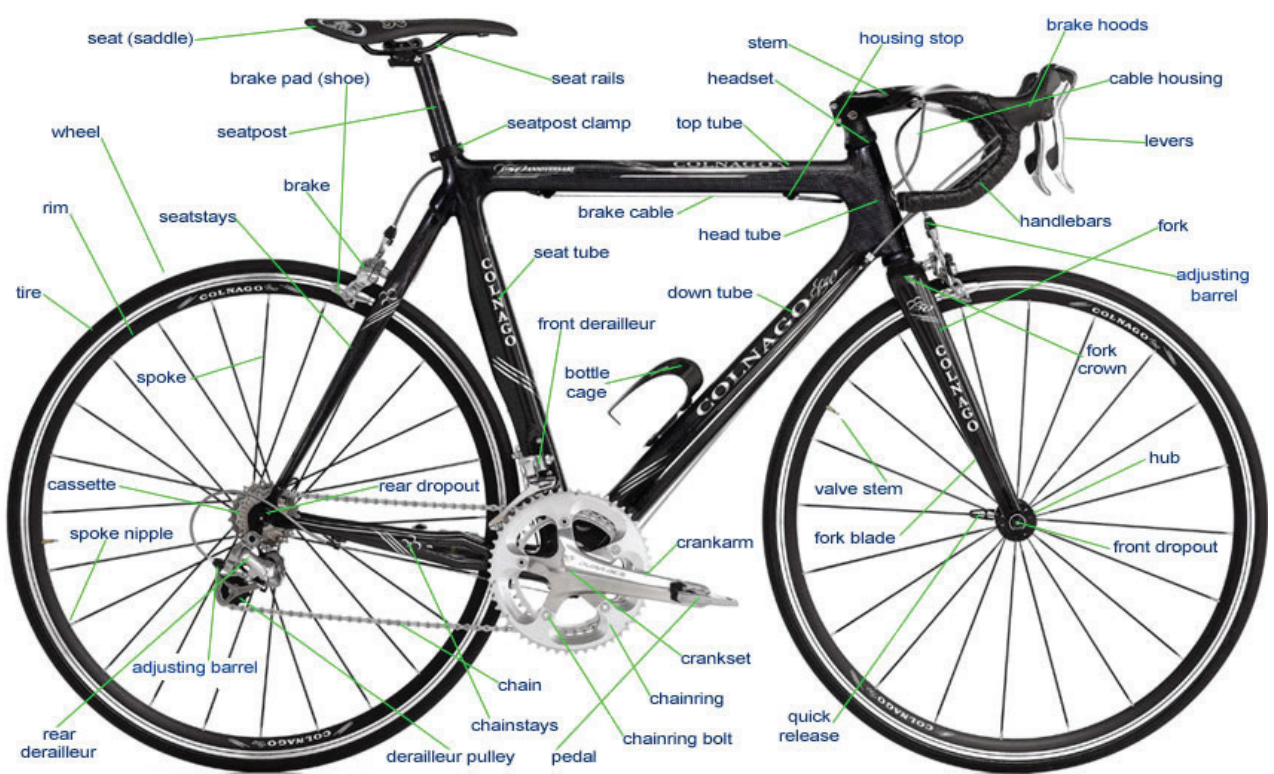


**ACTION
FOR A-T**

**FUNDING
RESEARCH,
FINDING HOPE**



**Training Guide:
Cycling**



CYCLING TRAINING

So you've taken on a cycling challenge for Action For A-T.

We at Action For A-T are delighted that you have chosen our charity to fundraise for.

The money that you raise will allow us to continue funding vital medical research to find a cure or a treatment that will delay the disabling effects of A-T.

A training program must consider many factors: gender, age, strengths, weaknesses, objectives, available time and training facilities etc. As all athletes have different needs, a single program suitable for all athletes is not possible.

We would like to help you complete your challenge and have designed some general plans and advice to help you along your journey.

CHOOSING A BIKE.

