



Core Strength Exercises and Weight Training

Strength Training Schedule

Monday*	Tuesday	Wednesday	Thursday*	Friday	Saturday	Sunday
Strength: Core	Strength: Core	Strength: Core				
Bicycle maneuver	Bicycle maneuver	Bicycle maneuver				
Sit-ups	Sit-ups	Sit-ups	Sit-ups	Sit-ups		
Pushups	Pushups	Pushups	Pushups	Pushups		
Chin-ups		Chin-ups	Chin-ups			
Dips		Dips	Dips			
Weight Training		Weight Training	Weight Training	Weight Training**		

*If you attend the Bodyrich classes on either Monday or Thursday, your program may vary from these exercises.

**Ages 15 and older

Core Strength Exercises

Push-ups

Push-ups are for building the shoulders, chest, and arms. They will improve core body strength and stamina for all facets of cycling.

Minimum of 20 in multiple sets

Maximum of two sets of 50

- Elbows fully extended
 - forefoot or toes on floor
 - legs, hips, and back straight
 - tester places a coffee cup below chest of the subject
 - contact with coffee cup
 - shoulders the same height of elbow



Option: Push-ups – clap hands, 3 – 5 repetitions; one to multiple sets.

- Elbows fully extended
 - forefoot or toes on floor
 - legs, hips, and back straight
 - Quick extension, clap hands
 - shoulders the same height of elbow





Core Strength Exercises and Weight Training

Sit-ups

The sit-up is a strength training exercise. To perform it, a person lies down on the floor or sit-up bench with their knees bent at a 90 degree angle; they then sit up without moving their knees. The hands are placed behind the head or neck. It is intended to work the abdominal muscles, but it also utilizes the hip flexors and lower back.

Bicycle Maneuver

San Diego State University/ACE Abdominal Study indicated the Bicycle Maneuver is the most effective exercise for strengthening the rectus abdominus. The same study concluded that the Bicycle Maneuver was the second most effective exercise for strengthening the obliques.

- Lie flat on the floor with your lower back pressed to the ground.
- Put your hands behind your head (don't pull on the head).
- Bring your knees up to about a forty-five degree angle and slowly go through the bicycle pedal motion.
- Touch your right elbow to your left knee, and then left elbow to right knee. Keep even relaxed breathing throughout.
- Alternate opposite elbow to opposite knee in a slow and controlled manner to muscle fatigue.
- 15 – 50 repetitions.

Note: Intensity Booster: Full extension of the legs will increase intensity, as will keeping the motion very slow and deliberate. Keep the knees partially bent throughout the movement to decrease intensity.

Chin-ups

- ▼ Mount the bar with the back of your hands facing you and with your arms fully extended in a “dead” hang.
- ▼ Do not swing, kick, or bicycle legs during upward movement.
- ▼ Raise your body until your jaw line is parallel to the ground and above the bar.
- ▼ Return to a ‘dead hang’ position to complete each repetition.
- ▼ Execute each repetition.

Minimum seven, maximum 20

Until you are able to perform one pull-up under your own power, you may use the help of an assistant to boost you upwards.

If you are able to perform pull-ups under your own power, you should strive toward seven in one set. After reaching seven, you may rest three minutes and restart until the target number is met. For example, if the plan indicates ten pull-ups and you are only able to perform three, then wait three minutes before trying again. If you are unable to complete the total of ten by the next set, rest another three minutes, and then start again. Continue this process until the prescribed total of ten pull-ups is completed.



Core Strength Exercises and Weight Training

Dips

Use a set of dip bars and position yourself on them with your knees bent and your lower legs crossed. Slowly lower your torso down to where your chest nearly touches the front of the dip bar and then return to the start position and repeat until failure – strive toward seven in one set. After reaching seven, you may rest three minutes and restart until the target number is met. For example, if the plan indicates ten pull-ups and you are only able to perform three, then wait three minutes before trying again. If you are unable to complete the total of ten by the next set, rest another three minutes, and then start again. Continue this process until the prescribed total reached.

