



CYCLING TRAINING GUIDE



SHELTER
SCOTLAND

CONTENTS

02

Getting ready to train

How do I start training for a cycling event?
What equipment do I need?
Warm up and cool down

06

Injury prevention

Hydration
Nutrition
Injury prevention

07

Staying motivated

Motivation
Join a cycling club
Cycle with a friend
Cross training
Remember why you're in Team Shelter Scotland
Feeling tired and bored?
Share the excitement!

08

Using the plans

Shelter Scotland's training programmes
How do you gauge your effort levels?
How to use the RPE scale
Rating exertion
Exertion ratings

12

60 mile training plan

14

100 mile training plan

16

Multiday training plan

18

Resistance training

Chest press
Seated row
Squats
Lunges
Dorsal raise
Plank

20

Training tips

GETTING READY TO TRAIN



How do I start training for a 60 mile, 100 mile or 300 mile cycling event with Team Shelter Scotland?

Before starting any rigorous challenge it's important to check you are healthy. If you have any doubts at all, you should have a medical check-up. At the very least have your blood pressure measured. Most gyms will do this for you, especially if you explain that you are training for a sportive.

Most training should be part of an ongoing lifestyle, but if this is not the case then you should begin training up to six months prior to the challenge. If you are very unfit and this is the first time you have ever undertaken a long distance cycle challenge, then this time may need to be extended.

What equipment do I need?

A cycling challenge will need more equipment than an event like a marathon, but there are a wide variety of price points to suit all budgets.

A roadworthy bike would be considered the most important piece of equipment. If you are using an old bike it might be worth having your bike serviced by a local cycling shop to ensure all the parts are in good working order.

If you are buying a new bike we would suggest trying them before you buy one. Most reputable cycling shops should offer this service and also give you advice on the best style to buy.

It's a good idea to get your bike set-up by a professional, to make sure it's as well suited to you as possible. This will help to reduce injuries and prevent any long-term damage. Your local bike shop will be able to recommend the best place to get a bike fitting.

The other main essential is a well-fitting helmet – we would advise you to wear this even on the shortest of journeys.

Essential

- Padded shorts – these reduce the pressure on your bottom and reduce the likelihood of saddle sores
- Cycling jersey – these are great for storing snacks and energy gels during your rides
- Gloves – ideally cycling specific, as they have padding on the palms to reduce pressure
- Watch or heart rate monitoring device – to help you understand your training intensity
- Water bottle – hydration is important when doing any sport
- Lights and reflective bands – these are imperative if you are riding in the dark

Nice to have

- Cycling shoes and pedals – these clip your feet securely onto the pedal so you can apply pressure around the whole of the pedal stroke. Be careful where you practise using them initially, as you could fall over when coming to a standstill
- Upper body base layer – these wick away the sweat when you are cycling so that you don't get cold
- Leggings – these are tight fitting and will keep your muscles warm without bulk in cold weather
- Skull cap/hat – this goes under your cycling helmet to keep you warm if it is cold
- Waterproof jacket – for cold and wet days, as wind resistance cools the body quickly
- Gel saddle – saddles are a personal choice, but longer rides are typically better on thinner saddles, as this reduces the likelihood of saddle sores
- Chamois cream – reduces the chance of saddle sores

Warm up and cool down

Before your cycle

Before starting your ride, walk for around five minutes, then start a jog and take your muscles through a full range of movements. Cycling can restrict some joints, so getting them moving is essential.

Start with swinging your arms in the way a 100m sprinter would. Then, do knee raises so that if you hold your hands at waist height they will just about touch. Bring your heels to the underside of your bottom. Finally, put all three movements together. This will not only raise your heart rate, but will also warm up your muscles.

Five-minute walk/light jog

Arm swinging

Knee raises

Heel raises

Walking lunges

All three together

Repeat three times

When you finish cycling

After you've finished training, cycle slowly for 10 minutes, stretch, have something to drink and eat, then shower.

Stretching helps to keep the muscles long, and long muscles are strong muscles. Stretch calves, hamstrings, quadriceps, hip flexors, lower back, chest and neck muscles. Hold each stretch for about 30 seconds, but longer on tighter muscles if possible. You should only feel tension – there shouldn't be any pain. You should also stretch on rest days as this will stop the muscles shortening and becoming stiff.