Take a trip down to your local bike shop and ask as many questions as you can. Don't be compelled to buy. If you want to ask any other specific questions please don't hesitate to contact me.

There is a lot of choice when it comes to buying a bike. To help narrow the choice down make sure you can describe what you want to do with your bike. Different bikes are intended for different types of riding. Some are very specific and others more versatile.

Set your budget

There is so much variety and choice. But get advice and don't get carried away with your budget. Stick to it. You can get bikes that cost less, but they're almost always poor quality

Get the right Size

Make sure you get the frame size which is right for you. The frame size is measured as the length of the seat tube. (The part where the saddle is mounted)

As the frame size increases so does its length, so getting a frame too small or large can be very uncomfortable.

Aluminium or carbon

One of the key considerations when purchasing a new bike is whether to choose an aluminium or a carbon fibre frame.

Consider the advantages and disadvantages of each material.

Choose your gears (groupset)

Once you choose a groupset manufacturer, it's important to stick to that groupset or you'll run into compatibility problems.

Do some research so that you understand the individual bike components and their functions

TAKE A TEST RIDE

When it comes to testing it out, there's no substitute for a spin round the block or car park to get a feel for the fit and handling of your potential new bike.

Make sure the bike shop shows you how the gears work, and then take the time to get familiar with them. Find a flat, traffic-free spot like a car park and click your way up and down the gear range. You'll probably find the lowest gears feel far too easy on the flat. That's how it should be – you'll be glad you have them when you're tackling a hill.

Alternatives: Second-hand and internet shops.

Bike Maintenance (Ensure that your bike is roadworthy. If in doubt, have it serviced or checked)

- Tyres must be in good condition, (no cuts or lacerations) and inflated correctly.
- Brake and gear cables should be free from rust and not frayed. Brake pads should not be excessively worn. (Remember the left brake lever should work the back brake and the right lever the front brake)
- Seat and headset clamps should be tightened to avoid movement.
- The chain should be in good condition and not worn. Lubricate regularly
- Ensure your gears work properly.
- Your wheels should run straight with no cracking or grinding noises.

CYCLING ESSENTIALS

For You:

Cycle helmet
padded cycling shorts
Cycle jersey with pockets
Cycle mitts
Cycling shoes/trainers
Sunglasses
Leggings
Waterproof jacket
Chamois cream or similar (Vaseline).

For your bike:

Water bottles
spare inner tubes x 2
Puncture repair kit
Reliable pump
Tyre levers x 3
Pocket tools
Cycle computer- recommended
Lights – recommended.

Getting started

The plan works by gradually increasing your weekly time. You should make every 4th week an easier one to allow your body to adapt and muscles to recover.

Midweek rides are shorter and can be done at a slightly quicker pace, though still at that nice endurance intensity, with a longer ride at the weekend to work on your ability to just keep going.

Keep these efforts steady, remember it doesn't matter how quick you get there, just that you get there.

Don't worry if you miss the odd session, what matters is that you keep that week-in-week out consistency going, as that's what gets results. There will be times when the training feels like a chore and it all seems like too much. But persevere.

Over time. Your pedal stroke will become more efficient and you will see improvement with every ride.

The plan's aim is to get you to the start line feeling confident.

Cycling is low impact and once you develop a good level of endurance and provide your body with adequate fuel you will keep going and going.

Start your rides very gradually to allow your muscles to slowly warm up and become supple to avoid risk injury.

At the end of your ride, a few simple stretches will help avoid stiffness the next day; hamstrings, quadriceps, calves and lower back should be the focus of your stretching routine.

Initially you should look to ride on flat, quiet roads as you get used to the bike and its handling without the distractions of too much traffic. As you get more confident, you can start to vary the terrain.

Work at an intensity that feels challenging enough so that you are starting to breathe a little heavier and you feel pleasantly warm. It is important, however, that you feel you can sustain the effort for the duration of your ride.

Avoid riding so hard that you are out of breath. A good way of checking that you are at the right level of intensity is to make sure you are capable of having a conversation.

