

wattbike

TRAINING PLAN

100 MILE SPORTIVE EVENT



100 MILE SPORTIVE EVENT TRAINING PLAN

ABOUT THE 100 MILE SPORTIVE EVENT

Completing a 'century' is no easy feat and there are certainly no shortcuts when it comes to training. Riding a 100-mile sportive – and enjoying the experience – requires dedicated training, mental toughness and an eye on your nutrition. During an event of this length, an amateur cyclist can expect to be on the road for anywhere between five and ten hours – expect a long day in the saddle! What's more, the route is unlikely to be pan flat – climbs, gravel and headwinds are all par for the course.

Training for a 100-mile sportive requires a combination of endurance and higher power work. This training plan uses a 'polarised' training model – 80% low-intensity; 20% high-intensity training – a proven and effective method of training for distance events. Use your training to test your limits and build confidence – knowing you've done the hard work ahead of the event, will give you a boost on the day. And in the lead up to the sportive use your training to test your nutrition strategy, so you know how to fuel your body over the 100-mile course.

Training is the perfect time to test your limits. It allows you to understand how far you can push your body and gives you the confidence to know that going into the event you have done the hard work.

ABOUT THIS TRAINING PLAN

This training plan is designed to give you the fitness and strength you need to ride a 100-mile sportive. It takes into account all the demands of a typical 100-mile event and will deliver you to the start line with the ability to achieve your goal, whether that's completing your first 'century', or aiming for a specific time.

- Strength
- Threshold training
- Endurance

The 'polarised' training model, incorporates a strength, a threshold and an endurance phase, designed to progress your fitness and training. Your training workload will progress by roughly 11% week on week throughout the plan, increasing in intensity and duration as you progress. The biggest training load comes in week 10 before a two-week taper, which will allow you to recover and maintain fitness ready for your event.



ABOUT THE AUTHORS

This plan is designed by Veloptima and InPursuitCoaching who together have more than 40 years of racing, coaching, scientific knowledge and experience. It brings together current tried and tested scientific principles, alongside cycling-specific coaching and training principles to make sure that you develop the specific physical qualities that you will need to complete a 100-mile sportive in fine style.



RECOMMENDED EQUIPMENT:

INDOORS:

750ml bottle
of water x2

A fan



Heart rate
monitor

Padded
cycling shorts

Wattbike

Cycling shoes,
cleats and
appropriate
pedals

OUTDOORS :

Breathable,
well-fitting
and safe
helmet

Polarised
sunglasses

Data recording
device with
power meter
and heart rate
monitor

Sunscreen

2x 750ml
water bottles



A short sleeve
jersey with
good pocket
space and
breathability

Padded cycling
shorts

Well
maintained
and correctly
fitting
road bike

Spare inner
tubes and
appropriate
tools

Cycling shoes,
cleats and
appropriate
pedals

TRAINING TIPS AND ADVICE

CONSISTENCY AND DECISION MAKING

- **Be adaptable.** Training and life are not always compatible - we get that. Swapping rest days and riding days can help to fit the plan around your life.
- **Consistency is key.** Skipping sessions, or taking a week off, will undoubtedly put pay to your progress. But if kids, work, DIY etc mean you can't complete an entire session don't stress out, shorten it instead.
- **Don't play catch up.** If you do miss a session completely don't try and squeeze it in - you could risk fatigue and injury. The plan is designed to gradually increase your workload and the focus shifts week by week, so if you miss a session simply draw a line under it and carry on with the plan. If you miss more than three sessions in a row go back to the beginning of that week and start again.



FATIGUE AND RECOVERY

As you move through this training plan you'll increase the workload on your body, which will undoubtedly make you tired and fatigued. Recognising the signs of fatigue is important so that you can allow your body to recover appropriately. Ways to spot fatigue:

Measure your heart rate

Measuring and recording your resting heart rate two-to-three times per week is a good way to monitor your general health. Increases of 10-20 beats per minute, compared to usual, could indicate illness or fatigue. Take a rest day and measure again the next day. If it's back to normal get back on the bike.

