

TURBO TRAINING WORKOUTS

This document contains a “General Conditioning Program” and three “Advanced Routines”. The general conditioning program rolls over seven days, and the advanced routines are workouts for the athlete who has established an advanced level of cycling fitness.

General Conditioning Program	Advanced Routines
Day 1 - Maximum Strength / Power Day 2 - Stamina, Strength Orientated Day 3 - Speed Stamina Day 4 / Day 6 - Stamina, Speed Orientated Day 5 / Day 7 - Fartlek	Ready to Race Time Trial Terror Road Race Simulation

- Levels of effort have been stated in terms of rider power output (watts) and Rating of Perceived Exertion (RPE).
- The wattages given are accurate with respect to calibrated turbo trainers. These machines, e.g., the King Cycle or CycleOps eTrainer, are sometimes also referred to as ergometers or ergotrainers. I have noted a difference in the wattmeter readings on various machines and, on the Cateye CycloSimulator, I have successfully scaled the readings.
- Power output for a specific RPE will generally be lower for riders that are untrained, female, or even very small in stature, and therefore, in the detailed plans, I have included two columns, **W₂₀₀** and **W₃₅₀**.
W₂₀₀ is for a rider whose maximum effort lies around 200 watts, whilst **W₃₅₀** is for a rider whose maximum effort lies around 350 watts.

To establish your maximum power output, start at 100 watts, increase by 50 watts every 3 minutes until exhaustion point is reached.

- If your turbo trainer does not have a wattmeter, use RPE based on the Borg Scale, viz:

The Borg Scale has been used in exercise physiology laboratories and by coaches for years to assess an athlete’s level of exertion whilst they’re exercising. The Borg Scale is often referred to as RPE (Rating of Perceived Exertion) and is entirely subjective. Quite simply, when an athlete is being tested in a laboratory setting, they are asked to pinpoint how hard they feel they are working by giving the examiner a rating from a chart that is presented before them. The scale has been developed to have 11 points.	RPE (Rating of Perceived Exertion) Scale	
	0	Nothing at all
	1	Very light
	2	Light
	3	Moderate
	4	Somewhat heavy
	5	Heavy
	6	-
	7	Very heavy
	8	-
	9	-
10	Very, very heavy	
11	Maximal	

I suggest that you monitor your heart rate and build a relationship between the RPE levels of effort and your heart rate. This will enable you to train on the road in the appropriate training zone without having to continuously refer to your HRM.

Training Zones

- Z1 = 65 - 75% of LT. Warm-ups and recovery between harder efforts
- Z2 = 75 - 85% of LT. Basic aerobic training to improve body’s transport of oxygen
- Z3 = 85 - 90% of LT. Trains the body to use and replace carbohydrate stores
- Z4 = 95 - 105% of LT. Body learns to eliminate lactic acid
- Z5 = 110% of LT. Power bursts at max effort trains body’s CP (creatine phosphate) system

GENERAL CONDITIONING PROGRAM

Your schedule must be arranged such that higher intensities of exercise are completed before lower intensities and endurance exercises; i.e., train for sprints before intervals and for intervals before endurance

Day 1 - Maximum Strength / Power

Time (mins)	Level of Effort			Rpm	Reps	Total Time ~ 75 minutes
	W ₂₀₀	W ₃₅₀	RPE			
5-7	95	120	2	120		Warm-up. Begin easily, every minute increase cadence until you are spinning at 120 rpm (or close to 120)
0,5	240	420	5	120	5x	Repeat
1,5	80	100	1	100		
2	90	110	1	110		Recover
0,5	260	460	5+	115	5x	Repeat
1,5	80	100	1	100		
2	90	110	1	110		Recover
0,5	270	470	5+	105	5x	Repeat
1,5	80	100	1	100		
2	90	110	1	110		Recover
0,5	270	475	5+	95	5x	Repeat
1,5	80	100	1	110		
2	90	110	1	110		Recover
0,5	280	495	7	90	5x	Repeat
1,5	80	100	1	110		
5 to 10	95	120	1	120		Warm-down. Spin in an easy gear

Day 2 - Stamina, Strength Orientated

Time (mins)	Level of Effort			Rpm	Reps	Total Time ~ 75 minutes
	W ₂₀₀	W ₃₅₀	RPE			
5-7	95	120	2	120		Warm-up. Begin easily, every minute increase cadence until you are spinning at 120 rpm (or close to 120)
10	160	285	3	95	5x	Repeat
2	80	100	1	100		
5 – 10	95	120	1	120		Warm-down. Spin in an easy gear

