

# LETTERS

*This month CTC, the motoring organisation? High heart rate causes, a front derailleur fix, cycling on footpaths, and red hot disc rotors*



## A PETROL-DRIVEN PAST?

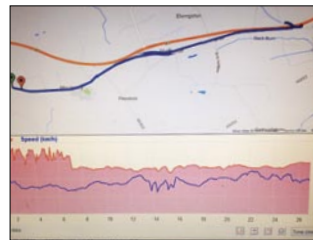
ON GOING through some old family documents recently, I came across this card from CTC dated 1912, issued to my grandfather. As it seems to be a permit for a motorcycle, I wonder whether it is the same CTC as your organisation (of which I am a member)? It would be interesting to learn if it is, and when motorcycles were no longer part of the current CTC. Maybe it was a separate club altogether? Thanks for any history you can uncover.

— Donald Low

*I think the 'motorcyclette' referred to is an early moped; I've seen a petrol-powered Douglas bike of that period that could be pedalled independently of the motor. I wasn't aware that CTC membership ever embraced mopeds but it wouldn't surprise me. There was a close association between bicycles and mopeds (and even motorcycles) in the late 19th and early 20th centuries. The Bicycle Association was originally The Cycle and Motorcycle Trades Association, while Cycling Weekly was once known as Cycling and Mopeds. In 1906, CTC Secretary Ernest Shipton proposed to open up CTC to motorists of all kinds, changing the name to The Touring Club to reflect this. A High Court judge ruled against it, even though the motion was passed at the CTC AGM, saying that it would be incompatible with protecting the interests of cyclists.*

*Note that while today's CTC membership does not cover petrol-powered cycles, it does cover electric-assist ones. Turn to page 66 for a review of two.*

● High HR readings can be due to a poor strap connection or the lack of a warm-up



### HEART RATE SPIKES

May I add a word to Dr Matt Brooks' advice to K Murison? I have spent a significant amount of time this year visiting GPs, cardiac suites and emergency departments and, in consequence, I have a keen interest in anything heart related. Having had stents fitted, and religiously following a regime of drugs (statins, beta blockers and anti-coagulants), I still got monitor readings way above normal, especially at the start of rides. These readings disappeared when I made sure that the pads on the chest strap were moistened and the strap was tightened a little. I also get high readings when passing my local TV dealer and sometimes when being passed by cars where the occupant may be on the phone.

— Keith Hunter

As a personal trainer, I feel I should comment on the answer given to K Murison about heart rate spikes. The 220-minus-age formula has no scientific basis. It is used by professionals as a safe guide when starting someone on an exercise regime and is inaccurate for people who maintain a regular fitness regime.

Mr Murison says he gets these spikes if he exercises without



### WRITE TO CYCLE

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warming up. This is probably a result of the heart having to work harder to compensate for the lack of a warm-up.

I also observed HR spikes over 200 in my mid-60s when running uphill. (My HR max at the time was about 180bpm.) Apart from feeling breathless, I didn't suffer but I did take action and reduced the intensity of my uphill running and got myself checked out. This indicated a slight valve flutter that's apparently common in people who train and is not serious. I recommend Mr Murison religiously warms up and, as a precaution, gets a proper MOT.

— Malcolm Knight

### STICK SHIFT

Riding home from work earlier this year, my mate's front gear cable snapped. As the route home is undulating, he wanted a full range of gears. With a little



● Broken derailleur cable? Get whittling! This is a three-position derailleur adjuster... ➤



▶ This path is a shared-use one; there's a sign out of sight. But what if there weren't?

Left: Sam Saunders (Flickr Creative Commons)

help from my Swiss Army knife, we improvised this fix using a tree branch and some string. No stick = small ring. Thin end of stick = middle ring. Thick end of stick = big ring. He used this for about a week before getting round to replacing the cable!

— **Robert German**

## PAVING THE WAY

It is time that the Highways Act was updated to reflect present-day cycling and road traffic conditions. It should no longer be an offence to cycle on footways and footpaths provided that certain conditions apply. Pedestrians should always have right of way and be treated with courtesy by cyclists. A cycle speed limit of, say, 10mph could be imposed to reduce cycle/pedestrian conflicts. It is safer to mix cyclists with pedestrians than cyclists with road vehicles.

I cycle on footways where I consider it too dangerous to ride on the carriageway. A fine is a lesser risk than serious injury. I normally cycle on the road but do what I can to minimise the risks. I choose my routes carefully and I have fitted all of my bikes with a rear view mirror so that I can constantly monitor traffic behind me. Even so, I still have the occasional near miss.