Monitor the quality of your sleep

The pros love sleep and so should you - it helps rebuild proteins and replenish muscle glycogen. Get into a routine where you go to bed and wake up at the same time each day, and don't take your phone to bed - the blue light is thought to disrupt sleep.

Listen to your body

If you're falling asleep at your desk and your muscles feel sore it is time to take a little break to recover before going back to the plan.

Add stretches to your warm up and cool down

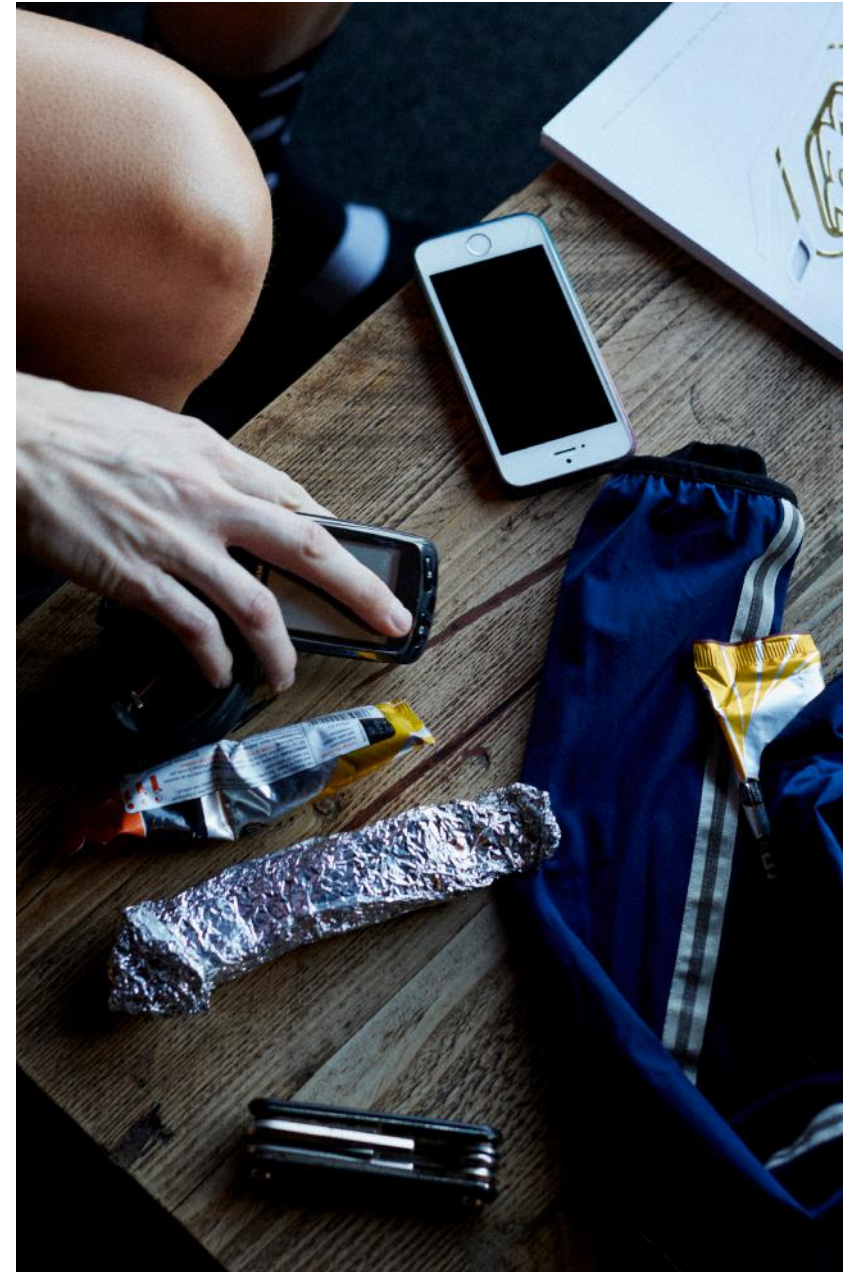
Adding a stretching routine to your warm up and cool down will improve the quality of your workout and speed up your recovery.