Keep warm either by staying indoors or putting on extra clothes and removing cold, sweaty clothes.

Eat something within 20 minutes of finishing your session. Ideally, a mixture of carbohydrate and protein aids recovery, but avoid fatty/sugary foods.

INJURY PREVENTION

Hydration

Different people have different sweat rates. As a rough guide, you should be drinking two litres or more of water each day, plus drinking enough during and after you train. The easiest way to tell whether you are hydrated is to check the colour of your urine. If you are properly hydrated it should be a pale straw colour. If you are dehydrated, you increase the chance of getting injured. Being three per cent dehydrated will reduce your performance by 10 per cent.

Coffee and tea are diuretics (they make you pee), so if you are drinking a lot of these products then you need to increase the amount of water that you drink.

Nutrition

Consider the amount of food and calories you're taking in. When training, you'll burn additional calories. Ideally you should be using training rides to test out your refuelling methods. This should include trying different foods while cycling, as you will need to eat during your event and need to be sure this does not upset your digestive system.

Injury prevention

Science shows that when we train we actually damage the muscle fibres. These are called micro tears. When we rest, the small tears to the muscles fix themselves and make the muscles stronger. When we get injuries, it's normally because we haven't let the body repair itself enough. The micro tears then become macro tears (in other words, a torn muscle).



STAYING MOTIVATED

Motivation

Even the super fit, like Bradley Wiggins and Chris Froome, have days when they would rather sit in front of the TV and have a day off! So what can you do to make sure your training stays on track?

When you first join Team Shelter Scotland and start out on the road to your event, it's important that you have the support of your family, friends and work colleagues. After all, you're cycling for a good cause – helping people in desperate housing need – and you'll need encouragement to help you raise the sponsorship. Once everyone is onboard, it's easier for them to support you when you need it most.

Join a cycling club

Long rides are much more enjoyable if you are with other people. You will be with others who are trying to achieve similar goals and going through the same stresses and strains. Most good clubs will let you join in on a few rides before you commit to paying a membership fee.

Cycle with a friend

Find a cycling buddy who is about the same pace as you. This way you can talk about what is going right. Always be positive with each other – remember, the glass is always half full!

Cross training

This allows you to do something different, while still building your fitness levels. You might like to do this with some of your family and friends.

Remember why you're in Team Shelter Scotland

What you're doing will make a difference and that's why you are putting yourself out there, working really hard. You want to achieve something not only for yourself, but to help other people as well.

Feeling tired and bored?

Don't be a slave to your programme. You don't need to complete every session on the set day. Missing an occasional session or taking it a little easier will not do any harm when it comes to achieving your goal.

Share the excitement!

Make sure you spread the word on race day by sharing photos on Twitter, Instagram and Facebook. It will encourage people to sponsor your cycle, and will make sure you have great memories from the day. We'll be retweeting and sharing the best photos on Shelter Scotland's social media, so make sure you use the hashtag #TeamShelterScotland.

USING THE PLANS



Shelter Scotland's training programmes are simple, progressive plans lasting 16 weeks

Each week consists of:

- a long steady ride – the main aim of these sessions is to build up your aerobic capacity and prepare your body, including muscles, tendons and ligaments, for the event you are training towards
- a recovery ride – these are especially important, as they help keep the body active while promoting blood flow to muscles that have been working hard. Take note that adaptations occur during recovery/active rest periods, so ensure you take these sessions easy
- tempo sessions – a more challenging session with a constant workload
- threshold sessions – these sessions will really challenge your anaerobic capacity. Spend 1/3 of these sessions working on varied length intervals. This could include hill climbing or working at a level you know you could not maintain for more than five to ten minutes.

How do you gauge your effort levels on the above workouts?

A simple test to ensure you are working out your correct training intensities is completing a 30-minute time trial. For this you need to either have a route that does not have any excessive inclines, a turbo trainer or use a bike in your local gym, plus a heart rate monitor. After 10 minutes you need to record your average heart rate for the last 20 minutes of the ride. This test should be as fast as you can ride, but maintain a consistent speed.

If you have not done this type of test before, the more frequently you complete the exercise, the better the result you will get, as you will understand the technical demands and gauge your intensity better.

Your workouts can now be specifically tailored to your lactate threshold heart rate (LTHR) using the table below.

