

## **LIFE IN THE GYM FOR THE CYCLIST**

By Kenneth Lundgren

As cycling enthusiasts, when we train hard and race, by the end of the year we're walking evidence of evolution: our legs have slimmed down, the muscles becoming much more dense and efficient. So, at the beginning of next season's training, it's essential to get back in the gym and rebuild the muscles that have atrophied during the season. If gym work is never completed, imagine what kind of power you would lose over a 4-year racing period...

Most cyclists start their gym work too hard, too quick, not thinking about how lifting weights is affecting their performance on the bike or how lifting in an unstructured manner can lead to minimal success and improvement – especially when looking long-term to the middle of the upcoming season.

If the athlete is looking to gain 100% fitness by May or be peaking for the summer, he/she should look to start steady gym work in November, starting with light weight or even no weight, concentrating on high reps and perfect form. I cannot stress this enough: it is not about the weight on the bar but HOW WELL you complete the movement.

Just as in following a periodized training program on the bike, the athlete should again follow a structured plan that will help them get the most out of the gym, a plan that incorporates progressive workloads and intensities. Lifting programs are slightly different for each athlete: of course the sprinter will have more Max Strength workouts while the road racer or time trialist will focus more on Transition and Maintenance workouts. You have to ask yourself what your weaknesses are, what your goals are for the year. Then you design a plan in the gym that will ultimately help you attain them on the bike.

Always, always lift for your goals and energy demands.

Remember that we are not lifting weights to improve max power in the gym but to improve leg strength on the bike. So pick exercises that will help you develop a powerful pedal stroke. Compound movements should be the meat and potatoes of your workouts. Learn to love Squats, Leg Presses, and Lunges. Other movements, such as Leg Extensions, Leg Curls, and others, are important because they strengthen the ligaments of the knee and strengthen the hamstrings, but they should not be your focus. Complete these secondary exercises during the second half of the workout, most often supersetted.

Most athletes also like to build to heavy weights and lower reps much too early, thinking they're developing power power power. But when is the last time you won a sprint with six pedal strokes or climbed a steep hill in five? Walter Payton, arguably the NFL's greatest running back, opted to never lift weights and instead completed plyometrics and body weight exercises, applying the same principles.

A study by Peak Performance in the United Kingdom showed that 15-20 reps, for the most part, is the ideal range, helping develop both slow and fast-twitch muscles. During a 10-week

program, the athlete's V02 max did not increase, but their time-to-exhaustion when riding at max effort increased by 13%. During Tempo sessions, time-to-exhaustion increased by 33%. The best piece of data, in my opinion, is that the rider's lactate threshold power increased by 12%, a staggering number. The last time I checked, increasing lactate threshold and rate-to-exhaustion are two things on our Cycling Priority Lists!

Going to the gym is not only about building leg strength but also about strengthening the core and lower back. A strong core is essential for all riders: sprinters, climbers, time-trialists, crit riders, road racers, triathletes. The principle is simple: stronger core = more power to the pavement. Bottom line.

Early winter is the ideal time to crank up core work, which should be completed 2-3 times per week, even on its own sometimes – core work is that important. A great way to hit the core is by using a Swiss Ball. I would certainly recommend incorporating the ball into your core routine as you progress, not only to hit the muscles differently – especially the hard-to-hit stabilizers – but to also break up the workouts...

In the early part of the long Foundation training block, most riders want to start doing their endurance rides while going all-out in the gym. Riders associate winters with LSD (Long Slow Distance) and they feel nothing can get in the way, so they lift and complete heavy mileage. I feel this is a mistake, as it's impossible to develop true endurance and leg strength at the same time. When you simultaneously try to do both, you get nowhere.

When we resume "training" again after a scheduled break in the fall, it's important to really focus on leg strength, cutting back on ride volume. This means focusing on time spent in the gym, getting acclimated to the exercises and perfecting all the movements. With ride volume down, we also have more time to focus on core workouts, which will better prepare us for the longer rides to come...

On the bike, instead of focusing on volume, the rider should look to improve their pedal stroke economy. Learning a perfect pedaling action is muscular and neurological and takes time to develop. Plus, as the rider is improving their leg strength in the gym, now is the perfect time to embark on pure aerobic pedaling drills, teaching the body to use all of the muscles – and developing muscles – in the leg more efficiently.

Lifting weights can have that snowball effect: once gains are made, they continue. Once the legs are acclimated to the gym work, during the final third of the lifting schedule, then the endurance work can begin, gradually upping the intensity and duration – with stronger legs and a developed core, the athlete should be well prepared to complete endurance-based training. If the athlete first focuses on leg strength and pedaling efficiency, when the athlete appropriately starts their endurance phase of training, their body will be better prepared and will adapt more effectively.

Some coaches are against lifting year-round, but I feel that if a rider can juggle his riding and lifting properly, there is no reason NOT to lift all year. In fact, two of the strongest riders I know lift weights all year. Lifting year-round is especially important if the athlete has an injury, if

they're over 35, or if they're still relatively new to the sport. Other benefits of lifting weights include having a higher metabolism and maintaining leg muscle balance.

A tip on diet during these winter months: include more protein with your meals. Try to include some protein into all of your meals as this nutrient helps develop muscle and also fills us more quickly, keeping those unwanted winter pounds away... Eating meals rich in protein helps us lose weight because they trigger a hormone that stops hunger pangs. The hormone is called PYY. It reduces food consumption by sending signals to the brain that indicates fullness. The best protein? Soy, lean meat, fish.

We should also consume a healthy amount of carbs, too. If carbs are avoided before the workout, protein will not be as effectively used by the muscle cells. So always try to mix carbs and protein with pre-workout meals, as well as post-workout meals. Digesting carbs replenishes muscle glycogen while also elevating our insulin levels, which in turn helps protein building.

Most athletes shy away from the fats, but healthy fats should not be avoided. If your diet is super low-fat, your testosterone levels will be lower, and then the muscle that's broken down will have trouble rebuilding and getting stronger – and this time of the year is about building muscle. Additionally, healthy fats are an excellent source of energy...

In closing, if a rider follows a well-structured lifting program, they can improve leg strength by 30% and, along with steady endurance work, create a wicked strong platform from which to launch their advanced stages of Foundation training...

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