NUTRITION SUPPORT

Diet plays a huge role in your training. Eating well and timing your nutrition will ensure you are optimally fueled for each session – allowing you to dig deeper and train harder. Dialling your nutrition will help recovery between sessions too.

A 100-mile sportive is a predominantly endurance-based challenge, which presents unique nutritional needs. Here, are five tips for optimising your nutrition throughout this plan:

1. **Eat protein and carbohydrate within 30 minutes of finishing each training session.** This is the optimal time to replenish the stores you've used during exercise and to kickstart the recovery and adaptation process.
2. **Eat a balanced diet** of carbohydrates (roughly 60%), protein (roughly 25%) and fats (roughly 15%). Make sure this includes a good selection of vitamins and minerals derived from fruit and vegetables.
3. **Stay hydrated all the time.** Water is the main component of your body. Dehydration reduces performance and prevents recovery from exercise. Aim to drink approximately two litres of water per day plus 600-800 ml extra for every hour of exercise.
4. **Avoid processed and manufactured foods.** A diet of whole and natural foods will help you train and recover better.
5. **Eat during sessions longer than 90 minutes.** After 90 minutes you will have significantly depleted your muscle glycogen (fuel stores). Eating – real food or energy bars – will help your body keep up the intensity and quality of your workout. Aim for a minimum of 1 to 1.5g carbohydrate per kg of body weight per hour after the first hour. (E.g. if you weigh 80kg you'll need to eat 80g of carbs).

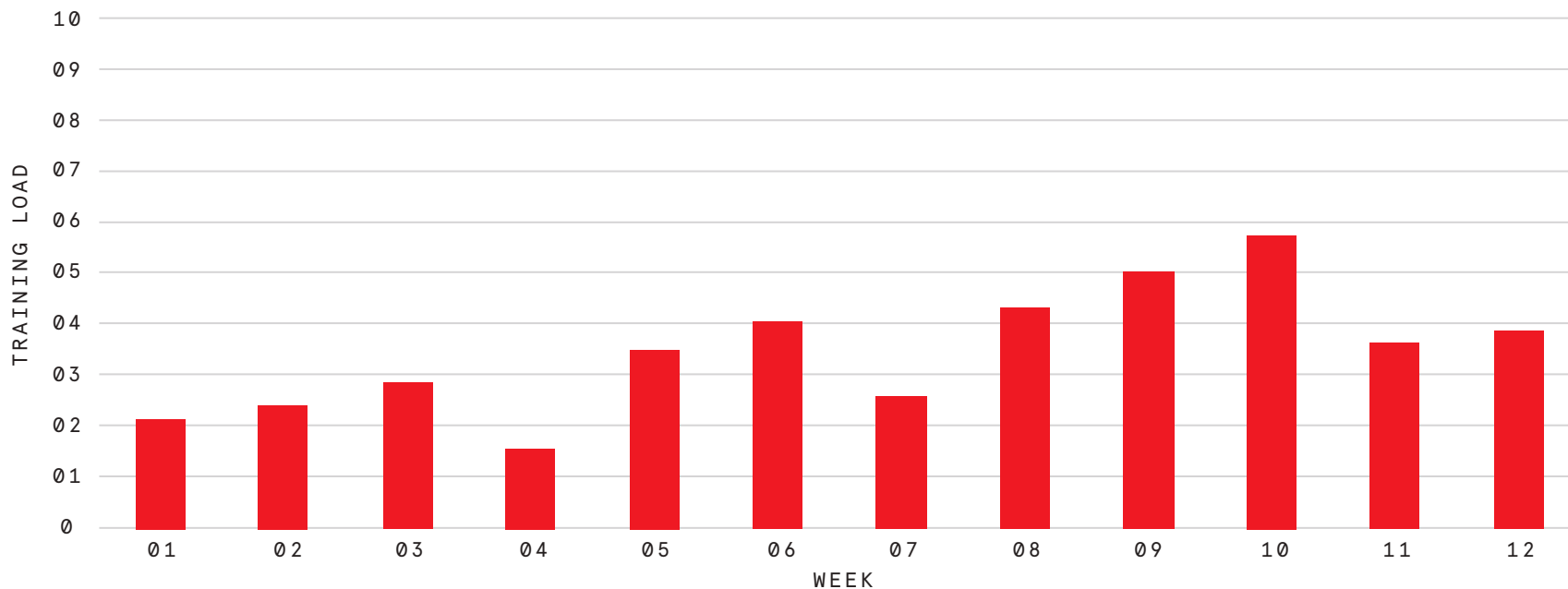


TRAINING LOAD

The duration and intensity of a training session place a stress on your body. This stress is commonly called ‘training load’. A shorter, low intensity session has a low training load and a longer, higher intensity session has a high training load.