Please note:

- Interval sessions are periods of faster and slower pace at pre-determined times or distances.
- Fartlek sessions are random and varied. Vary pace, resistance and intensity. Attack some hills and flat sections.

Spin sessions are great for your fartlek and interval sessions. Try to reduce the intensity of the sprint efforts. Have a higher intensity for the active recoveries.

Training plans

Beginner Plan

If you can only cycle 3 times per week. Remove the Tuesday session and replace with the Saturday session

Week	Phase	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
1	Base		1 hr		1 hr		1 hr	1 hr	5 hrs
2	Base		1 hr		1 hr		1 hr	1.5 hr	4.5 hrs
3	Base		1 hr		1 hr		1.5 hrs	1.5 hrs	5 hrs
4	Base (easy)		1 hr		1 hr		1 hr	1 hr	4 hrs
5	Strength		1 hr hils		1 hr fartlek		1.5 hrs	2 hrs	5.5 hrs
6	Strength		1 hr hils		1 hr fartlek		2 hrs	2 hrs	6 hrs
7	Strength		1.25 hrs hils		1.25 hrs fartlek		2 hrs	2.5 hrs	7 hrs
8	Strength (easy)		1 hr timetrial		1 hr fartlek		1.5 hrs	2 hrs	5.5 hrs
9	Speed		1 hr		1.25 hrs interval		2.5 hrs	3 hrs	7.75 hrs
10	Speed		1.5 hrs		1.5 hrs interval		2 hrs	3.5 hrs	8.5 hrs
11	Speed		1.5 hrs		1.5 hrs interval		2 hrs	4 hrs	9 hrs
12	Speed (easy)		1.5 hr		1 hr timetrial			4.5 hrs	6.5 hrs
13	Peak		1.5 hrs		1.5 hrs		3 hrs	4.5 hrs	10.5 hrs
14	Peak		1.5 hrs		1.5 hrs		3 hrs	5 hrs	11 hrs
15	Taper		1.25 hrs		1.25 hrs		2 hrs	3 hrs	6.5 hrs
16	Race		1 hr		1 hr		1 hr		

Intermediate plan

Week	Phase	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
1	Base	1 hr	1 hr	Core	1 hr		1 hr	1 hr	4 hrs
2	Base		1 hr		1 hr		1 hr	1.5 hr	4.5 hrs
3	Base		1 hr	4 easy	1 hr		1.5 hrs	2 hrs	5.5 hrs
4	Base (easy)		1 hr		1 hr		1 hr	1 hr	4 hrs
5	Strength		1 hr Hils		1 hr fartlek		1.5 hrs	2 hrs	5.5 hrs
6	Strength		1 hr Hils		1 hr fartlek		2 hrs	2.5 hrs	6.5 hrs
7	Strength		1.25 hrs Hils		1.25 hrs fartlek		2 hrs	2.5 hrs	7 hrs
8	Strength (easy)		1 hr Timetrial		1 hr fartlek		1.5 hrs	2 hrs	5.5 hrs
9	Speed		1 hr	1 hr interval	1 hr interval		2.5 hrs	3 hrs	8.5 hrs
10	Speed		1.5 hrs	1 hr interval	1 hr interval		2 hrs	3.5 hrs	9 hrs
11	Speed		1.5 hrs	1 hr interval	1 hr interval		2 hrs	4 hrs	9.5 hrs
12	Speed (easy)		1.5 hr	1 hr timetrial	1 hr easy			4.5 hrs	8 hrs
13	Peak		1.5 hrs		1.5 hrs		3 hrs	4.5 hrs	10.5 hrs
14	Peak		1.5 hrs		1.5 hrs		3 hrs	5 hrs	11 hrs
15	Taper		1.25 hrs		1.25 hrs		2 hrs	3 hrs	6.5 hrs
16	Race		1 hr		1 hr		1 hr		

