

peeled open by scrubbing against the road surface.

Cycle tyres don't experience scrubbing forces sufficient to cause this. Some tread patterns are designed to be directional, in that any water-displacing or grip-enhancing effect they provide is supposed to be dependent on the direction of rotation. While the effect is debatable on a cycle used on the road, off-road tyres should be used as indicated to maximise traction.

Richard Hallett

Health

Knee pain

Q I have been having a lot of problems with my knee, which had an ACL reconstruction in 2006. I've also had hamstring pain/tightness in this leg. An MRI showed a meniscal tear and also some inflammation of the hamstring. I wonder whether my new bike (bought in March) might be the culprit? I'm also a keen runner and the knee seems fine when running.

Robin Grimmer

A You don't say where in your knee the pain is located but in general knee problems arise from three related causes: change in equipment; change in training intensity; knee anatomy and function.

Avoiding knee problems is best done by not making drastic changes in training or in bike setup. Your new bike may well be causing issues. Consider a bike fit. Check the positions of your cleats, if you use them. Look after your legs by stretching large muscle groups after a ride or get a massage. Work on



Right: Alamy

core muscle strength as this will balance and protect the limb muscles from injury.

Your knee problem is complex, with previous surgery and a recent cartilage tear. Taking tailored advice from a physiotherapist would be wise. The site of knee pain is a strong clue as to the cause, and there are different strategies for anterior, posterior or lateral knee pain which address the underlying problem.

Dr Kate Brodie

Technical

Cracked head tube

Q I recently bought a lovely aluminium trekking bike with a suspension fork. Yesterday I was cleaning it and noticed a crack in the head tube. The crack starts at the bottom and continues upwards for maybe 3-4 cm. It is wider at the bottom and thinner, like a hair, at the top.

I rode the bike for a very short time before I saw the crack and I heard no creaking. Can I keep riding this bicycle? Is there anything I can do?

MsMellie, via the Cycling UK Forum

A If you ride the cycle as is, the head tube crack is likely to get longer and the tube may fail entirely without warning, with potentially fatal results.

It may be possible to weld up the crack, but if the frame uses a pressed-in head bearing cup the result is likely to be unsatisfactory. Pressed-in cups generate an expansion force on the head tube once fitted, and this bursting force is likely to have caused your crack. The inside of the head tube is accurately machined to size to provide the required force fit. (If the tube ends up even slightly oversized after welding, the cup will be loose and will quickly wear even looser.)

If, on the other hand, the frame has an integrated headset, where the cartridge bearings sit directly in the head tube in chamfered seats to provide location once the headset is tightened, the result may work as designed.

You'll need to find a local aluminium welder willing to do the job. Ask their advice on its feasibility.

Richard Hallett



Technical

Ghost puncture

Q I found my rear tyre flat today (road bike, 700x25C Schwalbe Lugano Endurance II tyre). I took it off and checked the tube thoroughly: not a puncture anywhere. Tyre likewise checked. The valve is okay. I put it back on, pumped it up, and it was still rock hard two hours later. Any ideas what might have caused that? The bike is kept indoors and no one else has access to it. I usually pump the tyre up to 80psi, which is below its recommended range of 95-115 psi. Could that have been a factor?

Martian Tom, via the Cycling UK Forum

A How long beforehand was the tyre known to be correctly inflated? Was it still 'rock hard' (you may wish to check your pump's gauge) three hours later rather than just two hours later? Did you remove and refit the valve core when checking it? A less-than-tight core can leak air quietly, and you may have inadvertently cured the problem simply by checking the valve.

Punctured tubes don't repair themselves, nor does under-inflation cause deflation. Which leaves sabotage; have you checked your door lock?

Richard Hallett

Get in touch

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