



S E A T T L E
PERFORMANCE
M E D I C I N E

Tips for cycling training on a Precor EFX®

To get out of the winter weather and maintain your fitness for the cycling season, the EFX provides an alternative to riding in the rain, indoor cycling or spinning classes.

A new training option for cyclists, the Precor EFX Elliptical Fitness Crosstrainer™, builds aerobic fitness along with cycling specific strength.

Here are a few tips for cross training on the Precor EFX:

- **Adjust the CrossRamp® to target specific muscle groups** – The CrossRamp can be altered to target specific muscle groups utilized in cycling. At the high ramp settings, the gluteal muscles are activated, while medium ramp settings target the hamstrings and quadriceps and lower ramp settings target the quadriceps. By adjusting the ramp setting, you can develop strength, power and endurance in each of the cycling specific muscle groups utilizing the EFX.
 - **To simulate standing hill climbing** – increase the CrossRamp incline to target the gluts. Stabilize your torso using core strength and keep your shoulders and arms relaxed.
 - **For endurance training** - use moderate ramp and resistance settings to target the hamstrings and quads. Focus on a high stride rate and the push and pull motion to simulate spinning.
- **Raise the stride rate and lower the resistance to target aerobic fitness** - the aerobic system is the long-term energy system for endurance. This is the most important physiologic system to train for cyclists.
 - **Pick up the stride rate** - To improve aerobic endurance, leg speed and explosive power, increase the stride rate to double your usual cadence. For example, if you ride at a cadence of 90, your goal EFX stride rate should be 180 strides per minute. Find a balance of medium resistance and high stride rate that works for you. Try the following workouts.
 - **General aerobic fitness:** Choose a lower resistance and moderate ramp setting while maintaining a stride rate which is 150-200% of your usual cycling cadence. The effort level should be from low to moderate. Perform longer workouts at these settings to build your aerobic endurance.
 - **Muscular endurance:** To build muscular endurance, use a lower resistance setting and maintain a moderate stride rate. The effort level should be low to moderate. Perform intervals of 1-2 minutes at varying CrossRamp settings with rest intervals of 1-2 minutes at a reduced effort level. Complete 20-30 intervals.
 - **VO2max sets:** These workouts help boost your VO2max (aerobic capacity). Aim for an effort intensity of 85-90% of your maximal exertion. Use a moderate ramp setting, moderate resistance, and very fast stride rate. To figure your optimal stride rate for this workout, double the fastest cadence you can maintain on the bike for 10 minutes. For example, if your fastest 10-minute cadence is 100 rpm, then your EFX stride rate should be 200 strides per minute. Alternate 3-minute work intervals with 3 minute easy rest intervals and complete a set of 4-6 intervals.

- **Neuromuscular response (leg speed):** The objective of this workout is to improve coordination and biomechanics. Perform intervals at high stride rate, moderately high ramp and low resistance settings to improve leg speed. Adjust the resistance to keep the effort level at a fairly low intensity while focusing on the push and pull (forward – backward) motions that resemble cycling. Increase the stride rate until you notice that you are not moving smoothly, and then lower the stride rate to achieve a fluid motion. Do three or four 20 second intervals with at least 3-5 minutes of easy recovery between them.
 - **Anaerobic capacity:** These sets are designed to increase your sprinting ability. Perform maximal intensity intervals at moderate resistance, moderate ramp, and high stride rate. Intervals should be 40 seconds in duration, followed by 90 seconds of rest.
 - **Explosive power intervals:** Choose a moderate ramp and moderate resistance and begin the interval at the fastest stride rate you can attain for 5 seconds, being sure to bring the stride rate up as fast as you can, then gradually reduce the stride rate by 20 strides per minute every 20 seconds for 40-60 seconds. The total interval time is 45-65 seconds. You can practice these from either a “standing” start, remaining still until the beginning of the interval, or a “rolling” start in which you begin the interval from a moderate stride rate setting. Each interval should be separated by 5 minutes of easy recovery. Complete a set of 8-10.
- **Reduce the stride rate and raise the resistance to target anaerobic fitness** - The anaerobic system provides speed and power for short-term high intensity efforts, important for successful cycling.
 - **Reduce the stride rate and raise the resistance** - The anaerobic system provides speed and power for short-term high intensity efforts. To improve strength, anaerobic conditioning and anaerobic power, reduce the stride rate to mid-way between your lowest and highest natural riding cadence. For example, if you ride between 60-100 rpm, then your goal stride rate for these workouts should be 80 strides per minute. Find a balance of higher resistance and lower stride rate that works for you. Try the following workouts.
 - **Anaerobic Power:** Choose higher resistance and lower stride rates to improve performance above the anaerobic threshold. This will enable you to perform at very high intensity for longer periods. The effort should be hard during the work interval. Try a set of long, hard intervals of 3-5 minutes with double the recovery time in between. Increase the number of work intervals or the duration each week.
 - **Max strength:** Develop strength by using a low stride rate (as above), high resistance and varying the ramp angle, depending on which muscle groups you’re targeting. The effort level should be hard during the work intervals. Try a series of very short intervals of 10-20 seconds with 3-minute active recovery intervals in between. Do 6-8 of these intervals per session.
 - **Power endurance:** Choose the lower stride rate as above and perform intervals using a moderate resistance level and varying ramp angle, depending on which muscle groups you’re targeting. Choose a resistance that allows you to achieve a moderate effort level. Work intervals should maintain a constant stride rate for 5-10 minutes. These intervals should be alternated with 10-minute easy recovery intervals consisting of a low resistance and high stride rate. Perform 2-3 of these intervals per session.

Summary:

- **Adjust the resistance**– Adjust the resistance to help achieve your goals. For aerobic conditioning, keep the resistance low enough to comfortably maintain a higher stride rate (double your cycling cadence). For strength and anaerobic workouts, increase the resistance and lower your stride rate.

- **Adjust the ramp**– Adjust the ramp to target specific muscle groups. At the high ramp settings, the gluteal muscles are activated, while medium ramp settings target the hamstrings and quadriceps and lower ramp settings target the quadriceps.
- **Adjust the stride rate**– Adjust the stride rate to target the aerobic or anaerobic systems. For aerobic conditioning, keep the stride rate high and for strength and anaerobic workouts, reduce the stride rate.
- **Focus on Body mechanics** – use the EFX to work on core control while keeping the upper body relaxed. Good core strength is required to maintain the higher stride rates. Core abdominal and torso conditioning is very important to cyclists, especially when hill-climbing.

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