Expert plan

Week	Phase	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
1	Base	1 hr	1 hr	1 hr	1 hr		1 hr	1 hr	5 hrs
2	Base	1 hr	1 hr		1 hr		2 hrs	3 hrs	8 hrs
3	Base	1 hr	1 hr	2 hrs	1 hr		2 hrs	2 hrs	9 hrs
4	Base (easy)		1 hr	1 hr	1 hr			2 hrs	5 hrs
5	Strength	1 hr	1.5 hrs Hils		1 hr fartlek		2 hrs	3 hrs	8.5 hrs
6	Strength	1 hr	1.5 hrs Hils	1 hr	1.5 hrs fartlek		2.5 hrs	3.5 hrs	11 hrs
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11	Speed		1 hr interval	1 hr fartlek	1 hr interval		2.5 hrs	3 hrs	8.5 hrs
12	Speed (easy)		1.5 hr	1 hr timetrial	1.5 hrs interval			4.5 hrs	8.5 hrs
13	Peak	1 hr	2 hr	1.5 hrs	2 hrs		3 hrs	4.5 hrs	14 hrs
14	Peak	1 hr	2 hrs	1.5 hrs	2 hrs		3 hrw	5 hrs	14.5 hrs
15	Taper		1.5 hrs		1.5 hrs		2 hrs	3 hrs	8 hrs
16	Race		1 hr		1 hr		1 hr		

BREAKFAST BEFORE TRAINING RIDES

What you eat when you wake will make or break the rest of your day

Breakfast does more than simply provide the day's first dose of calories. It also kick-starts your metabolism, regulates your weight, supercharges your riding—and can even lower your risk for heart disease and diabetes.

Moderately paced commute

On days when your slow-to-moderate rides are sandwiched around an eight-hour desk session, avoid fast-burning fuel. Instead, reach for protein, healthy fats, and high-fiber veggies, fruits, and grains, which will keep hunger at bay until lunchtime.

Try: Scrambled eggs with vegetables, mixed berries, and a slice of high-fiber toast with nut butter

High-intensity race or ride

Your body will be left with little energy for digestion. Two hours pre-ride, eat a low-fiber breakfast with a small amount of protein plus fast-release fuels, which clear your system quickly.

Try: A piece of toast and a smoothie made with berries, banana, and plain yogurt

Long ride

Long rides call for the slow-release energy offered by protein and whole grains.

Try: An egg burrito with sweet potato, spinach, and salsa. Doing a multiday ride? Include water-dense fruits for hydration and anti-inflammatory foods such as walnuts and berries, which help repair muscle tissue and alleviate soreness

Weekend group ride

A two- to three-hour weekend ride on flat and rolling roads will burn through most of your energy stores, so eating a carb-rich breakfast is essential. Pair grains with fruit. You can digest more carbs per hour if they're from mixed sources.”

Try: Oatmeal (not instant) with milk, berries, and banana

Refuelling whilst riding

During the course of a bike ride, your body will require fuel.

Test and develop a nutritional strategy that works for you. A rough guide is to eat 1g of carbohydrate a minute.

This will ensure a steady delivery of energy to your muscles.

There are many energy bars available which contain a concentrated source of carbohydrates, proteins, vitamins, and minerals. These are easy to carry in your back pockets during your ride. They do work, just find one that suits your tastes.

Fluids are also important. Increasing your intake of fluids is essential, as you will lose substantial amounts as you Cycle. Simply drink more. You can also increase your energy levels through intake of an isotonic drink.

Homemade Isotonic Drink

(1/2 water, 1/2 fruit juice sprinkle of salt)

If you intend to use these on the challenge, it is a good idea to get your body used to them in training.

During your training rides don't avoid hills! You should tackle a variety of terrain during training which will prepare you for the ride. By tackling different terrain you will be able to find out more about what you are capable of and also how best to use the gears on your bike. If you are limited for time consider riding a hill near to you several times, it can be very effective.

Always take time to think about the conditions in which you will be riding and prepare for them accordingly.

In hot, sunny weather, you should be using sun block.

In cold conditions, consider investing in a quality thermal cycling top, to keep you warm and comfortable.

A lightweight waterproof for wet weather is essential, without one you will soon become very cold and very miserable!

