



GUIDE TO SAFER CYCLING



This booklet has been produced to help make cycling by staff (whether commuting, on official business or simply for pleasure) a safer and more enjoyable experience.

Cycling

Millions of people use bicycles every day as their main form of transport. Cycling helps to reduce the number of cars on the road and to improve health, boost physical activity and create a cleaner environment.

The following advice is to reduce the risk of injury through collisions when cycling. The main cause of cycling collisions is human error, either on the part of a cyclist or a motorist.

90% of collisions involving cyclists occur in urban areas
75% happen at, or near, a junction
80% occur in daylight
Around three quarters of cyclists killed have major head injuries

To reduce risks when cycling:

Do be familiar with and always apply the advice given in the [Highway Code](#), including the advice for all road users and the specific Cycling sections.

ALCOHOL & DRUGS

Do not drink alcohol and cycle - Alcohol will reduce co-ordination, slow down reactions and affect judgement of speed. Alcohol takes time to leave the body - you might still be unfit to ride the following morning. If you are going to drink, use public transport.

Do not cycle if you feel unwell or are taking drugs that may affect your cycling. Check the instructions on medicines to make sure that they won't affect your safety when cycling. If in doubt about the effect of drugs, ask your doctor or don't cycle.

CYCLING AT NIGHT AND IN ALL WEATHERS

Do be conspicuous - As well as being a legal requirement good lights are essential for safe cycling at night. A single front white and rear red light makes a cyclist clearly conspicuous and suggests a two-wheeled vehicle to approaching motorists. Extra lights on the cycle can be dangerous as they may confuse motorists into thinking it is a car much further away. Lights should point directly forward and back, be kept clean, and fixed where they can't be obscured. Mudguards will help prevent you as well as your lights getting dirty and don't forget to carry spare bulbs and batteries.

Some lights on sale use light-emitting diodes (LEDs) that give extended battery life. However, many of these may be unsuitable for cycles as they only provide a low light output and cannot be seen from the side. Some LEDs can also be set to flash intermittently - it is illegal to fit and use flashing lights on the cycle itself although they are acceptable on the rider.

Cycle reflectors and high visibility clothing help to make the cyclist more conspicuous but should never be used as a substitute for bright, effective lights. Perhaps the most effective reflectors are those fitted in pedals. When these are illuminated by following motorists they clearly indicate a peddling cyclist as they rise and fall.

Extreme weather conditions

Do not cycle in extreme weather conditions - Cycling is possible in all but the most severe weather but unless you're confident try to avoid extreme weather conditions.

Do be aware of the limitations of you and your bike in differing conditions and how they can affect the way you ride. Always allow extra time when the weather is bad as you will not be able to travel as quickly as normal. Slightly lower tyre pressure than normal can give better adhesion on slippery surfaces. But when conditions get too difficult, get off and walk.

Rain

Do allow additional time when braking in the rain or wet as cycle brakes work less well. In very heavy rain you may be quite unable to stop. In wet weather avoid fierce braking and periodically apply the brakes while riding along to keep the rims free of water. Be more cautious, especially down hill or when approaching bends or possible hazards.

Do be aware that roads are especially slippery after a dry spell as the water mixes with surface oil.

Wind

Do take extra care in high or gusting winds - Accurate steering becomes more difficult so kerbs and obstructions should be kept at a safe distance. The combination of wind and rain is worst of all and can make cycling extremely difficult. Be ready for sudden gusts from crosswinds and when coming out from behind the shelter of buildings, hedges, vehicles etc.

Do not allow a following wind to push you along too fast and remember that wind makes it more difficult to hear other traffic.

Snow, ice and cold weather

Do always wrap up well. Wear gloves but make sure they don't impede use of the brake levers.

From November till at least the end of March assume there will be ice after a cold night.

Do start out cautiously and be wary for icy patches, especially where the road dips or turns. Start, brake and corner gently; braking as little as possible. Keep both hands on the handlebars and peddle gently to keep stability. If you hit an ice patch avoid turning or braking until the other side. Fresh, light snow is relatively easy to travel over. However, the ridged ice that follows thawing and re-freezing can be extremely dangerous to negotiate.