Zone	RPE (rate of perceived exertion)	Purpose	% of LTHR
1	<10	Recovery rides	65–81
2	10–12	Long rides	82–88
3	13–14	Tempo	89–93
4	15–16	Threshold	94–100

How to use the RPE scale

An example of someone with an LTHR of 160bpm (heartbeats per minute) during their time trial would be the following:

- Zone 1: Recovery rides = 104–130bpm
- Zone 2: Long ride = 131–141bpm
- Zone 3: Tempo = 142–149bpm
- Zone 4: Threshold = 150–160bpm

All of the plans are based on time on your bike, so fitter individuals will ride further than those with lower fitness levels.

Alternatively, for those without access to a heart rate monitor, we would suggest using the RPE (Borg Rating of Perceived Exertion) scale in the table on page 11.

Rating exertion

While doing physical activity, we want you to rate your perception of exertion. This feeling should reflect how heavy and strenuous the exercise feels to you, combining all sensations and feelings of physical stress, effort, and fatigue. Do not concern yourself with any one factor such as leg pain or shortness of breath, but try to focus on your total feeling of exertion.

Look at the rating scale on page 11 while you are engaging in an activity; it ranges from six to 20, where six means 'no exertion at all' and 20 means 'maximal exertion'. Choose the number from below that best describes your level of exertion. This will give you a good idea of the intensity level of your activity, and you can use this information to speed up or slow down your movements to reach your desired range.

Try to appraise your feeling of exertion as honestly as possible, without thinking about what the actual physical load is. Your own feeling of effort and exertion is important, not how it compares to others. Look at the scale and the description and then give a number.

Exertion ratings

Scale	Description
6	No exertion at all
7	Very, very light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard (heavy)
18	
19	Extremely hard
20	Maximal exertion

9 corresponds to 'very light' exercise. For a healthy person, it is like walking slowly at his or her own pace for some minutes.

13 on the scale is 'somewhat hard' exercise, but it still feels OK to continue.

17 is 'very hard' or very strenuous. A healthy person can still go on, but they really have to push themselves. It feels very heavy, and the person is very tired.

19 on the scale is an extremely strenuous exercise level. For most people, this is the most strenuous exercise they have ever experienced.

Borg RPE scale © Gunnar Borg, 1970, 1985, 1994, 1998

60 MILE TRAINING PLAN



	Mon	Tue	Duration	Wed	Duration	Thu	Fri	Duration	Sat	Sun	Duration
Week 1	Off	Active recovery	30mins	Threshold	20mins	Off	Tempo	30mins	Off	Long ride	45mins
Week 2	Off	Active recovery	30mins	Threshold	20mins	Off	Tempo	30mins	Off	Long ride	50mins
Week 3	Off	Active recovery	30mins	Threshold	30mins	Off	Tempo	40mins	Off	Long ride	55mins
Week 4	Off	Active recovery	30mins	Threshold	30mins	Off	Tempo	45mins	Off	Long ride	60mins
Week 5	Off	Active recovery	30mins	Tempo	45mins	Off	Threshold	30mins	Off	Long ride	70mins
Week 6	Off	Active recovery	30mins	Threshold	30mins	Off	Tempo	45mins	Off	Long ride	80mins
Week 7	Off	Active recovery	30mins	Threshold	45mins	Off	Tempo	45mins	Off	Long ride	90mins
Week 8	Off	Active recovery	30mins	Tempo	20mins	Off	Active recovery	30mins	Off	Long ride	60mins
Week 9	Off	Active recovery	30mins	Threshold	30mins	Off	Tempo	45mins	Off	Long ride	100mins
Week 10	Off	Active recovery	30mins	Threshold	35mins	Off	Tempo	50mins	Off	Long ride	120mins
Week 11	Off	Active recovery	30mins	Tempo	50mins	Off	Threshold	45mins	Off	Long ride	135mins
Week 12	Off	Active recovery	30mins	Threshold	50mins	Off	Tempo	55mins	Off	Long ride	150mins
Week 13	Off	Active recovery	30mins	Threshold	50mins	Off	Tempo	60mins	Off	Long ride	160mins
Week 14	Off	Active recovery	30mins	Threshold	50mins	Off	Tempo	55mins	Off	Long ride	100mins
Week 15	Off	Active recovery	30mins	Threshold	50mins	Off	Tempo	35mins	Off	Long ride	60mins
Week 16	Off	Active recovery	30mins	Flex	20mins	Off	Active recovery	30mins	Off	Sportive	-