This graph shows how training load is distributed week by week over the duration of the 100-Mile Sportive Plan. Some weeks have a high load, where the body is under physiological stress – as the body adapts to this stress your fitness should improve. Other weeks have a lower load, giving your body a chance to recover fully. Periods of lower load also help maximise your adaptation from the previous, higher intensity training sessions.

As the weekly training load increases throughout the plan, so does the physiological stress and as the two increase, so should your cycling fitness.



TESTING & TRAINING ZONES

Before you start a training plan it's useful to test, or evaluate, your current level of cycling fitness. Having a baseline will help gauge how effective your training is and can highlight any weaknesses.

For amateur cyclists and those testing at home, the 20-minute functional threshold power (FTP) test, or 'threshold test', is one of the most common ways to test fitness. An FTP test requires you to ride as hard as you can for 20-minutes. Measured in watts, it's used to determine your training zones (power and heart rate) and to measure improvement. Over time, as you progress through the plan your FTP should increase.

ZONE	DESCRIPTION	POWER (%FTP Power)	HEART RATE (%FTP HR)	PRIMARY PHYSIOLOGICAL ADAPTIONS
1	Active Recovery	<55	<68	Short term maintenance of physiological abilities
2	Endurance	56-75	69-83	Increased fat utilization
3	Tempo	76-90	84-94	Increased muscle glycogen storage and oxidative capacity
4	Lactate Threshold	91-105	95-105	Increased Oxidative capacity
5	VO2max	106-120	>106	Increased maximal cardiac output, increased oxidative capacity, fatigue resistance of fast twitch muscle fibres, increased power.
6	Anaerobic Capacity	121-150	N/A	Increased muscle buffering capacity, increased strength and power.

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BLOCK 1 FOCUS: STRENGTH

KEY

RED = Preferred session
BLACK = Alternative session

WEEK 1

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary	1 hour low cadence intervals		1 hour short intervals with shorter recovery's	40 mins low cadence intervals		1 hour steady state with mid length intervals	45 mins steady state
Wattbike Instructions	Warm up for 10 mins in zone 2, ride for 3 mins in zone 4 at a low cadence (<85rpm), 7 mins zone 2 recovery x5 (50 mins)	Rest Day	Warm up for 10 mins in zone 2, cycle for 40 secs in zone 4, 20 secs zone 1 x10, 5 mins zone 1 recovery then repeat a further two times (3 times in total), cool down in zone 2 for 5 mins	5 mins zone 1, 2 mins zone 4 low cadence (<85rpm) x5, 5 mins zone 1 cool down	Rest Day	1 hour zone 2 base miles ride with 2x 5 min zone 5 efforts	45 mins in zone 2
Outdoor Summary						1 hour 30 mins base miles with hills	1 hour base miles
Outdoor Instructions		Rest Day			Rest Day	1 hour 30 mins zone 2 base miles ride with 2x 5 mins zone 5 efforts on hills	1 hour zone 2 base miles ride

WEEK 2

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour low cadence intervals	1 hour short intervals with shorter recovery's	1 hour base miles		1 hour steady state with mid length intervals	30 mins recovery ride
Wattbike Instructions	Rest Day	Warm up for 10 mins in zone 2, ride for 1 min zone 5, 3 mins zone 1 x 8, 18 mins zone 2 cool down	10 mins zone 2 warm up, 5 mins zone 4 low cadence (<85rpm), 5 mins zone 2 x5, 18 mins zone 2 cool down	1 hour steady zone 2 ride	Rest Day	1 hour zone 2 with 1x 5 min low cadence (<85rpm) zone 4 effort	30 mins zone 1 active recovery ride
Outdoor Summary						1 hour 30 mins base miles with hills	50 mins recovery ride
Outdoor Instructions	Rest Day				Rest Day	1 hour 30 mins zone 2 steady flat ride with 1x 5 min low cadence (<85rpm) zone 4 effort	50 mins zone 1 active recovery ride