— **Russell Collins**

## RING OF FIRE

In the Oct/Nov issue, Richard Hallett mentions the danger of disc rotors heating up on road bikes. The amount by which the rotors heat up depends on the total amount of energy, measured

in Joules, that they absorb. Power is measured in Watts, and is the rate at which energy is produced or used up. One Watt is equal to one Joule per second (1W = 1J/s). I reworked Richard's calculation of an 80kg bike and rider braking from 60mph to 20mph in 3 seconds and get a figure of 25.58kJ of energy produced, equating to a power of 8.53kW. So I agree with Richard.

More interesting would be the total potential energy that such a cyclist would need to dissipate during a long descent – say, dropping 1,000 feet in altitude. For this I get a figure of 239kJ. If all of that 239kJ of energy were absorbed and retained by a pair of steel disc rotors weighing 280g (it isn't: energy is lost to wind resistance, rolling resistance and bearing friction, and the rotors are air-cooled), the temperature rise could be as high as 1,700 degrees Celsius! This would be enough to melt the metal. Even a small fraction of that would cause burning. So I'm with Richard: disc brakes are not recommended for road bikes or tourers.

— **Denis McAllister (retired physics teacher)**



▶ Prolonged braking can make disc rotors very hot, especially smaller rotors

## Obituaries

### ▶ **Emlyn Peacegood**

Died 27 July, aged 89. 'Bubbles', as she was known, was a lifelong and popular member of South Bucks CTC. When she was well into her third pregnancy, she cycled through the Glen Affric rough-stuff crossing alone, in a day. She was struck by partial paralysis in her legs in her 30s, but carried on cycling and tricycling into her eighties. — *Alan Peacegood*

### ▶ **Jeff Hall 1945-2015**

Jeff's love of cycling began when he left school and joined the Beds Road CC. Moving to the Midlands, he became a stalwart of the Wombourne and Kidderminster CTC sections. His other interests included photography, canal restoration, youth hostelling, and steam railways. — *Sandra Evans*

### ▶ **Reg Elliott 1934-2015**

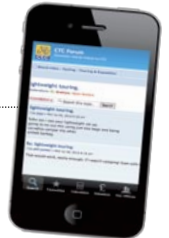
Died 27 June as a result of collision with a car when cycling. Previously Secretary of Coventry CTC, ex-Chair of the CTC Heart of England Group, and a member of Solihull CC and the Fellowship of Cycling Old Timers, he regularly rode 8-10,000 miles per year. He was awarded (jointly with wife Sheila) the CTC Certificate of Merit in 2010. — *John Bennett*

### ▶ **Peter Brake: 1934-2015**

Died 26/9/15 from cancer. A founder and former Chair of Pembrokeshire Freewheelers CTC, Peter served as CTC Councillor for Wales. He attended the CTC Birthday Rides for the last 25 years. Despite hip operations and prostate cancer he continued cycling, in 2015 touring from Bristol to Bournemouth and back on his electric bike. The Wednesday rides won't be the same. — *B Horswill & E Seaman*

## Join the conversation

Get immediate feedback from other CTC members on the CTC forum: [forum.ctc.org.uk](http://forum.ctc.org.uk). Here's an abridged extract from one popular thread before Cycle went to press (see [bit.ly/ctc-driverlesscars](http://bit.ly/ctc-driverlesscars))



### PROBLEM WITH DRIVERLESS CARS

**Mike Sales:** Interesting problem with Google car: [bit.ly/roadcc-googlecar](http://bit.ly/roadcc-googlecar).

Seems it is not pushy enough to share the road with human drivers. Is it being too careful? **[XAP]Bob:** They do the right thing when unsure – they slow/stop.

**Pete Owens:** The problem is the drivers hitting them failing to take care. Note that the cars were not at fault in any of the reported crashes.

**Bmblbzzz:** Google cars are

programmed to drive correctly, which means within the limits of their own sensory and decision making capacities.

Those sensory capacities are superior to humans, because they are not restricted to roughly 180 degrees of vision but use a full 360 of vision and other senses.

**irc:** Superior? In some ways yes, in some ways no. Humans can drive on roads which haven't been mapped in high detail. Humans can see potholes and avoid them. Humans can drive in rain

and snow. Humans can deal with a trackstanding cyclist and 4-way stops etc.

**kwackers:** Self-driving cars have enormous potential for improvement and from a pretty decent starting point too. Humans can't get better and potentially will get worse as their skills atrophy as they become more dependent on such cars to drive for them.

**brynpoeht:** Driving too slowly? The Highway Code shows a 'minimum speed limit' sign but I am not sure if I have ever seen one.



**Letters** are edited for space (if above 150 words), clarity and, if necessary, legality. Please note that if you have specific complaint or query about CTC policy, you should address it to your CTC Councillor or relevant national office staff member. Letters & emails for the April/May issue must arrive by 29 February. Write to: [editor@ctc.org.uk](mailto:editor@ctc.org.uk) or Cycle Letters, PO Box 313, Scarborough, YO12 6WZ



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