Minimum seven, maximum 20 (up to two sets, 40 in total)





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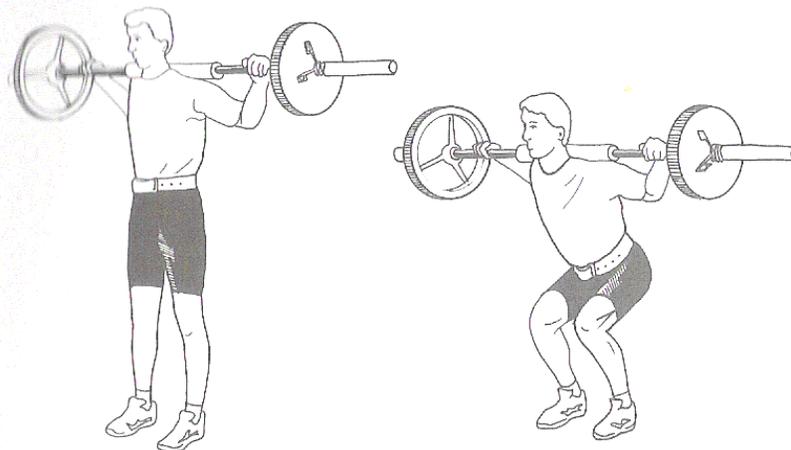
Weight Training

Squat

The cycling pedal stroke is accomplished through a combination of hip and knee extensions. The USA Cycling Coaching Association declares that the squat is the most effective type of resistance training to improve strength and power of hip and knee extension. Consequently, the squat is the best exercise for improving force delivery to the pedals.

Squats take a lot of energy, attention to detail, and are not “fun”, for the most part. As a result, most cyclists CAN squat, but they simply do not WANT to squat. Cyclists will select leg extension weight training such as the Leg Press as a substitute for squats. However, research published by the Mayo Clinic indicates that leg extension weight training results in more stress to parts of the knee than squats. If for some reason an athlete cannot squat, the correct alternatives are the lunge or step-up exercise.

Cyclists have exceptional strength in the quadriceps and glutes. This strength can lead to boldness and the athlete may squat too much weight, too early, and risk injury. To avoid this risk, use only your bodyweight during the first few workouts to learn the proper depth, balance, and posture. Progressively increase the weight to 1 ½ your bodyweight by the end of the Transition Period.



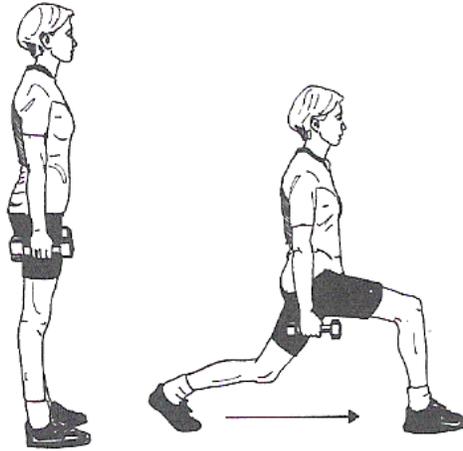
Take great care to protect the back and knees. Many athletes squat with a weightlifting belt. The security of a belt is largely psychological, brought on by a false sense of injury prevention. The key to proper squatting is to rigidly align the torso and hold a neutral spine position. Without the use of the belt, the body relies on core muscles to a greater extent, effectively increasing core strength over time.

1. Stand with the feet pedal-width apart, about 10 inches, center-to-center.
2. Keep the head up and the back straight.
3. Squat until the upper thighs are just short of parallel to the floor – about the same knee bend as at the top of the pedal stroke.
4. Point the knees straight ahead, maintaining their position over the feet at all times.
5. Return to the start position.
6. Eight to 12 repetitions.



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Lunge



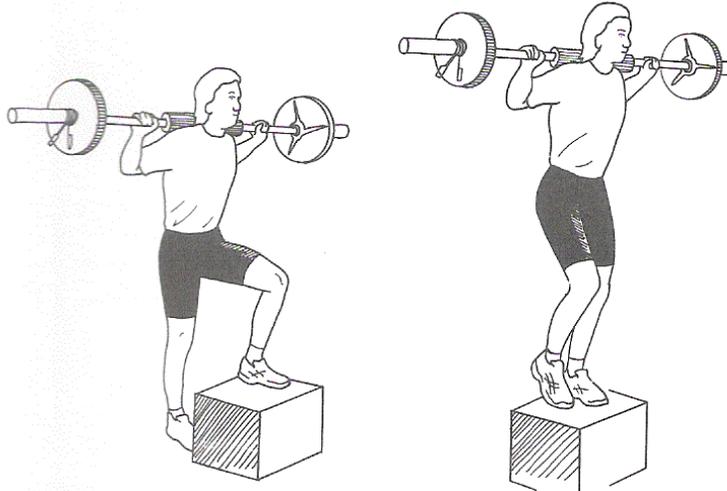
The lunge improves delivery to the pedals. It is an alternative to the squat exercise. Use light weight dumbbells or use an Exertube band stretched from your arms under the forward foot.

1. Stand with your feet shoulder-width apart, torso erect, arms straight down, head up, and eyes straight forward.
2. With a firm grip on the dumbbells, step forward, and sink down.
3. Bring the opposite leg forward and return to the original position.
4. Step forward with the opposite leg and sink down. Adjust the depth of your knee flexion to match pedaling.
5. Repeat the exercise 10 to 15 times with each leg.



