Isolated Leg Training

Isolated leg training (ILTs), or one-legged riding, is an excellent way to improve pedaling mechanics and build leg strength. The following guidelines provide 2 ILT training modalities, which will isolate and improve these aspects of cycling fitness.

Neuromuscular Improvements

Neuromuscular adaptation to pedaling is often overlooked, but an essential part of cycling training. By improving it, you will become a more efficient cyclist, thereby saving energy in the long haul.

By performing ILTs at higher cadences and lower resistances, you will train this neuromuscular aspect of pedaling.

To perform these ILTs properly, choose your lowest gear—essentially there should be little to no resistance when pedaling. Unclip one foot, either left or right, ensuring you are properly balanced on the bicycle. Pedal with the clipped in foot at 80 rpm—no more, no less.

By performing these exercises with no resistance you're ensuring that you do not have enough momentum for the pedal to just fly over the top of the stroke. By performing these exercises at 80 rpm, you are ensuring that you must actively engage and disengage appropriate muscles on the downward and upward portions of the pedal stroke.

A helpful to tip is to try to imagine your clipped-in foot "gliding" over the top of the pedal stroke. Try to think of creating smooth circles and pedaling with perfect form with your clipped-in foot.

Perform these exercises for each leg for no more than 3 minutes. You can do multiple sets in a training session.

Many cyclists find these exercises extremely difficult when first starting. This is because many of us never train ourselves to pedal correctly. In addition, many of us never train our hip flexors, so they may be weak, The good news is that these exercises have a steep learning curve, so within one session you will see a marked improvement. Also, you may well feel more efficient at pedaling your bicycle within the same riding session, once you clipped both feet back into your pedals.

Strength Improvements

The need to improve strength in your pedal strokes is obvious—more powerful pedal strokes will mean faster accelerations and sustained efforts on the bike.

By performing ILTs at lower cadences and higher resistances, you will train this strength aspect of pedaling.

To perform these ILTs properly, choose a large gear—essentially there should be great enough resistance when pedaling to put great strain on your leg, but not enough strain that will cause you to have to pull the pedal over the top. Unclip one foot, either left or right, ensuring you are properly balanced on the bicycle. Pedal with the clipped-in foot at 50-60 rpm—no more, no less.

By performing these exercises with large resistance, you ensuring that you can create enough momentum to "carry the pedal over the top"—meaning, you want to push down hard enough on the down stroke to allow the pedal to float over the top of the stroke. It is important that you are not pulling the pedal over the top, as this may cause "pedal breaking" on the subsequent down stroke. By performing these exercises at 50-60 rpm, you are ensuring that you have enough resistance to give you legs a solid strength workout.

A helpful tip is to put as much weight and force as possible on the down stroke, while balancing your bike, causing a "whoomp" at the bottom of the stroke. Do not worry about pedal form in this exercise, as the focus is the forceful downward stroke to build strength.

Perform these exercises for each leg for no more than 3 minutes. You can do multiple sets in a training session.

Many cyclists find these exercises much easier, and even more rewarding, than the neuromuscular version of ILTs. This is due to the fact that many of us are used to "mashing" big gears when we ride. These exercises, when performed properly, will essentially replace mashing with concentrate, efficient, powerful pedal strokes.

Conclusion

ILTs are an effective way to improve pedaling mechanics and build leg strength. By performing ILTs in the 2 modalities described above—lower resistance, high cadence and high resistance, low cadence, cyclist's can hone in and selectively improve to aspects of their cycling fitness.

Performing these ILT exercises properly during your early season training, and sporadically throughout the entire training year, cyclists will reap the benefits of improved pedaling throughout the season.