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WEEK 3

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour low cadence intervals	1 hour short intervals with shorter recovery's	60 mins low cadence intervals		45 mins steady state	1 hour 30 mins steady state with mid length intervals
Wattbike Instructions	Rest Day	Warm up for 10 mins in zone 2, ride for 4 mins in zone 4 at a low cadence (<85rpm), 6 mins zone 2 recovery x5 (50 mins)	Warm up for 10 mins in zone 2, cycle for 50 secs in zone 4, 10 secs zone 1 x10, 5 mins zone 1 recovery then repeat a further two times (3 times in total), cool down in zone 2 for 5 mins	5 mins zone 1 warm up, 3 mins zone 4 low cadence (<85rpm) 5 mins zone 1 Recovery x6 cool down in zone 2 for 7 mins	Rest Day	45 mins in zone 2	1 hour 30 mins in zone 2 with 3x 5 min zone 4 effort
Outdoor Summary						1 hour base miles	2 hour 30 mins base miles with climb efforts
Outdoor Instructions	Rest Day				Rest Day	1 hour flat zone 2 ride	2 hour 30 mins in zone 2 with 3x 5 min zone 4 climbs

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RECOVERY WEEK

WEEK 4

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour recovery ride	1 hour recovery ride		30 mins tempo session	1 hours 20 mins steady state	
Wattbike Instructions	Rest Day	1 hour zone 1 active recovery session, make sure you stay in zone 1 for the whole of this session	1 hour zone 1 active recovery session, make sure you stay in zone 1 for the whole of this session	Rest Day	30 mins zone 3 ride	1 hour 20 mins zone 2	Rest Day
Outdoor Summary					40 mins tempo ride	2 hours 20 mins base miles	
Outdoor Instructions	Rest Day			Rest Day	40 mins zone 3 ride	2 hour 20 mins zone 2 flat ride	Rest Day

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BLOCK 2 FOCUS: THRESHOLD TRAINING

WEEK 5

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour 30 mins over/under threshold intervals	1 hour 28 mins ramping intervals	1 hour tempo fat burning ride		1 hour 30 mins steady state with long intervals	45 mins steady state
Wattbike Instructions	Rest Day	10 mins zone 2 warm up, 4 mins zone 4, 6 mins zone 3 x7, 10 mins zone 1 cool down	10 mins zone 1 warm up, 6 mins zone 3, 2 mins zone 4, 7 mins zone 1 recovery x5, 3 mins zone 1 cool down	1 hour zone 3 ride	Rest Day	1 hour 30 mins zone 2 with 3x 10 mins zone 4 efforts	45 mins zone 2 effort
Outdoor Summary						3 hours base miles with treshold climbs	1 hour base miles
Outdoor Instructions	Rest Day				Rest Day	3 hour zone 2 ride with 3x 10 min zone 4 climbs	1 hour zone 2 steady flat ride

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WEEK 6

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour 30 mins over/under threshold intervals	1 hour 30 mins ramping intervals	1 hour 15 mins tempo fat burning ride		2 hours steady state with long intervals	1 hour steady state
Wattbike Instructions	Rest Day	10 mins zone 2 warm up, 5 mins zone 4, 5 mins zone 3 x7, 10 mins zone 1 cool down	10 mins zone 1 warm up, 8 mins zone 3, 2 mins zone 4, 5 mins zone 1 recovery x5, 5 mins zone 1 cool down	1 hour 15 mins zone 3 ride	Rest Day	2 hours zone 2 with 3x 10 min zone 4 efforts	1 hour zone 2 effort
Outdoor Summary						3 hours 30 mins base miles with trehsold climbs	1 hour 30 min base miles
Outdoor Instructions	Rest Day				Rest Day	3 hours 30 mins zone 2 ride with 3x 10 mins zone 4 climbs	1 hour 30 mins zone 2 steady flat ride