100 MILE TRAINING PLAN



	Mon	Tue	Duration	Wed	Duration	Thu	Duration	Fri	Duration	Sat	Sun	Duration
Week 1	Off	Active recovery	30mins	Threshold	40mins	Active recovery	30mins	Tempo	60mins	Off	Long ride	90mins
Week 2	Off	Active recovery	30mins	Threshold	40mins	Active recovery	30mins	Tempo	60mins	Off	Long ride	120mins
Week 3	Off	Active recovery	30mins	Threshold	60mins	Active recovery	40mins	Tempo	75mins	Off	Long ride	120mins
Week 4	Off	Active recovery	30mins	Threshold	60mins	Active recovery	40mins	Tempo	75mins	Off	Long ride	150mins
Week 5	Off	Active recovery	30mins	Tempo	90mins	Active recovery	40mins	Threshold	60mins	Off	Long ride	180mins
Week 6	Off	Active recovery	30mins	Threshold	60mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	210mins
Week 7	Off	Active recovery	30mins	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	240mins
Week 8	Off	Active recovery	30mins	Tempo	40mins	Off	-	Active recovery	30mins	Off	Long ride	120mins
Week 9	Off	Active recovery	30mins	Threshold	60mins	Active recovery	40mins	Tempo	75mins	Off	Long ride	180mins
Week 10	Off	Active recovery	30mins	Threshold	60mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	240mins
Week 11	Off	Active recovery	30mins	Tempo	90mins	Active recovery	60mins	Threshold	90mins	Off	Long ride	270mins
Week 12	Off	Active recovery	30mins	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	300mins
Week 13	Off	Active recovery	30mins	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	330mins
Week 14	Off	Active recovery	30mins	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	210mins
Week 15	Off	Active recovery	30mins	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	Long ride	150mins
Week 16	Off	Active recovery	30mins	Flex	20mins	Tempo	40mins	Active recovery	30mins	Off	Sportive	-

MULTIDAY TRAINING PLAN



	Mon	Duration	Tue	Wed	Duration	Thu	Duration	Fri	Duration	Sat	Duration	Sun	Duration
Week 1	Active recovery	30mins	Off	Threshold	40mins	Active recovery	30mins	Tempo	60mins	Off	-	Long ride	90mins
Week 2	Active recovery	30mins	Off	Threshold	40mins	Active recovery	30mins	Tempo	60mins	Off	-	Long ride	120mins
Week 3	Active recovery	30mins	Off	Threshold	60mins	Active recovery	40mins	Tempo	75mins	Off	-	Long ride	120mins
Week 4	Active recovery	30mins	Off	Threshold	60mins	Active recovery	40mins	Tempo	75mins	Off	-	Long ride	150mins
Week 5	Active recovery	30mins	Off	Tempo	90mins	Active recovery	40mins	Threshold	60mins	Off	-	Long ride	180mins
Week 6	Active recovery	30mins	Off	Threshold	60mins	Active recovery	60mins	Tempo	90mins	Off	-	Long ride	210mins
Week 7	Active recovery	30mins	Off	Threshold	90mins	Active recovery	60mins	Tempo	90mins	Off	-	Long ride	240mins
Week 8	Active recovery	30mins	Off	Tempo	40mins	Off	-	Off	-	Active recovery	30mins	Long ride	120mins
Week 9	Active recovery	30mins	Off	Threshold	60mins	Active recovery	40mins	Off	-	Tempo	75mins	Long ride	180mins
Week 10	Active recovery	30mins	Off	Threshold	60mins	Active recovery	60mins	Off	-	Tempo	90mins	Long ride	240mins
Week 11	Active recovery	30mins	Off	Tempo	90mins	Active recovery	60mins	Off	-	Threshold	90mins	Long ride	270mins
Week 12	Active recovery	30mins	Off	Threshold	90mins	Active recovery	60mins	Off	-	Tempo	90mins	Long ride	300mins
Week 13	Active recovery	30mins	Off	Threshold	90mins	Active recovery	60mins	Off	-	Tempo	90mins	Long ride	330mins
Week 14	Active recovery	30mins	Off	Threshold	90mins	Active recovery	60mins	Off	-	Tempo	90mins	Long ride	210mins
Week 15	Active recovery	30mins	Off	Threshold	60mins	Active recovery	60mins	Off	-	Tempo	60mins	Long ride	60mins
Week 16	Active recovery	30mins	Event									Off	Off

