

Q & A

Your technical, legal and health questions answered.

This issue: cycling and prostate cancer; pannier choice; switching from 10-speed to 8 or 9; alcohol and cycling; and handlebar metal fatigue

QUESTION OF THE MONTH



● Like other forms of exercise, cycling can skew PSA readings taken shortly afterwards

Photo: Jim Brown

MEET THE EXPERTS



CHRIS JUDEN
Qualified engineer



DR MATT BROOKS
Cycling GP



PAUL KITSON
Partner from Slater & Gordon (UK) LLP

HEALTH

PROSTATE CANCER

Q I have prostate cancer and am monitored every six months by taking a PSA reading. It has varied from 6.2 to 8.1, except the last one when it shot up to 14.5. I am a cyclist, riding for three hours twice a week. Can this affect the PSA reading?
JAMES MILLER

PSA (prostate-specific antigen) is a protein produced by the prostate gland in men, a small gland in the pelvis between the penis and bladder. A raised PSA level may indicate infection or inflammation of the prostate (prostatitis), or prostate cancer. PSA is often used to monitor prostate cancer.

It is thought that significant amounts of vigorous physical activity, including cycling, may cause a rise in PSA for up

to 48 hours afterwards. The level can also be increased by sexual activity. It is therefore advisable that all of these should be avoided in the couple of days before a PSA blood test is taken. In addition, digital rectal examination (performed by doctors to examine the prostate gland) should not be carried out in the week before a PSA test. If an unexpectedly high reading is identified, it usually makes sense to repeat the test. So in your case if you cycled in the 48 hours before the PSA test, then it is possible that cycling has affected the reading. This result should be confirmed by repeating the test, as above.

The use of PSA as a diagnostic screening test for prostate cancer in people without any symptoms is controversial as the test cannot always reliably detect cases of prostate cancer. False positive and false negative results mean that some people without clinically significant prostate cancer will have a raised PSA requiring further investigation (e.g. biopsies) and sometimes treatment. These may be invasive and will cause

harm in some people, for example through complications. Meanwhile, others who have the condition will have a normal PSA and may be incorrectly reassured. Finally, in those found to have 'early' prostate cancer, we don't always know which cancers need to be treated aggressively and which can be safely monitored.

MATT BROOKS

TECHNICAL WHICH PANNIERS?

Q I'm going on my first tour abroad in summer and would like advice on panniers. Do you think 40 litres (i.e. 2x20) will be enough space? I will not be camping. I am considering Ortlieb roll-top rear panniers, which nearly all reviewers say are good. Do you have any views?
ROBIN ALCOCK

A Forty litres should be more than enough, but I would never be without a handlebar/shoulder bag on tour, for those valuable and often-wanted items,

Q & A



● Ortlieb Bike-Packer panniers are an ideal combination of convenience and weather resistance. Two front or universal panniers may be enough if you're not camping; otherwise, get two rear ones

that I never leave on the bike.

Ortlieb are the best, but Rollers are less convenient than the drawstring-and-hood Bike-Packer design, which is quicker to access and close, especially when you slip off a jacket and simply stuff it under the hood – which also keeps the contents separate from the damp jacket.

Whilst it is true that a roll-top makes the bag utterly watertight, so you can throw it in a river and it'll simply float, in all my tours I have never seen anyone do that! On a bike, water comes at a pannier mainly downwards and at worst horizontally; Bike-Packers will cope with that.

The one disadvantage of Ortlieb panniers is a lack of pockets for small things like tools you need in a hurry. I've added Ortlieb's (rather expensive) accessory pockets to my panniers. It seems drastic to make holes for the fittings, but they work fine and seal up perfectly – just like the all the holes the bag already has for the rivets and screws securing the rack hooks etc. onto its back.

CHRIS JUDEN

**TECHNICAL
TOO MANY SPEEDS**

Q I have a bike with Campagnolo 10-speed transmission on Khamsin wheels, but am experiencing very short chain life. Is there any way of changing to 7-speed without a new back wheel or freehub body? Campagnolo don't make components less than 10-speed!

COLUM QUINN

A Some people (actually, one person on the CTC Forum) report excellent longevity from Campagnolo 10-speed chain. This person, however, achieves that by cleaning their chain more often and thoroughly than most people would want to even if they had the time! So I think the general observation that

10-speed equipment wears out faster and costs more to keep on the road (than is sensible for everyday transport) holds true. So I sympathise with your wish to simplify to 7-speed. But I wouldn't go that far: 8-speed uses the same type of chain and will be easier to source quality parts for.

Unless you have suitable old 7- or 8-speed mechs and shifters, in good condition, this won't be a cheap exercise and will take a long time to pay for itself in less pricy chains. And unless you have old Campagnolo mechs and shifters, you had better switch to Shimano, because Campag haven't made anything 8-speed for ages. But here's a thing: your Campag 10-speed right-hand shifter and a Shimano 8-speed shifter both pull exactly the same amount of cable with each click. Swap the Campag rear mech for any decent 8 or 9-speed Shimano mech and fit a Shimano 8-speed cassette and you're all set. It should also be possible to fit a replacement Shimano HG-compatible freewheel body into a Khamsin freehub (provided it's pre-2014), but this part is (a) hard to find and (b) likely to cost more than two 10-speed chains.

