

Expert advice

Q&A

YOUR TECHNICAL, LEGAL, AND HEALTH QUESTIONS ANSWERED. **THIS ISSUE:** CYCLING ANXIETY, REG HARRIS'S CHAIN, HELMET COMPULSION, AND MORE



Anxiety needn't be related to risk



Left: Steve Ball / Alamy

MEET THE EXPERTS



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Health

DISTRESS SIGNALS

Q I have been a cyclist for over 40 years and a Cycling UK member for many of them. Cycling is central to my life. Nine months ago, I fell off my bike in high winds. Other than a sprained wrist, I wasn't injured. Yet it has caused me to lose my cycling confidence. I have cycled since but I have had long periods when I'm scared to even get on the bike. I've tried hypnosis, visualisation, etc but I still feel as though I'm suffering a panic attack or phobia.

Kate Fox

A Having a fall can significantly affect one's confidence. Sometimes the effect may seem disproportionate to the severity of the fall, or the physical injuries sustained. It might result in any of us doubting ourselves and our abilities. All sorts of 'what if...' scenarios fill our minds. 'What if it happens

again?' or 'What if next time it's worse?'. Our minds can lead us to catastrophise, and the more we dwell on this, the more real it becomes. Anxiety results in mental and physical tension and fatigue which can make us more likely to make a mistake.

How to break this vicious circle? As you've discovered, it can be difficult, but the quicker you can get back on the bike, the better. Avoidance fuels anxiety. To start with, the doubts may try to overwhelm you. Learn to ignore them and try to maintain your focus. You will need to tolerate some anxiety but build up in stages, starting with easier situations which induce less fear, then move on to more difficult or technical riding as your confidence improves. If necessary, look for some local cycle coaching.

In some people, the problem may be part of a wider anxiety or panic disorder. Consider more structured CBT (cognitive behavioural therapy) which can be done with a therapist (either NHS or private – see babcp.com for a list of accredited private therapists) or through self-help books. Some useful books are available through the Reading Well scheme

in libraries (reading-well.org.uk). You could also talk to your GP about treatment options.

However hard it seems, you will get there in the end, so please don't give up.

Matt Brooks

Technical MISSING TEETH

Q In Wollaton Hall Industrial Museum, Nottingham, there's a Raleigh bike that was built for Reg Harris in 1951. The chaining is unusual as it seems to be a skip-tooth ring. It must have worked all right for Reg to become champion. Was it ever copied by any other maker?

David Coupland

A Right up until the 1960s, the one-inch block chain was preferred over the conventional roller chain by top track sprinters, including Reg Harris, for its perceived rigidity, which was thought to better suit explosive efforts. The design of the block chain precedes that of the roller chain and comprises a series of figure-of-eight-shaped solid blocks with rounded ends joined by



Block chains aren't used now

paired plates. The chainwheel teeth sit between the plates and bear against the faces of the blocks rather than acting through rollers, giving a more direct force transfer.

Where there's a block, the chainwheel tooth is missing, so the pitch of one inch refers to the distance between teeth centres and, therefore, between block faces for the teeth. There are, in fact, as many pivots as with a 1/2" roller chain of the same length.

Several reasons for the demise of the block chain are put forward in a comprehensive article on the Classic Lightweights website (classiclighweights.co.uk/extras/inch-pitch-block-chain), but two limitations – half as many tooth count options front and rear, limiting gear choice, and reduced smoothness and efficiency compared with a roller chain – were surely sufficient.

Richard Hallett

Technical LIGHTS, CAMERAS, ATTACHMENT



Some lights come with straps

Q Cameras and lights are popular helmet attachments but what is the best way of securing them? I am wary of adhesive pads as helmet shells made from polycarbonate are prone to stress cracking due to migration of chemicals from the adhesive. The good old favourite of cable ties makes the helmet very uncomfortable and the air vents are not always in the right place. Any other options?

Barry Culpin

A The other obvious way to attach a device to a helmet is to use a strap. Often one

will be provided with the light or camera, but suitable examples can be found online for as little as £1. Since straps are more voluminous than cable ties, it may be that using a strap will prove no better in terms of comfort.

Bear in mind that anything attached to a helmet needs to be able to snap free if you have an accident. An attachment that's immovable might snag the road or trail, jerking your head around, or even punch a hole in the helmet.

Richard Hallett

Legal EMPLOYER DEMANDS HELMETS

Q I know this is an emotive subject and I'm not interested in the arguments for the efficacy of bike helmets. Recently my boss sent an email stating that all employees and contractors must wear a helmet on their commute to and from work. Can this be enforced and does he have any rights to insist on this? jnaumann, via the Cycling UK Forum

A While The Highway Code (Rule 59) advises that a cycle helmet conforming to current legislation should be worn, there is no law making it mandatory.