Arm and leg warmers are a good investment as these can be taken off very easily during the ride, ideal when there is a chill in the air.

A mobile phone is recommended just in case you get into difficulty.

- **Never ride more than two abreast.**
- **Single track roads – single file.**
- **Keep a safe distance between you and the rider in front.**
- **When turning right, check behind you and make your intentions clear.**
- **Make yourself visible to other road users.**
- **Ride out from the kerb to avoid drains and potholes.**
- **Wear high viz clothing in poor weather.**
- **Obey the Highway Code.**

My final tips:

Avoid the temptation to eat an energy bar or gel in one go, as it will cause blood sugar level highs and lows.

I like to carry jelly babies and broken jelly cubes as an alternative to gels

Don't underestimate how good a banana is. Again, don't eat it all in one go.

Vary your gear selection don't struggle in high gears. Aim for around 90-95 RPM. (The number of pedal rotations per minute)

Don't feel tempted to race down the hills. Use these as a recovery.

Practice in wet conditions and reduce your tyre pressures slightly.

Sleep is hugely important. Don't underestimate the power of recovery

Flat coke towards the end of a ride will get you through to the end.

I will reiterate. Check weather conditions for each ride.

Finally....

Type your emergency contact details under ICE (in case of emergency) in your mobile phone.

Consider getting insurance.

Good luck

I can be contacted at chris.stanton@actionforAT.org for any questions.

Also attached is reference to the best core exercises for cyclists. Try to perform these at least twice a week.

If you want to follow a workout. Please download my App on the iTunes Store. Abs Buddy

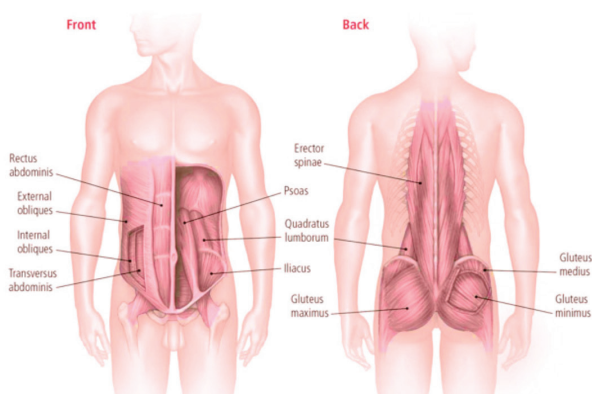
Please email me for the link.

Core - Training for Cyclists

A strong core will reduce upper body movement so that all your energy provides a smooth and powerful pedal stroke. Despite the straightforward motion of the bike, your body moves in three directions: forward as you head down the road, vertically as your legs pedal up and down, and laterally as your hips and upper body rock side to side.

You can have all the leg strength in the world, but without a stable core you won't be able to use it efficiently

Do you find that your lower back arches and you become unstable in the saddle long before you feel fatigue in the legs?

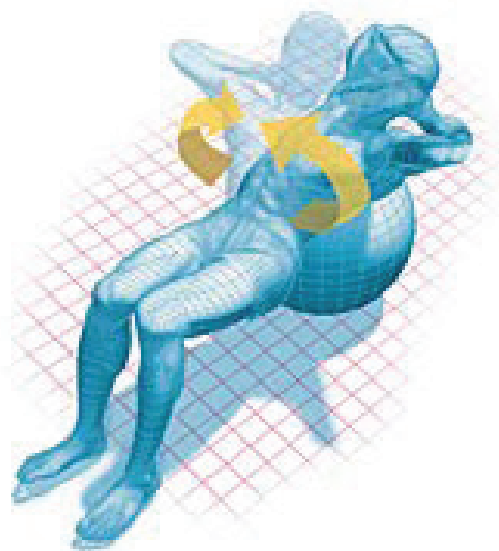


The Rectus Abdominis (six-pack muscle) is the least-functional muscle for cycling. So we will focus on the other muscles for better functionality and cohesion.