Alternatively, you could switch to 9-speed and stick with Campagnolo. Campagnolo have pulled the plug on 9-speed too, but you can still get 9-speed Campag cassettes, which will fit your hub just as well as 10-speed. Your existing rear mech and shifters will probably do, once the indexing cam in the right-hand shifter has been replaced with the different part for 9-speed. This is a tricky operation, best performed by a Campag specialist such as Mercian Cycles in Derby. A simplification to 9-speed still provides access to cheaper chains.

CHRIS JUDEN



● Even Campagnolo Veloce is 10-speed these days. But you can still turn back the clock to 9- or 8-speed



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● Being 'incapable of having proper control of your bicycle' after drinking risks a fine of up to £1,000

LEGAL ALCOHOL & CYCLING

Q The legal limit of alcohol in the blood whilst driving was reduced in Scotland from the beginning of December, prompting me to seek clarification regarding cycling and alcohol. What does the law say?

RICHARD FREW

A The best advice is not to drink alcohol if you intend to cycle. Alcohol consumption affects reaction times, causes disinhibition and also an ability to properly manage, steer and control a bicycle. Research conducted for the Transport Research Laboratory in 2009, entitled 'Collisions Involving Pedal Cyclists on Britain's Roads: Establishing the Causes', revealed that intoxicated cyclists appear to be 10 times more at risk of injury than sober cyclists.

If you have had a drink, then there is a good chance that you will be committing a criminal offence by riding your bike. The charge would be for 'cycling under the influence of drink or drugs', and you would be guilty of this offence if you were unfit to ride through drink or drugs – that is to say, under the influence of drink or a drug to such an extent as to be incapable of having proper control of the cycle. You can commit this offence when cycling on footpaths, as well as on roads.

Perhaps surprisingly, a police officer has no power to require you to provide a breath, blood or urine sample. They are allowed to ask you, but if you refuse, and are subsequently charged with cycling under the influence, the Crown Prosecution Service would not be allowed to rely on your refusal as evidence.

Without any kind of sample, you may wonder what evidence could be used

against you at the Magistrates' Court. This would likely be the police officer's own testimony as to why they thought you were under the influence, e.g. you were slurring your words; you were cycling erratically; they could smell alcohol on your breath. If you were cycling erratically then there may also be CCTV evidence of this.

Even if the magistrates were not convinced that you were cycling under the influence of drink or drugs, if you were cycling in a dangerous, careless or inconsiderate way, then you run the risk of being convicted under one of these separate offences.

The maximum penalty for cycling under the influence of drink or drugs is a £1,000 fine, and this is also the case for the offence of careless or inconsiderate cycling. The maximum penalty for dangerous cycling is a £2,500 fine.

None of the offences mentioned in this answer allow for penalty points to be added to your driving licence, should you have one.

PAUL KITSON

TECHNICAL HANDLEBAR FATIGUE

Q The handlebar of my husband's bike recently broke, causing him to fall. The bike was little used and well cared for. We had it from new and the manufacturer agreed to pay compensation, but we were concerned that it could have been a serious accident. We have since been told that metal fatigue is a common problem with handlebars and they should be changed every three years. Is that right?

ROSEMARY EVANS

A Aluminium is a fatigue-prone material but metal fatigue is not a time-dependent phenomenon, so to recommend replacement of handlebars after so many years (or so few!) is nonsensical. What matters is how much they have been used, and how hard. Don't ride the bike and its handlebar will last forever. Or if a bike is ridden mainly on smooth roads, by a lightly-built person, who seldom stands on the pedals but sits and twiddles low gears uphill and is careful that his bike and particularly his handlebar never gets scratched, this component may likewise last indefinitely. But if it's ridden on rough roads by a broad-shouldered brute of a rider who likes to heave big gears uphill and doesn't take any special care of their

bike, the handlebar may endure only a few thousand miles. And that much punishment may well accumulate in only three years. So any limit, miles or years, is no better than a guess.

Any scratching of the handlebar, particularly near or coincident with the stem, must be avoided. Because a scratch is a ready-made crack, that focuses stress, which if repeatedly reversed (like when you bend an old credit card to and fro to weaken and tear it) will gradually grow through the metal, concentrating stress ever more strongly as it becomes deeper and wider until there's not enough unbroken material remaining and it snaps.

When handlebars are simply clamped in a traditional stem by one bolt, they sometimes have to be pushed hard and swivelled to and fro to persuade them through the tight-fitting clamp. Then it can be hard to avoid scratching them and failures are not uncommon. Some bars are formed into a bulge in the centre with another, shorter piece of tube inside to reinforce the centre. But sometimes this reinforcement can be misplaced, off-centre, and I recall a spate of breakages of one model of handlebar made like that.

Modern stems are mostly 'front opening', the front clamp being removable, so there's no risk of scratching a bar when fitting it or adjusting the angle, provided the bolts are loosened enough! But careless handling and ill-fitting metal brackets (for lamps etc.) can always scratch a bar. And it seems likely that manufacturers have taken advantage of the new, less-damaging method of clamping bars to stems, plus the move to 'oversize' clamp diameter, to reduce metal thickness and weight. This makes any slight damage more significant and reduces the handlebar's ability to shrug off small episodes of abuse. So take care of your handlebar.

CHRIS JUDEN



● A handlebar scratch near the stem can lead to total failure

Photo: saul mora (Flickr creative commons)

Contact the experts Email your technical, health and legal questions to editor@ctc.org.uk or write to CTC Q&A, PO Box 313, Scarborough, YO12 6WZ.

We regret that Cycle magazine cannot answer unpublished queries. But don't forget that CTC operates a free-to-members advice line for personal injury claims, tel: 0844 736 8452.