RESISTANCE TRAINING



Resistance training for cycling

These exercises help strengthen your muscles, improve your stamina and ensure you are keeping a balance in the work that your body is being required to do. Ensuring these exercises are completed 1-2x/week will improve your overall strength and reduce the likelihood of future injuries.

Chest press

Set seat so your hands are in line with your mid chest. Maintain a neutral spine and keep your wrists straight. Extend your arms until your elbow is straight, but avoid fully extending your joints. Lower and repeat.

Seated row

Seat pad should be against your chest. Grip handles with palms facing, keeping neutral spine. Draw weight towards torso, with elbows passing sides, then lower and repeat.

Squats

Stand with your feet shoulder-width apart; place your hands on your hips. Keeping your back straight and head up, bend your knees to 90 degrees and lower yourself down towards the floor; hold for a few seconds before standing up straight. Repeat 20 times, rest for 20 seconds then complete another 10 repetitions.

Lunges

Start with your feet together, put your hands on your hips and then take a big pace forward, bending your knees so your front knee is at 90 degrees and the back knee is down towards the floor. Step back so that your feet are together again and then step forward with the other leg and repeat the exercise. Complete 10 lunges on each leg.

Dorsal raise

Lay prone on the floor with hands at a 45-degree angle from your sides. Keep feet in contact with the floor while raising your upper body, and lifting your head and shoulders off the ground. Ensure your head and neck stays in alignment throughout.

All of the above should be completed in 2-3 sets of 12-15 repetitions, ideally 1-2 x/week.

Plank

Lay prone on the floor with elbows bent and forearms alongside your chest. Raise your torso off the floor so your weight is resting on your toes and elbows, while keeping a neutral spine position throughout. Build up your holds to between 60-90 secs and complete 1-2 x/week.

TRAINING TIPS



Follow these training tips to help you reach your goals

- 1 Pedal rate or cadence is very important. New cyclists are typically advised to pedal between 50–70rpm, with more experienced cyclists maintaining between 70–90rpm. Ensure your speed is consistent.
- 2 Use your gears and always plan ahead. If you are at traffic lights or a junction, start off in an easy gear, get into a rhythm and change when ready. This reduces stress on your muscles and helps maintain your bike components.
- 3 If you are new to cycling, or haven't cycled on the roads for some time, be mindful of other road users, always signal your intentions and follow the Highway Code.
- 4 One hour of quality workout in the gym is worth two hours out on the road, but does not prepare you to physically push a bike through the air.
- 5 Active recovery days could/should include a different activity. Rowing, swimming or the cross trainer all allow your body to keep moving, but change the patterns of movement to help you avoid injuries.
- 6 Weight training is good for maintaining muscle balance and injury prevention.
- 7 Spinning classes are excellent, especially on cold, dark nights during the winter months.
- 8 Turbo trainers are very good, especially during the winter months as they enable you to train indoors on a 'real' bike. This will keep you fit and get you used to the shape of your bike. Fluid turbo trainers are quieter if noise is a problem in your household.
- 9 If you can cycle to work, do so. This will reduce the amount of time you need to spend training.
- 10 Joining a leisure centre is a good idea, as the fitness instructors may well be able to design a programme specifically for you using the many different cycle trainers in gyms. Most good gyms have exercise bikes and can advise on good leg exercises for cyclists.
- 11 Make sure you plan adequate rest/recovery days as part of the training.
- 12 When cycling on uneven terrain, remember to keep the pedals flat when coming downhill and raise the pedal on the side you are banking into to keep pedals free of any obstacles.
- 13 Try to cycle with your head up and eyes focused ahead, anticipating the gears needed and any dangers ahead.

We exist to defend the right to a safe home and fight the devastating impact the housing emergency has on people and society.

We believe that home is everything.

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For online housing advice and access to our emergency helpline, visit:
shelterscotland.org/housing_advice

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