

## *Starting Strength*

It is May 15, and you decide that this year you are going to get a suntan – a glorious, beautiful, tropical suntan. So you decide to go out in the back yard (to spare the neighbors and innocent passers-by) to lay out at lunchtime and catch a ray or two. You lie on your back for 15 minutes and flip over to lie on your belly for 15 minutes. Then you get up, come in and eat lunch, and go back to work. That night, your skin is a little pink, so the next day you just eat lunch, but the following day you're back outside for your 15 minutes per side sunbath. You are faithful to your schedule, spending 30 minutes outside every day that week, because that's the kind of disciplined, determined person you are. At the end of the week, you have turned a more pleasant shade of brown, and, heartened by your results, resolve to maintain your schedule for the rest of the month. So, here is the critical question: what color is your skin at the end of the month?

It is exactly the same color as it was at the end of the first week. Why would it be any darker? Your skin adapts to the stress of the sun exposure by becoming dark enough to prevent itself from burning again, and it adapts to the stress that burned it. Your skin does not “know” that you want it to get darker; it only “knows” what the sun tells it, and the sun only talked to it for 15 minutes. It can't get any darker than the 15 minutes makes it get, because the 15 minutes is what it is adapting to. If you just got darker every time you were exposed to the sun, we'd all be really, really dark, especially those of us who live in a sunny area, since we all get out of the car and walk into the house or work several times a day. The skin does not adapt to total accumulated exposure, but to the longest exposure. If you want to get darker, you have to stay out longer, in order to give the skin more sun exposure than it has already adapted to.

Exercise is the same thing – a stress imposed on the body that it can adapt to, but only if the exercise is designed properly. Lots and lots of people come in to the gym and bench 225 x 5 x 3 every Monday and Friday for years, never even attempting to increase the weight, sets, reps, speed, or pace between sets. Some don't care, but some are genuinely puzzled that their bench doesn't go up, even though they have not asked it to. Your bench strength doesn't adapt to the total number of times you've been to the gym to bench, or your sincerest hope that it will get stronger. It adapts to the stress imposed on it by the work done with the barbell. Furthermore, it adapts to *exactly* the kind of stress imposed on it. If you do sets of 20, you get good at doing 20s. If you do heavy singles, you get better at doing those. But singles and 20s are very different, and you don't get better at doing one by practicing the other. The muscles and nervous system function differently when they do these two things, and they require two different sets of skills and abilities, and thus cause the body to adapt differently. The adaptation occurs in response to the stress, and *specifically* to that stress, because the stress is what causes the adaptation. This is why calluses form on the hand where the bar rubs, and not on the other parts of the hand, or on the back of the hand, or on the face. It can obviously be no other way.

An awareness of this central organizing principle of exercise physiology is essential to program design. If a strength program is not designed to get your trainees stronger, you don't