Follow these exercises, three times a week to create a core that lets you ride faster, longer, more powerfully-and finish stronger than ever.

1. Stability Ball Crunch

Muscles Worked: Transverse abdominus, obliques, lower back



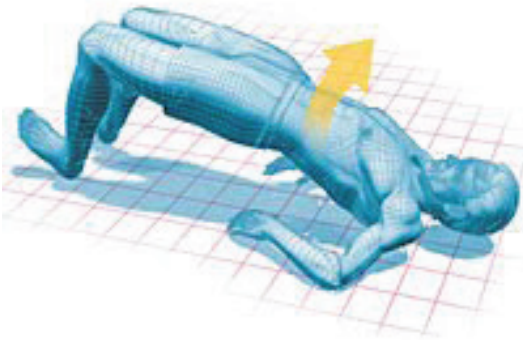
- Lie with the middle of your back on a stability ball
- Keep your knees bent at 90 degrees and your feet flat on the floor.
- Place your finger tips behind your head
- Lift your shoulders towards the ceiling.
- Hold and circle your torso clockwise.
- Keep the ball stable throughout.

Aim: 15 rotations and REPEAT the other side

Why It Works: It builds control and minimizes wasted movement.

2. Glute Bridge

Muscles worked: Hip flexors, glutes, lower back



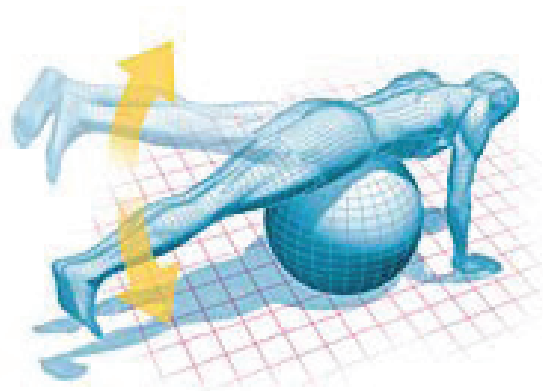
- Lie on your back in a crunch position.
- Arms by your sides, palms down.
- In one smooth motion, squeeze your glutes, raise your hips off the floor to form a straight line from shoulders to knees
- Lower yourself three-quarters of the way to complete one rep.

Aim: 20 reps

Why It Works: In addition to stretching the hip flexors, often extremely stiff in cyclists, the bridge strengthens the link between your lower back and glutes.

3. Hip Extension

Muscles Worked: Lower back, hamstrings, glutes



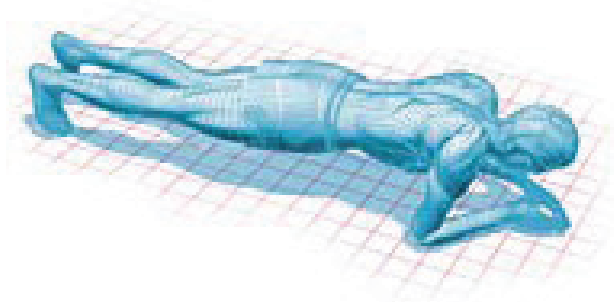
- Lying with your hips and stomach on the stability ball, put your hands on the floor directly under your shoulders, and extend your legs with toes resting on the floor.
- With a straight spine and shoulder blades back, lift both legs off the floor, keeping them straight. If possible, raise them slightly higher than parallel to the floor. Lower and repeat

Aim: 20 reps.

Why It Works: This movement builds glute strength, for added efficiency on the second half of the pedal stroke.

4. Plank

What It Works: Transverse abdominus, upper and lower back



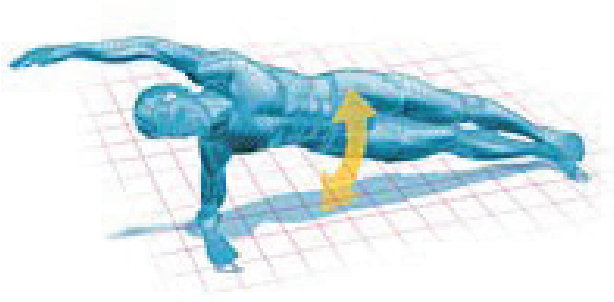
- Lying on your stomach, place your elbows under your shoulders with forearms and hands on the floor.
- Lift your hips off the floor, keeping your back straight and abs tight, and rest on your toes.

