One of the most often neglected aspects of an endurance athletes training program is strength training. However, this time of year is an excellent time to take advantage decreased sunlight and inclement weather and use it as an opportunity to increase your time in the gym. Strength training carries a wealth of benefits with it for the general population as well as athletes of all kinds. A well-developed weight training program will help you increase bone mineral density, improve speed, strength, efficiency and will most importantly help you prevent injury. Ultimately it is a tool for making you faster. This is also an opportunity for endurance athletes to work outside of their “box” and train muscles, tendons and ligaments to move laterally and in multiple planes versus moving in one direction.

Strength training work should be incorporated into your training plan year round, especially if you are a masters or female athlete. That said, strength training can and should be implemented functionally in a sport-specific manner as well and not just kept at bay for rainy days in the gym. Sport specific strength training application would refer to such examples as hill repeats on the bike and running, trail running, big gear efforts or stomps, using gear in the pool, etc. However, you can use your winter season to get back to the fundamentals and hit the weights as a great way to supplement your base training and better your performance outcomes in the upcoming season.

Research has shown that as little as one to two sessions per week of one to two exercises per major muscle group is sufficient to maintain and maybe even make marginal improvements; however, in order to really achieve performance enhancing results you need to have a well thought out, periodized plan, that has you doing some sort of strength training three times per week.

There are many different schools of thought regarding what type of strength training is the best for endurance athletes, so let’s keep things simple and identify a few key principles, break those into different types of strength training, and then you can use that information to begin putting together a program for yourself or talking with your coach about how to best implement a strength component to your training.

A few key principles of strength training are the same that apply to your endurance training as well. The training needs to have a specific purpose, frequency needs to be consistent, intensity needs to be high enough to inflict an adaptive response, and your training must be progressive to see continued progress.

Strength specific gains are primarily going to be seen from exercises that incorporate high load multi-joint movements like the squat or deadlift falling into the 1-6 repetition range. Now, that doesn’t mean that you step into the gym and begin maxing out in all compound exercises. You should begin with a sufficient warm up and work into a strength oriented main set. You may also find great benefit from
functional strength training, which would include multi-planar movements or might incorporate unstable surfaces such as a bosu ball, medicine ball or stability ball. Another strength training dynamic that you may decide to target would be power. You will find that Olympic lifts such as the snatch or single arm dumbbell snatch will help you develop tremendous power that can easily translate to improved endurance performance. Additionally, plyometric training has been shown to improve the performance of endurance athletes as well and is most often incorporated into a strength training program with a focus on leg development via jumping exercises such as box jumps, lateral jumps, depth jumps and so on.

Finally, in my opinion, there is a tremendous benefit to be had from bodyweight strength training that will help develop tremendous functional strength and body awareness. These exercises are often the easiest to do and can be completed anywhere, but are usually overlooked. Some examples are single leg squats, push ups, pull-ups, body weight abdominal exercises, and planks. These dynamic total body exercises can have quite an impact and are great for incorporating year round as well.

So regardless of your goals this season use this time of year to begin developing an action plan for incorporating strength training into your regular regimen. By investing just a little bit of time in improving your strength you will be able to cash in on some noticeable gains this season as a result. What are you waiting for, Rocky, find some iron and get pumping!

Coach Daniel holds a masters degree in exercise science, USA Cycling coaching license, is a Clinical Exercise Specialist (CES) through the American College of Sports Medicine, and is a Certified Personal Trainer through the American Council on Exercise. He recently attended the USAT Level I coaching clinic in Raleigh, NC. He is a triathlon coach with One Step Beyond.