Core Strength Exercises and Weight Training

Step Up



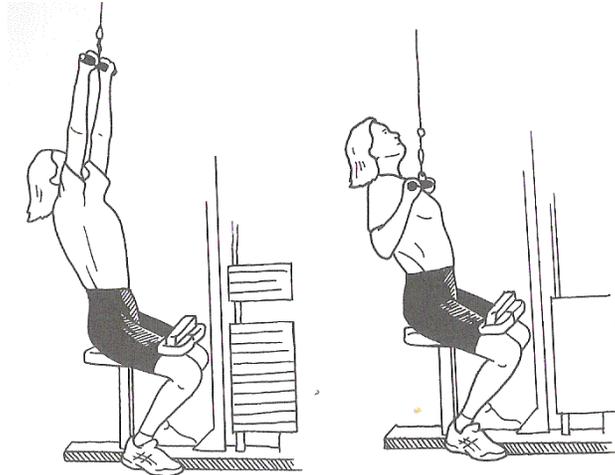
The step-up improves delivery to the pedals. The step-up closely mimics the movement of pedaling. The platform height should be equal to twice the length of your cranks.

1. Use either a barbell on the shoulders or dumbbells in the hands.
2. Place the left foot fully on a sturdy platform with the toes pointing straight ahead.
3. With the back straight and the head erect, step up with the right foot, touching the top of the platform, and immediately return to the start position.
4. Eight to 12 repetitions with the right leg.
5. Complete all right leg repetitions and then repeat the exercise by stepping up with the left leg.
6. Eight to 12 repetitions with the left leg.
7. Return to the start position.



Core Strength Exercises and Weight Training

Latissimus Dorsi Pull-down



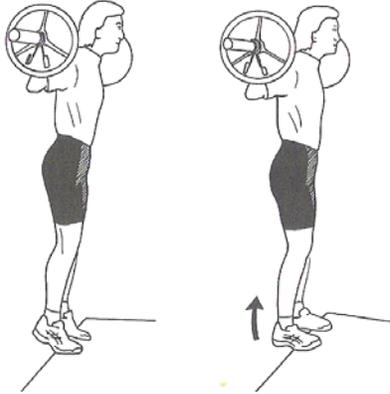
The lat pull-down strengthens and stabilizes the shoulders.

1. Grasp a straight bar with the arms fully extended and the hands placed about as wide as they would be on the handlebars.
2. Pull the bar toward the upper chest (not behind the head).
3. Minimize both movement at the waist and rocking back and forth to start the weight moving. Keep your body still, using the back muscles to stabilize the position.
4. Return to the start position.
5. 15 to 20 repetitions, 2 or 3 sets



Core Strength Exercises and Weight Training

Heel Raise



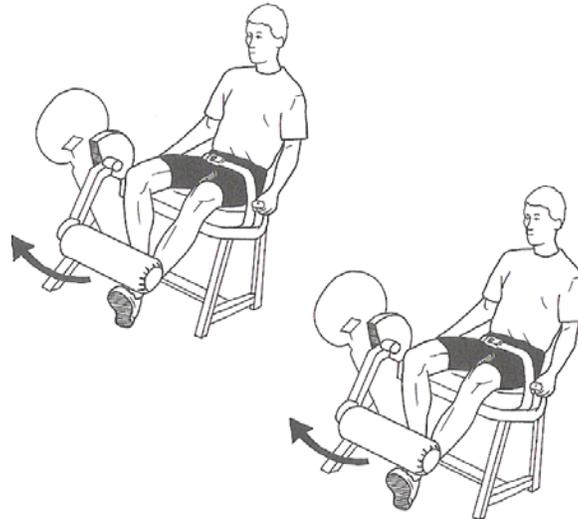
This is a “personal weakness” exercise for athletes who experience calf and Achilles tendon problems. The heel raise may reduce susceptibility to such injuries. Use very light weights. You should progress slowly with this exercise.

1. Stand with the balls of the feet on a 1- to 2-inch riser, with the heels on the floor.
2. The feet are parallel and pedal-width apart.
3. With straight knees, rise up onto the toes.
4. Return to the start position.
5. 15 to 20 repetitions, 1 or 2 sets



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Knee Extension



If you are plagued by a kneecap tracking injury, this exercise may help by improving balance between the lateral and medial quadriceps.

1. Start with the knee fully extended and the toes pointing slightly to the outside. Work one leg at a time.
2. Lower the ankle pad only about 8 inches. Do not go all the way down, as this may increase internal knee pressure; thereby making the kneecap sore.
3. Return to the start position.
4. 15 to 20 repetitions, 1 or 2 sets