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RECOVERY WEEK

WEEK 7

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour recovery ride	1 hour recovery ride		1 hour tempo session	2 hours steady state	30 mins high cadence recovery ride
Wattbike Instructions	Rest Day	1 hour zone 1 active recovery ride	1 hour zone 1 active recovery ride	Rest Day	1 hour zone 3 effort	2 hour zone 2 effort	30 mins zone 1 effort keeping a high cadence (>95rpm)
Outdoor Summary					2 hours tempo ride	3 hours base miles	1 hour high cadence recovery ride
Outdoor Instructions	Rest Day			Rest Day	2 hours zone 3 ride	3 hours zone 2 steady flat ride	1 hour zone 1 easy flat ride on the road keeping a high cadence (>95rpm)

BLOCK 3 FOCUS: ENDURANCE/FAT UTILISATION

WEEK 8

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		45 mins threshold effort	1 hour 30 mins high cadence intervals	1 hour 30 mins steady state with medium and long intervals	1 hour tempo effort	30 mins tempo/max aerobic intervals	2 hours steady state with long intervals
Wattbike Instructions	Rest Day	10 mins zone 2 warm up, 30 mins zone 4 threshold effort, 5 mins zone 2 cool down	10 mins zone 2 warm up, 1 min zone 5 high cadence (>95rpm), 4 mins zone 2 x5, 20 mins zone 2 then repeat, 10 mins zone 2 cool down	1 hour 30 mins zone 2 session with 1x zone 5 5 mins effort and 2x 10 mins zone 4 efforts separated by at least 10 mins	10 mins zone 1 warm up, 40 mins zone 3, 10 mins zone 1 cool down	10 mins zone 1 warm up, 10 mins zone 3, 5 mins zone 5, 5 mins zone 1 cool down	2 hours zone 2 effort with 1x 20 mins zone 4 effort
Outdoor Summary				2 hour 30 mins base miles with climbing efforts	1 hour 40 mins tempo fat burning ride	50 mins tempo/max aerobic intervals	3 hours base miles with threshold climbs
Outdoor Instructions	Rest Day			2 hours 30 mins zone 2 ride with 1x zone 5 5 mins climb and 2x 10 mins zone 4 climbs separated by at least 10 mins	10 mins zone 1 warm up, 1 hour 20 mins zone 3, 10 mins zone 1 cool down	10 mins zone 1 steady warm up, 10 mins zone 3, 5 mins zone 5 x2, 10 mins zone 1 cool down	3 hours zone 2 ride with 1x 20 mins zone 4 climbs/effort

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour threshold effort	1 hour 30 mins high cadence intervals	1 hour steady state	1 hour tempo fat session.	50 mins tempo/max aerobic intervals	2 hours steady state with long intervals
Wattbike Instructions	Rest Day	10 mins zone 2 warm up, 40 mins zone 4 threshold effort, 10 mins zone 2 cool down	10 mins zone 2 warm up, 2 mins zone 5 high cadence (>95rpm), 3 mins zone 2 x5, 20 mins zone 2 then repeat, 10 mins zone 2 cool down	1 hour zone 2	1 hour zone 3 effort	10 mins zone 1 steady warm up, 10 mins zone 3, 5 mins zone 5 x2, 10 mins zone 1 cool down	2 hours zone 2 session with 3x 20 mins zone 4 efforts
Outdoor Summary				1 hour base miles	1 hour 30 mins tempo fat burning ride	1 hour 5 mins tempo/max aerobic intervals	5 hours base miles with threshold climbs
Outdoor Instructions	Rest Day			1 hour zone 2 base miles ride	1 hour 30 mins zone 3 ride	10 mins zone 1 steady warm up, 10 mins zone 3, 5 mins zone 5 x3, 10 mins zone 1 cool down	5 hours zone 2 ride with 3x 20 mins zone 4 climbs/efforts