Aim: 60 seconds.

Why It Works: The plank builds the strength and muscular endurance you need to ride powerfully in an aero position.

5. Side Plank Ups

What It Works: Transverse abdominus and obliques



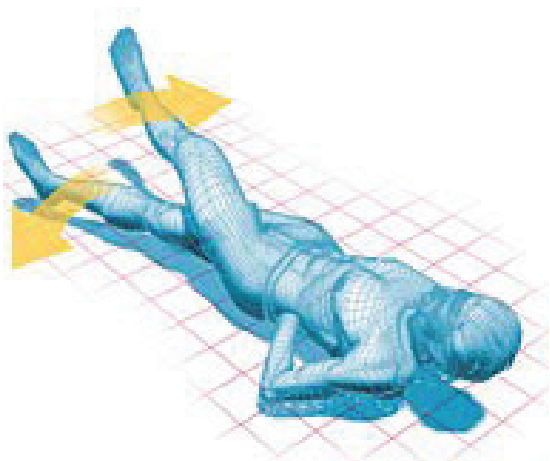
- Lie on your right side, with your right elbow under your shoulder, forearm in front for stability, and stack your left foot on your right. Raise your left arm over your head. Make sure you can see the palm of your hand to stop over rotation.
- In one motion, lift your hips to create a straight line down your left side. Lower your hips a few inches off the floor.

Aim: 10 to 15 reps, alternate sides

Why It Works: Strong obliques improve your stability in the saddle, helping you to take corners at higher speeds.

6. Criss cross

What It Works: Transverse Abdominus, hip flexors, inner and outer thighs



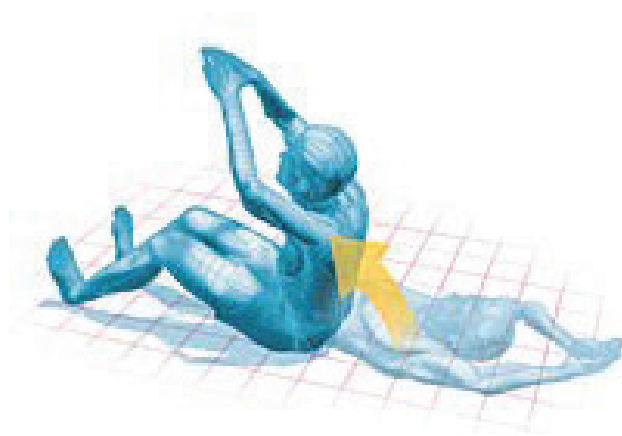
- Lie on your back with legs straight, place both hands palms down under your lower back.
- Raise your shoulders off the floor and look towards the ceiling.
- Raise your legs 4 inches off the ground and scissor them: left leg over right, then right over left. That's one rep.

Aim: 100 reps

Why It Works: It connects key cycling muscles which helps you achieve hip, knee & forefoot alignment for a proper and efficient pedal stroke

7. Negative sit-up

What It Works: Entire core



- Sitting with a slight bend in your knees, press your heels against the floor. Extend arms to the front at shoulder height, palms facing each other.
- With a straight spine and eyeline towards the ceiling, slowly lower your torso to the floor over five counts.
- In one smooth movement, leading with the arms, explode back to the starting position.

Aim: 20 reps.

Why It Works: It encourages control.

8. V-hold

What It Works: Transverse abdominus, lower back



- Sit, resting both hands lightly behind you, and lean back until your torso is at a 45-degree angle.
- Keeping your legs together, lift them off the floor as you extend arms forward at shoulder height.
- If your hamstrings are tight, you'll need to bend your knees a little.

Aim: Work up to holding for 60 seconds.