependent upon the level of training advancement, which is determined by the length of time having been spent getting incrementally stronger.

Strength, as I have observed many times for many years now, is the basis of human performance, because it is the basis of physical interaction with the environment. Every time you move your feet or your hands in contact with any other physical object – be it the surface of the earth, a sports implement like a bat or a racquet or a javelin, or another human being like an opponent, a lover, or a friend in trouble – you're applying force against your external environment. Applying less force, if necessary, is easy, and is the natural consequence of practice and experience.

But applying more force is impossible if the ability to produce that higher amount of force is beyond your current physical capacity. Being stronger than may seem superficially necessary is always an advantage, and will always eventually contribute to a more successful interaction with your external environment – your performance. Always.

Performance and Strength

This cannot be overemphasized: whether your performance is displayed on the football field or the tennis court, or by staying out of the doctor’s office or the rest home, your ability to produce force against the obstacles you encounter in your environment is the key to the most efficient interaction with that environment. Whether you run, ride a bike, work in your garden, work hard at your job, play varsity sports, play recreational sports, play with the kids, or make a sport out of your retirement, you get as much out of the preparation for these activities as you put into them.

If you expect these activities to prepare you to do them all by themselves, with no outside help from any other preparatory work, you're not only leaving a lot on the table – you're trusting that you'll never encounter a version of that activity that might demand more from you than you've encountered before. Because when you do – and if you're serious, you will – you won't be prepared.

Increased strength makes you faster, tougher, more powerful, more agile, more coordinated, more
balanced, and more injury-proof. Increased strength improves your endurance, your body composition, your bone density, and your health – and it does so irrespective of your age. If you're not stronger, it's time to get that way.

You're not as strong as you could be if you have never engaged in a program of barbell strength training that requires a regular incremental increase in the weight. Only an increasingly heavy barbell exercise that uses lots of muscles to operate lots of joints in normal human movement patterns while balancing both the load and the body, and performed as frequently as is necessary to make the weight go up, can directly challenge the ability to produce increasing amounts of force in the context of total human physical function. If your exercises do not enable you to continually lift heavier weights, then your exercises are not improving your strength.

Engineered Equal?

This means that kettlebells, kickboxing, playing with the dumbbells, Pilates, yoga, bicycling, jogging, running, swimming, shuffleboard, gardening, balancing on colorful balls while waving chrome weights in the air, treadmilling, elliptical machining, stair-climbing, rock climbing, wood chopping, loading hay on a trailer, snow shoveling, air-squatting, push-upping, chin-upping, grave digging, or stealing millions of dollars of gold bullion from the floor of a bank behind enemy lines is not strength training. It may be hard, you may get tired doing it, and it may even make you sore, but it's not strength training because it cannot make you stronger. Some of these things may require strength, but doing them cannot possibly develop strength since 1.) none of them are limited by your absolute strength, and 2.) they do not require constantly increasing force production. But all of them benefit from increased strength developed elsewhere.

The Starting Strength Method is strength training, and since strength benefits everything else, the Starting Strength Method improves everything else that you can do physically – including every item in this list.

The Starting Strength Method first identifies your current strength level, while at the same time familiarizing you with the movement patterns used in the program. You learn to squat correctly as the weight on the barbell increases, and your current strength level is identified as the heaviest weight you can perform with absolutely correct technique for a set of 5 reps – sets of 5 reps being the magic number for various reasons discussed in great detail elsewhere.

Then the training begins: the next time you squat, the weight goes up a little, the meaning of “little” depending on who you are. It might be 2.5 pounds for an older, more frail person, the starting weight having been 15 pounds (we have very light barbells). Or it might be 20 pounds for an 18-year-old, talented but previously-untrained 185-pound freshman scholarship football player at a D1 university, for whom the starting weight might have been 225. Doesn't matter who you are, the process is the same. And the other exercises used in the Starting Strength Method – the standing overhead press, the deadlift, the bench press, and for younger people the power clean – are approached the same way. The weight goes up in appropriate increments every time you train until this stops working several months in the future.
Exercises like leg extensions on a machine or anything done on only one leg, which cannot be increased in this incremental fashion for any length of time and which do not involve normal human movement patterns, are not used in the program. They train muscle mass that is already being worked in the primary exercises, they are just not hard enough, and are therefore a waste of time. (You know that hard things are more productive than easy things, right? You know this because you are an adult, and you have paid attention.)

The Results of Starting Strength

During the several months of regularly increasing the weight on the bar, amazing things have happened. The older person is now squatting 65 pounds instead of 15, is no longer nearly as frail, and is much less likely to fall than several months ago because squatting also involves not falling down as strength increases. The football player is now squatting 455, and is a far more formidable player to try to tackle. The same process – the Starting Strength Method – yielded the same dramatic and incredibly significant improvement in both people’s performance.

After the first few months, results will slow using this simple go-up-a-little-every-workout approach. This is the principle of Diminishing Returns in action, the natural result of the fact that all productive processes eventually become harder to sustain with the same level of input. Once you’re strong, it’s harder to get even stronger – it can be done, but the process becomes more complicated and continued progress requires more effort. At this point, the Starting Strength Method adjusts the approach to progress by going up in weight every week instead of every workout. For more advanced lifters who have been training long enough to get very strong, the process becomes even more complicated, with progress occurring perhaps monthly instead of weekly or workout-to-workout.

But not at first. For people who are just starting, progress can be made every workout. And since it can be made that frequently, it should be made that frequently. Anything else is inefficient. Time is money, and strength is opportunity, for both the older person trying to maintain quality of life and the freshman football player trying to keep a scholarship. Something is always breathing down your neck, so efficiency is important.

Other programs can make you stronger too. But why would it be in the interest of an older person to forego the benefits of squatting – the improvements in strength, balance, coordination, bone density, and confidence in your ability to function more effectively as a physical human being – in favor of a less-aggressive program that will never result in the same adaptation, or which may take several years to obtain anywhere close to the same results? Why would it be in the interest of an 18-year-old D1 player to not squat 455, or to wait until his senior year to do it, when a kid of this genetic endowment can get this strong in 5 months if he trains correctly?

There is no logical reason to be intentionally weaker than you have to be. There is no rational argument for taking longer than is necessary to get much stronger. Stronger makes everything better, and all aspects of human performance are improved with increasing strength. The Starting Strength Method produces the fastest results that are possible to obtain, because the program is specifically designed to do precisely that. It has been engineered – tested, refined, and adjusted – for the specific
applications encountered all across the broad range of human demographics. No other program in existence works as effectively and as efficiently, every time it is correctly applied, without exception.

And it’s time we said so.