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WEEK 10

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour 30 mins threshold effort	1 hour 30 mins high cadence intervals	1 hour steady state with long intervals		1 hours tempo/max aerobic intervals	2 hours steady state with long intervals
Wattbike Instructions	Rest Day	15 mins zone 2 warm up, 1 hour zone 4 threshold effort, 15 mins zone 2 cool down	10 mins zone 2 warm up, 3 mins zone 5 high cadence (>95rpm), 2 mins zone 2 x5, 20 mins zone 2 then repeat, 10 mins zone 2 cool down	1 hour zone 2 session with 2x zone 3 10 min climbs at a low cadence (<85rpm) separated by at least 10 mins	Rest Day	10 mins zone 1 steady warm up, 10 mins zone 3, 5 mins zone 5 x3, 5 mins zone 1 cool down	2 hours zone 2 session with 5x 15 mins zone 4 efforts
Outdoor Summary				2 hours base miles ride with low cadence climbs		1 hour 30 mins tempo/max aerobic intervals	5 hours base miles with threshold climbs
Outdoor Instructions	Rest Day			2 hours zone 2 ride with 2x zone 3 10 mins climbs at a low cadence (<85rpm) separated by at least 10 mins	Rest Day	15 mins zone 1 steady warm up, 10 mins zone 3, 5 mins zone 5 x4, 15 min zone 1 cool down	5 hours zone 2 ride with 6x 15 mins zone 4 climbs/efforts

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RECOVERY WEEK

WEEK 11

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour recovery ride	1 hour recovery ride	30 mins recovery ride		2 hours steady state with high cadence efforts	2 hours steady state with high cadence efforts
Wattbike Instructions	Rest Day	1 hour zone 1 active recovery session	1 hour zone 1 active recovery session	30 mins zone 1 active recovery session	Rest Day	2 hours zone 2 steady session with 3x 30 min efforts at high cadence (>95rpm)	2 hour zone 2 steady session with 3x 30 min efforts at high cadence (>95rpm)
Outdoor Summary						3 hours 30 mins base miles with high cadence climbs	4 hours base miles with high cadence climbs
Outdoor Instructions	Rest Day				Rest Day	3 hours 30 mins zone 2 steady ride with 3x 30 mins efforts/climbs at high cadence (>95rpm)	4 hours zone 2 steady ride with 3x 30 mins efforts/climbs at high cadence (>95rpm)

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TAPER WEEK

WEEK 12

SPORTIVE EVENT
100 MILE TRAINING PLAN

	MON	TUE	WED	THU	FRI	SAT	SUN
Wattbike Summary		1 hour 10 mins short high cadence intervals.	45 mins steady state with medium intervals	1 hour steady state with high cadence efforts		1 hour 40 mins max aerobic intervals into threshold effort	1 hour Activation session
Wattbike Instructions	Rest Day	10 mins zone 1 warm up, 20 secs zone 5 high cadence (100+), 40 secs zone 1 recovery x10, 10 mins zone 1 recovery then repeat to complete a total of 3 times, 10 mins zone 1 cool down	45 mins zone 1 session with 3x 5 min zone 5 efforts separated by 5 mins	1 hour zone 1 ride with 2x 10 min zone 4 efforts and 2x zone 5 5 min high cadence (100rpm+) efforts	Rest Day	10 mins zone 1 warm up, 5 mins zone 5 high cadence, 5 mins zone 1 recovery x4, 40 mins zone 4 threshold effort, 10 mins zone 1 cool down	Activation Session 20 mins zone 1 warm up, 10 mins zone 4 high cadence (95+), 5 mins zone 1, 10 secs 90% maximal sprint, 50 secs zone 1 recovery x6, 9 mins zone 4, 10 mins zone 1 cool down
Outdoor Summary			1 hour easy ride with climbs	1 hour 30 mins easy ride with high cadence climbs			
Outdoor Instructions	Rest Day		1 hour zone 1 steady ride with 4x 5 mins zone 5 climbs separated by at least 10 mins	1 hour 30 mins zone 1 ride with 2x 10 mins zone 4 climbs and 2x zone 5 5 min high cadence (100rpm+) efforts separated by at least 10 mins	Rest Day		

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