Fog and mist

Do use your lights but allow for the fact that they may be much less effective than normal. As with rain your brakes may be much less effective.

Do keep your speed down in dense fog and listen for the movements of others.

Do not follow other vehicles too closely in case they brake suddenly.

Sun

Sunglasses and a helmet peak are useful accessories as bright or low sun can be blinding and cause fatigue.

Do consider using a good quality sun block on exposed skin as cyclists are vulnerable to sunstroke or sunburn

Do carry something to drink - Dehydration can occur anywhere, especially on longer journeys.

USING A CYCLE FOR OFFICIAL BUSINESS

Do use the most appropriate mode of transport bearing in mind the time taken and the need to carry any equipment (see 'Carrying things on a cycle' below). If you intend carrying any significant load or equipment on official business you must advise your line manager what it is and how it will be transported and get his/her agreement first.

Do wear a cycle helmet and a reflective / fluorescent tabard or jacket (a standard issue high visibility vest / jacket can be utilised) when using a cycle for official business.

CARRYING THINGS ON A CYCLE

Do carry loads in bags attached to the bike - various cycle racks, bags and accessories are available which can make carrying things easier and safer. Cyclists usually carry tools, spares and a waterproof in a 'seatpack' strapped under the saddle. Carrier racks will provide the greatest and most flexible capacity, while handlebar or saddlebags may be enough for a day ride. Commuters who need more capacity for carrying papers, a change of clothes, lunch etc should consider using pannier bags which are usually fixed to a rack (specialist commuter briefcases are also now available).

The heavier the object you wish to carry, the lower it should be placed to maintain a low centre of gravity and stability. Sports and racing bikes are not built for carrying heavy loads - touring, mountain bikes or conventional roadsters are more suitable. Whatever you carry it must be stable, secure & not:

- affect stability of the cycle or you;
- obscure your lights or rear reflector at night;
- hang loose to get tangled in wheels;
- project excessively/dangerously from cycle.

BUYING A NEW CYCLE

Do decide what you are going to use your cycle for e.g. all terrain or road work. When buying ask:

- Will the retailer check/adjust the cycle before you take delivery and make readjustments after the cycle has been ridden for a few weeks;
- Is the cycle built to a good standard - marked BS6102 and with Manufacturer's name;
- Is the frame and wheel size suitable for you - the retailer can give advice;
- With the saddle correctly adjusted can you straighten your leg with the heel of your foot on the bottom pedal;
- Do the brakes work - do they make correct contact with the wheel rim when applied;
- Are there the correct number and type of gears, considering it's intended use;
- Do the pedals have serrated edges - your feet are less likely to slip;
- Are there no sharp edges or protrusions which could inflict injury;
- Is a chain guard fitted - this can provide extra protection;
- Are there adequate maintenance instructions.

Buying by mail order

It is best to try out a cycle before purchasing but if you do decide to buy through mail order make sure it can be returned if found unsuitable. In particular:

- Are there adequate assembly/maintenance instructions;
- Make sure the cycle is correctly assembled - seek advice from an expert if you are unsure;
- Take great care regarding the positions of the handlebars, saddle and pedals;
- Always ask someone to help if you cannot understand the instructions.

N.B. Trading Standards is responsible for the enforcement of The Pedal Bicycle (Safety) Regulations 1984 and can be contacted for advice if you have a problem with the safety of a new cycle you have purchased.

BUYING A HELMET

A helmet can't prevent an accident but it will lessen the risk of serious head injury or death. Buy a helmet you like- it won't help if it's never worn.

Do make sure the helmet:

- Feels comfortable and fits properly;
- Touches your head at the crown, sides, back and front at the same time with the strap undone;
- Doesn't obscure your vision or restrict your hearing;
- Is made to a recognised standard (e.g. BS 6863 or SNELL);
- Is discarded if you have an accident with the helmet;

Do avoid second-hand - it may have been damaged or involved in an accident.

CYCLE MAINTENANCE**Daily inspection**

This may seem to be overdoing it a little, but there are a few things you ought to look out for whenever you take the bike out.