Day 3 - Speed Stamina

Time (mins)	Level of Effort			Rpm	Reps	Total Time ~ 75 minutes
	W ₂₀₀	W ₃₅₀	RPE			
5-7	95	120	2	120		Warm-up. Begin easily, every minute increase cadence until you are spinning at 120 rpm (or close to 120)
1	95	165	2 - 3	110	7x	Repeat
1	100	173		115		
1	105	180		120		
1	110	188		125		
1	115	195		130		
1	115	188		125		
1	105	180		120		
1	100	173		115		
1	95	165		110		
5	95	120	1	120		Warm-down. Spin in an easy gear

Day 4 / Day 6 - Stamina, Speed Orientated

Time (mins)	Level of Effort			Rpm	Reps	Total Time ~ 75 minutes
	W ₂₀₀	W ₃₅₀	RPE			
5-7	95	120	2	120		Warm-up. Begin easily, every minute increase cadence until you are spinning at 120 rpm (or close to 120)
5	150	265	3	105	5x	Repeat
5	155	275	3+	110		
2	80	100	1	100		
5 - 10	95	120	1	120		Warm-down. Spin in an easy gear

Day 5 / Day 7 - Fartlek

Time (mins)	Level of Effort			Rpm	Reps	Total Time ~ 75 minutes
	W ₂₀₀	W ₃₅₀	RPE			
5-7	95	120	2	120		Warm-up. Begin easily, every minute increase cadence until you are spinning at 120 rpm (or close to 120)
5	125	220	2	110	n/a	
5	105	180	2-	120		
5	160	275	3	110		
5	125	220	2	110		
5	160	285	3+	95		
5	90	120	1	120		
5	160	285	3+	95		
5	90	120	1	120		
5	100	175	2-	115		
5	160	285	3+	95		
5	90	120	1	120		
5	125	220	2	110		
5	105	180	2-	120		
5	95	120	1	120		

ADVANCED ROUTINES

Ready to Race (ref: Lance Armstrong and his coach, Chris Carmichael)

Time (mins)	RPE	Reps	Total Time ~ 50 minutes
0 – 15	1 - 2	-	Warm-up. Spin in an easy gear. The last 7 minutes increase resistance slightly, and increase cadence by 10 rpm every minute until you reach about 120 rpm.
1	7	3x	Armstrong uses 500 watts on the CycleOps eTrainer
3	2		Armstrong uses 200 watts
10 secs	11		All-out sprint - Armstrong uses 800 watts
4	2		Spin
5 – 10	1	-	Warm-down. Spin in an easy gear at cadence 110-120 rpm.

Time Trial Terror (ref: *Smart Cycling*, coach Arnie Baker, M.D.)

Time (mins)	RPE	Reps	Total Time ~ 55 minutes
0 – 15	1 - 2	-	Warm-up. Spin in an easy gear. The last 7 minutes increase resistance slightly, and increase cadence by 10 rpm every minute until you reach about 120 rpm.
1	2	-	Pedal easily
1	3 - 10	12x	Stand up in a big gear (large chainring). Pedal at about 55 rpm for 4seconds, then increase cadence to 80 for the last 15 seconds. Repeat the pattern every minute.
1	2		Pedal easily
4	7	2x	Time trial at 85 rpm in a big gear
1	2		Spin
3	7+	2x	Time trial at 85 rpm in a big gear
1	2		Spin
5 – 10	1	-	Warm-down. Spin in an easy gear at cadence 110-120 rpm.

Road Race Simulation (ref: coach Malcolm Firth)

Time (mins)	Total Time ~ 70 minutes
0 – 15	Warm-up. Spin in an easy gear. The last 7 minutes increase resistance slightly, and increase cadence by 10 rpm every minute until you reach about 120 rpm.
45	Ride at about 95 rpm and an intensity not lower than high Z3, and mostly in Z4 for 25 mins. After 25 minutes begin the "attacks": 30 second flat out effort, return to Z3/Z4 for 5 minutes. Repeat this three times. Finish off with a 30 second sprint. Note: When you have done a few of these sessions, gradually increase the number and length of the "attacks" as well as vary where they come during the 45 min ride. For example, four, increasing to 6 "attacks", 30 sec to 3 min long, with 3 - 6min between them, plus a 30 sec sprint at the end. Concentrate on keeping up the speed between "attacks".
10	Warm-down. Spin in an easy gear at cadence 110-120 rpm.