Employers are required by law under The Health and Safety at Work etc. Act 1974 to take appropriate steps to ensure the health and safety of their employees and others who may be affected by their activities when at work. The issue would be whether or not 'cycle helmets' would fall within the definition of personal protective equipment under The Personal Protective Equipment at Work Regulations 1992 and be applicable to employees at work under the Health and Safety at Work Act.

Generally speaking, an employer is only liable for actions of his or her employees during their employment whilst in the conduct of their employment and during working hours. So in terms of travelling to and from work, an employer would not be liable for an employee's actions, and as such cannot make it mandatory or insist that their employees wear, in this case, helmets. There could be potential human rights issues, as forcing you to wear a helmet could be seen to infringe on your right to a private life.

However, your employer can still advise you to do so in the interest of general safety and wellbeing. In terms of enforcement, it would depend on a number of factors, such as: if they had provided you with the bicycles (e.g. work bicycles); or if it was stipulated in your contract of employment.

Of note, if you are involved in a no-fault accident that results in you suffering a head/brain injury, the defendant may seek a reduction in your damages on the basis that you failed to wear a cycle helmet.



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However, they would have to show that the injuries sustained would have been lessened or prevented by the wearing of a helmet.

Richard Gaffney

Technical GREASE GONE

Q The freehub of my four-month-old Scott Speedster failed recently, leaving no drive at all. When I took it to the dealer, he told me I had invalidated the warranty because I had sprayed the rear cassette and chain with GT85, which had driven the grease out of the hub bearing. Is this spray not to be used on drivetrains?

William Burgess

A GT85, like WD40, is effective at dissolving grease, but it is unlikely that simply over-spraying the cassette and chain with it will remove grease from the inside of what is usually a fairly well-sealed unit in such a short time period. It may be that the freehub was either faulty from the start or assembled with insufficient grease. If the freehub is of a design that absolutely should not be sprayed with such ubiquitous products, perhaps the dealer should have warned you before?

Richard Hallett



Technical SMALLER COMPACT REQUIRED

Q I need to change the Sram Rival 22 compact double chainset to

lower my bike's gearing for the Derbyshire hills and my arthritic knees. Can I swap it for a Sugino OX901D (44-30 or even 28), then just adjust the derailleur height? Is there a more economical smaller compact, preferably not a taper type? My frame is made by SAB and has an Italian bottom bracket thread.

John Moss

A Outboard-bearing cranksets able to take such small chainrings are sadly a rarity, so if you don't want to use square-taper cranks, which work perfectly well, then Sugino's offerings are the way to go. To install the Sugino crankset, you will need to replace your Truvativ GXP external bottom bracket bearings with Shimano Hollowtech II-type, which differ slightly. Standard Shimano Italian-threaded examples will work fine if you can't get suitable ones from Sugino. Otherwise the installation should prove straightforward provided the tail of the front mech cage does not foul the top of the chain stay when lowered. If you don't want to pay 901 money, the Sugino OX601D does the same job for 10-speed and costs around £100 less.

Richard Hallett

Technical TIME TO FORK OUT?

Q My commuter bike is fitted with the ubiquitous suspension fork. I understand such forks require regular servicing. Is this required for safety reasons as opposed to efficiency on trails etc? Does a budget fork have a safe working lifespan after which failure is possible? Can I replace it with a rigid fork and, if so, are

forks the same length as suspension forks readily available?

Derek Robertson

A Routine servicing will maintain correct operation and prolong the life of the mechanism, which will otherwise gradually deteriorate. A fork that isn't serviced is likely to simply seize, but it is impossible to answer your second query with any certainty; try contacting the manufacturer if you are doubtful. If fitting a replacement, you need to look for a 'suspension-corrected' fork made for the suspension travel of the fork you wish to replace. Measuring from axle centre to lower head bearing will help identify the correct size. Buying a rigid fork for a '29er' may get you a little extra length, if needed.

Richard Hallett

Technical TOO TIGHT CLEARANCE

Q I have a handbuilt Pennine cycle and have found that tyres have too high a profile for the gap between the rim and fork. At the moment, I have Continental Grand Prix (700x20-25) and they leave only a 2mm gap when fully inflated. I cycle on lanes heavily used by farmers with tractors. Mud becomes lodged between the top of the tyre and the fork and impedes progress. Other than major alterations to my frame, I think the only answer is a lower profile tyre. Can you suggest one?

Pam Ashton

A You mention Continental's Grand Prix tyre in a range of sizes but do not state which you are using. Unless you are on the narrowest size in the range, you can find more room by switching to a smaller one. If you are already riding 700x20C tyres, you will struggle to find tyres significantly lower (more than 1mm or so) from any manufacturer. If the problem is only with the fork, you could consider getting a replacement made with a bit more clearance; a few millimetres extra will not have a major effect on handling.

Richard Hallett



Contact the experts Email your technical, health, legal or policy questions to editor@cyclinguk.org or write to **Cycle Q&A, 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: **0844 736 8452**.