Do check:-

- tightness of any **quick-release** mechanisms on the wheels and the brakes.
- **tyres** are inflated properly, considering the type of terrain you will ride in. Generally tyre pressures should be higher on smooth, hard roads than on rough, loose or irregular surfaces. Guidance on correct pressures should be given on the tyre rim.
- **handlebars** are straight and at the right height. Check that you cannot twist them from side to side with the front wheel held firmly between your legs.
- **saddle** is straight, level, securely attached on the seat pillar and at the right height.
- each **brake** can block the wheel against your weight by pushing the bike forward with the lever depressed - leaving about 2 cm(³/₄ in) between brake lever and handlebars. Also check there are no stones/grit lodged in the blocks.

Monthly inspection

Do at least once a month during the time you use the bike, clean it as explained later. Then carry out the same inspections listed above for the daily inspection, and in addition do the following: -

Wheels: Check for broken spokes and wheel wobble. Lift the wheel off the ground and turn it relatively slowly, keeping an eye on a fixed point such as the brake blocks. If the wheel seems to wobble sideways relative to the fixed point, it should be trued.

Brakes: Observe what happens when you pull the brake levers forcefully. The brake blocks must touch the side of the rim over their entire surface when the lever is pulled hard.

Tyres: Check the tyres for external damage and embedded objects. Remove anything that doesn't belong there and replace the tyre if necessary.

Gears: If the bike has derailleur gears check whether they can be shifted to reach every combination of chainring and sprocket - it may be easier to turn the bike upside down to do this.

General inspection: Check all bolts and nuts to make sure they are tight, verify whether all moving parts turn freely and all adjustments are correct. Also check there is no play where the forks join the headset. Repair or replace anything damaged or missing.

Twice yearly

Do check the seat pillar inside the frame tube for rust and keep rust free with copper based grease.

Cleaning the bike

Do this job whenever your bike gets dirty - at least once a month in clean terrain and dry weather, much more frequently in bad weather or muddy terrain.

Cleaning procedure:

- If the bike is dry, wipe it with a soft brush or a cloth to remove any dust and other dry dirt. If the bike - or the dirt that adheres to it - is wet, hose or sponge it down with plenty of clean water. Take care not to get the water into the hubs, bottom bracket and head-set bearings, though. The same goes for a leather saddle.
- Using a damp cloth or toothbrush, clean in all the hard-to-reach nooks and crannies. Make sure you get into all the hidden places, such as between the sprockets on the freewheel and chainrings, underneath the brake arms, or at the derailleur pulleys.
- Clean and dry the same areas with a clean, soft, dry cloth.
- With a clean wax - or grease - soaked cloth, treat all the bare metal areas very sparingly to inhibit rust (avoid parts of the wheel rims that come into contact with the brake blocks)
- Twice a year, it may be worthwhile to apply car wax to the paintwork. At the same time, any chrome plated and bare metal parts may be treated with chrome polish, followed by an application of wax.

Lubrication

Lubricate the small moving parts, using the lubricants indicated below and wiping any excess off afterwards.

- **Chain:** Use chain lube/light oil.
- **Exposed uncoated metal parts:** Use car polish or wax.
- **Brake levers, pivots, and cables:** Spray a light lubricant, aiming precisely with the little tubular nozzle installed on the spray head.

Essential tools for the road

Do always keep with you (as a minimum) a pump, puncture repair outfit (an extra inner tube is useful, too), tyre levers and the appropriate spanners, hexagonal keys etc for your bike.

FURTHER INFORMATION

Cycling Officer ☎020 8541 7201.

Safer and Smarter Travel team ☎ 020 8541 9974 RoadSafety@Surreycc.gov.uk

SCC website Cycling pages,

www.surreycc.gov.uk/roadsandtransport/cyclinganddriving/cycling

Cyclists' Touring Club (CTC), www.ctc.org.uk

ROSPA, www.rospace.com/roadsafety/advice/cycling ☎0121 248 2000.

DfT Think road safety: cycling

http://www.dft.gov.uk/think/focusareas/cycling?whoareyou_id=&page=Overview