

# CYCLOPEDIA

Questions answered, subjects explained – Cyclopedia is your bimonthly cycling reference guide

Right: Alamy



A knee replacement shouldn't keep you off the bike too long

Right: Robert Sparring



Clean and degrease or just wipe off excess oil?

## Q & A

### Health

#### New knee trouble

**Q** I had a total knee replacement in my left leg ten weeks ago. I can pedal a cheap bicycle exercise machine with short cranks. On my Raleigh Pioneer, I cannot pedal at all. I am keen to get back cycling.

**Keiron Curtis**

**A** A good recovery from joint replacement takes effort. You should have some supervision from a physiotherapist who understands your goals. Around a month after surgery you can use a static bike on low resistance. Pedalling backwards initially will help you regain the full range of movement.

Once you can flex the knee more than 90 degrees you should have a smooth rotation. You will then need to build up power in your muscles, which will have wasted during the time of inactivity. This needs *gradually* increased resistance, and it may be this is why you find your road bike hard to pedal.

It's unlikely that your cranks are now too long. My hunch is that you haven't built up enough strength yet and need to work harder indoors before you venture outside. You might try an e-bike or ride only level routes for a while.

Keep at it! It will probably take several months.

**Dr Kate Brodie**

### Your Experts



**DR KATE BRODIE**  
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### Technical

#### An unclean chain

**Q** On my 8-speed commuter bike I use wet lube. Apart from wiping the chain after oiling, I rarely bother to clean it – saving time and resources. I realise I am sacrificing wear but the chain costs only £6 and I don't ride off-road. Is it only worth regular cleaning if you have an expensive drivetrain?

**Mark James**

**A** 'Worth' in this context is arguably more of a philosophical than a practical discussion. There are numerous reasons to clean a chain, from maximising its service life through to the pleasure of riding with a clean, well-maintained transmission. The latter is more efficient than if dirty and/or poorly-lubricated, and less likely to leave an indelible mark if it touches clothing or upholstery, neither of which may matter for a commuting bike that never sees the inside of a car.

Whether it's worth spending much time on cleaning a chain in the hope of saving money by extending its life will depend on how you value that time. It's easy enough to spend several hours on cleaning a chain that runs for a couple of thousand miles. Clearly this will vary depending on the replacement cost of the chain – and the chainrings and sprockets, which tend to wear with it. Perhaps paradoxically, I clean the transmission on my 'fast' road bike, which rarely gets ridden in the rain, much more frequently than on either of my commuting machines, which are used in all weathers.

**Richard Hallett**

### Coronavirus

For up-to-date cyclists' advice regarding Covid-19, visit: [cyclinguk.org/coronavirus](http://cyclinguk.org/coronavirus)



## Legal

# Pothole inaction

**Q** An overtaking driver forced me to ride over this pothole. I reported it on the highway authority's website but was told that it is not at a level which it is causing a safety issue for users. As such they would not be carrying out immediate repairs. Is the safety of cyclists not considered?

*Danfoto, via the Cycling UK Forum*

**A** Under s.41(1) of the Highways Act 1980, the highway authority – the county council in this case – has a duty to 'maintain' the public highway. The highway authority also has a common law duty to repair defects when the 'fabric' of the road is disrupted or disturbed. The road is required to be repaired to a condition that is reasonably passable for ordinary traffic.

While there is a national level that is to be adhered to, each highway authority has guidelines for best practice when maintaining the roads. These will determine at what point a road is considered to be in a 'dangerous condition' which requires maintenance, how often roads are inspected, and how quickly repairs should happen.

While the pothole that you reported may be considered by the highway authority as an inconvenience for cyclists, it seems that they consider that the defect is not significant enough to prevent the ordinary passing of all traffic without danger. If an accident were to occur, whether or not it should have been repaired would be a matter for the court to decide.

You can report the pothole using Cycling UK's Fill that Hole app or website ([fillthathole.org.uk](http://fillthathole.org.uk)).

**Richard Gaffney**

## Technical

# Gravel bike conversion

**Q** I have a Thorn XTC 26in touring bike with a flat handlebar, cantilever brakes, and a 3×9 Shimano SLX/Deore drivetrain. I want to change this to a 1×10 or 1×11 setup for a little off-road gravel riding, some light touring, and occasional road rides. Any advice would be much appreciated.

*Phil Allen*

**A** Given the cost of replacement, and also that the existing transmission is suitable for your riding goals, you might ask yourself what advantage you expect the 1× transmission to offer. In addition to the crankset, rear mech, and cassette you'll also need a shifter and possibly new bottom bracket bearings. Then, if you do opt for the 1× setup, you need to ensure it gives you a gearing range wide enough for your requirements.

**Richard Hallett**

**Dan Joyce adds:** See also Sam Jones's repurposed (but still 3×9) Surly tourer on p35. But if you do decide to make the switch, I'd suggest 1×9 Microshift Advent ([cyclinguk.org/cycle-magazine/review-microshift-advent](http://cyclinguk.org/cycle-magazine/review-microshift-advent)) as it's inexpensive and works well. You'll need: CS-H093 cassette (£30), the SL-M9195-R trigger shifter (£20), and the RD-M6195M derailleur (£50). You'll also need a 104BCD narrow-wide chainring; try 36t. Prices range from under a tenner (eBay) to around £35-£45 (RaceFace, Hope, etc). Your existing chain will work if it's in reasonable condition.



Microshift Advent: one of the cheapest 1× options

Pedals with pins help keep feet in place but beware bare shins



## Technical

# Grippy pedals

**Q** At 85, I cannot ride at present because I cannot keep my feet on the pedals. They slide sideways off the pedals. I have had a foot disorder since birth, which prevents me from wearing cycling shoes with cleats. I have tried Restrap pedal straps but cannot get my feet off the pedals quickly enough when stopping. Can you suggest an alternative?

*David Webb*

**A** The simplest answer is to find a pair of pedals with a grippy surface that will locate the shoe sole securely, such as the DMR V12 pictured (in white to show the pins better, but other colours are available). These provide a large, supportive pedalling platform suitable for almost any shoe, although the pins that provide the grip can inflict injury in the event of slippage.

Another possibility is to attach a large diameter washer or similar to the outside edge of a pedal wide enough for the sole of the shoe, so that the washer projects upwards from the pedal surface in such a way as to prevent the shoe sliding off sideways. This should be readily achieved at low cost using inexpensive pedals such as ETC's Resin MTB design.

**Richard Hallett**

## Get in touch

**EMAIL** your technical, health, or legal questions to [editor@cyclinguk.org](mailto:editor@cyclinguk.org) or write to Cyclopedia, Cycle, PO Box 313, Scarborough, YO12 6WZ. We regret that Cycle magazine cannot answer unpublished queries. But don't forget that Cycling UK operates a free-to-members advice line for personal injury claims, **TEL: 0330 107 1789**.