

Reinventing the Modern Century Training Program

By Chris Carmichael



The century training program: probably the most-often produced piece of cycling training material in the world. So what makes this program different? It incorporates shorter, harder efforts to boost your aerobic capacity and strengthen your aerobic engine with fewer total hours on the bike. Improving endurance doesn't always have to mean long hours of training. Long, gradual buildups are great, but only if you have big chunks of time to devote to training. With a job and kids, I don't have that kind of time and you probably don't either. So here's the century training plan for the reality of today's busy lifestyles.

Note: The CTS Field Test is not scheduled within the plan, but do it beforehand so you can establish accurate training intensities.

Field Test Instructions

CTS Field Test: You'll need a heart-rate monitor that records laps and average heart rate and a three-mile flat to rolling course to ride. Start with at least a 10-minute warm-up. Then, from a standing start, ride the course as fast as you can. Record your time, average heart rate, and average power (if available). Cool down as you roll back to the start. Repeat the course and record the same data. Using the higher of the two average heart rates from your efforts, or the higher of the two average power outputs, calculate your training ranges based on the percentages below.

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	Rest	1:30 EM with Tempo: 3 10-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between	1:00 EM with PowerIntervals: 3 2-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	1:30 EM with Tempo: 3 10-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between	1:30 EM, 80-100 rpm cadence
2	Rest	1:00 EM with PowerIntervals: 3 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 3 minutes easy spinning in between	1:30 EM with Tempo: 2 15-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with Tempo: 2 15-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between	1:30 EM with Tempo: 3 10-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between

Weeks 3-7

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
3	Rest	1:00 EM with PowerIntervals: 3 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 3 minutes easy spinning in between	1:30 EM with Tempo: 2 15-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with Tempo: 2 20-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 10 minutes easy spinning in between	2:00 EM with Tempo: 4 10-minute intervals, 88-90% of FT HR, 70-75rpm cadence, 5 minutes easy spinning in between
4	Rest	1:00 EM, 80-100 rpm cadence	1:00 EM, 80-100 rpm cadence	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	1:00 EM, 80-100 rpm cadence	1:30 EM, 80-100 rpm cadence
5	Rest	1:00 EM with SteadyState intervals: 2 8-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	1:30 EM with FastPedal intervals: 3 2-minute intervals, no target HR range, max cadence, 5 minutes cruising recovery in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with SteadyState intervals: 2 8-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	2:00 EM, 80-100 rpm cadence
6	Rest	1:30 EM with PowerIntervals: 3 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 3 minutes easy spinning in between	1:30 EM with SteadyState intervals: 2 10-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with SteadyState intervals: 2 10-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	2:30 EM, 80-100 rpm cadence
7	Rest	1:30 EM with PowerIntervals: 4 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 3 minutes easy spinning in between	1:30 EM with SteadyState intervals: 3 8-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with SteadyState intervals: 3 8-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	3:00 EM, 80-100 rpm cadence

Weeks 8-12

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8	Rest	1:00 EM, 80-100 rpm cadence	1:00 EM with FastPedal intervals: 3 2-minute intervals, no target HR range, max cadence, 5 minutes cruising recovery in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	1:30 EM, 80-100 rpm cadence	1:30 EM, 80-100 rpm cadence
9	Rest	1:30 EM with PowerIntervals: 4 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	1:30 EM with SteadyState intervals: 3 10-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with PowerIntervals: 4 3-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	3:00 EM, 80-100 rpm cadence
10	Rest	1:30 EM with PowerIntervals: 6 2-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	1:30 EM with PowerIntervals: 6 2-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	2:00 EM with SteadyState intervals: 3 12-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	3:30 EM, 80-100 rpm cadence
11	Rest	1:30 EM with PowerIntervals: 6 2-minute intervals, 110+% of FT HR, 90+ rpm cadence, 1:30 minutes easy spinning in between	1:30 EM with PowerIntervals: 6 2-minute intervals, 110+% of FT HR, 90+ rpm cadence, 2 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	3:00 EM, 80-100 rpm cadence	2:00 EM, 80-100 rpm cadence
12	Rest	1:00 EM with FastPedal intervals: 3 2-minute intervals, no target HR range, max cadence, 5 minutes cruising recovery in between	1:30 EM with SteadyState intervals: 3 10-minute intervals, 92-94% of FT HR, 90-95 rpm, 6 minutes easy spinning in between	Optional :45 RecoveryMiles ride, 50-70% of FT HR, 75-85 rpm cadence	Rest	1:00 EM with FastPedal intervals: 3 2-minute intervals, no target HR range, max cadence, 5 minutes cruising recovery in between	Event

Workout Descriptions

EnduranceMiles (EM): Moderate-intensity ride at 80-100 rpm cadence, with the vast majority of the riding time at 50-91% of FT HR, 45-75% of FT Power. Intervals are done within the total EM time, not in addition to it.

FastPedal : In an easy gear, pedal as fast as you can sustain without bouncing in the saddle. Focus on pushing over the top and pulling through the bottom of the pedal stroke. No HR or Power range.

Tempo: Great moderate-intensity intervals for deep aerobic fitness and power. In a somewhat heavy gear than keeps your cadence between 70-75rpm, ride at 88-90% of FT HR or 80-85% of FT Power.

SteadyState: Key intervals for building maximum sustainable power. 90-95 cadence, 92-94% of FT HR, 86-90% of FT Power.

PowerIntervals:Maximum intensity intervals with purposely short recovery periods to boost your aerobic capacity. Keep your cadence above 90 rpm and aim for at least 100% of your FT HR or FT Power.

RecoveryMiles: An easy spin – and we mean EASY! Keep your effort level low, about 50-70% of FT HR or 30-50% of FT Power, and cadence about 80-85 rpm.

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