



## CHOOSING THE CORRECT BICYCLE TYPE

### Road



Road (or sometimes referred to as racing) bicycles have very light frames and smooth, narrow, high-pressure tyres. They're generally not the most comfortable of bicycles but their design makes them fast and responsive. Because of their light weight they take less energy to ride. They are not best suited to busy city riding as the crouched riding position can make it difficult for the rider to stay aware of what is going on around

them and the narrow tyres give a small contact patch when trying to stop in a hurry. Road bicycles can be difficult to control and uncomfortable for people new to them but experience on quiet roads allows most cyclists to adjust.

### Mountain

Mountain bikes have been very popular for a number of years. They tend to be robust with strong, durable components capable of taking a beating in off-road conditions. Typically they have fat, chunky tyres for off-roading but these can be changed to slicker tyres for more comfortable road riding. Mountain bikes tend to have strong, powerful brakes to slow the bike on steep descents. Seats tend to be well padded and comfortable. Many mountain bikes have front and rear suspension which can be a hindrance or a help depending on the type of terrain being covered.



### Hybrid



Hybrids are designed to offer the robust and upright riding associated with Mountain bikes while offering some of the speed and agility of Road bicycles. Hybrids are most like the Mountain bike but with lighter and less sturdy components. The wheels tend to be lighter and frailer than a mountain bike and have smoother tyres on them which are more suitable for road riding. Upright handlebars and a large number of gears help the

Hybrid tackle hills more easily than a Road bicycle. While equally capable of riding on roads or trails the Hybrid bicycle excels at neither; in short it is a good all-rounder.

## BMX

BMX (or Bicycle Moto-Cross to give its full title) are small, single geared bikes designed for pleasure rather than transportation. They tend not to come in different frame sizes and require very little maintenance due to their basic design. Brakes tend to be weak or, in some cases, non-existent since the purpose of the BMX is to travel fast round a dirt track where slowing down is not a major consideration. While perfect for the purpose they were designed for they are so specialised that they are virtually unusable for any other form of biking. Some BMX bikes have been modified for doing tricks and may have stunt pegs or strong disc brakes fitted for doing bunny-hops, wheelies, stoppies and the like.



## Touring



Touring bicycles are, as the name suggests, primarily designed for comfortable, long distance riding with luggage. They are relatively light and have a large number of gears to help with hilly terrain. They typically have eyelets for attaching pannier racks and have wider tyres than Road bicycles to aid stability (although this does make them slower than Road bicycles). Touring bicycles are one of the most capable bicycles for

commuting as they allow luggage to be carried in panniers and the smooth, wide tyres allow quick but controllable road riding.

## Recumbent

The Recumbent is considered a bit of an eccentric or exhibitionists bicycle. They are low with large seats which make them comfortable for long journeys but are not the safest of bicycles when used on the road. The riding position makes it difficult to put your feet down when coming to rest and being low to the ground makes it difficult for other road users to see. Many Recumbent cyclists fit tall and brightly coloured flags to the bicycle to make them more visible to other road users.



## Options

### Suspension



Many Mountain bikes are available with front and rear suspension. The primary reason for having suspension is to absorb the shock created when going over bumps. Suspension can either be adjustable or not. In non-adjustable suspension the damping is fixed which means that you cannot adjust it for different conditions such as road riding, forest riding or rocky trails. Adjustable suspension has a degree of flexibility and can be adjusted to suit the type of terrain being ridden over. Care should be taken not to make the suspension too hard or too soft for the conditions. Setting the suspension too soft will make the bicycle wallow and bounce and can allow the suspension to "bottom out" where the limit of the suspensions travel is reached and there is no damping ability left. Setting the suspension too hard will not allow the bicycle to

absorb anything but the most extreme bumps effectively acting like a bicycle without suspension. While suspension is useful it should be noted that having rear suspension reduces the force transmitted to the road when you pedal as the bicycle tends to “bob” up and down as you pedal and so is not beneficial in situations when high speed or minimum effort cycling is required (this is the reason why most Road and Touring bicycles still have ridged frames). Bicycles with suspension are also heavier than their rigid framed counterparts and so require more energy to move them. Front and rear suspension must be cleaned and maintained on a regular basis to keep them in good working order.

#### Disc Brakes

Disc brakes have numerous advantages over more traditional rim brakes. Firstly they are not adversely affected by rain, snow or mud. Rim brakes can slip on wet rims and can freeze on cold ones while mud between the rim and friction pad can score the rim and reduce braking force. Disc brakes do not require as much effort at the lever to produce a strong effect on the wheel. Disc brakes can be operated in one of two ways. They can be mechanical, where cables are used to bring together the pad and disc, or hydraulic, where fluid pressure is used to press the pad and disc together. Hydraulic disc brakes self adjust as the pad wears while mechanical disc brakes must be manually adjusted as the pad wears. Hydraulic brakes can be more difficult to maintain as air bubbles can get into brake lines. They are also susceptible to “brake fade” when the brake fluid is heated by the friction of braking and reduces the effect of the brakes. Mechanical disc brakes seldom fail but the cables that operate them can become dirty and corroded as they can be open to the elements.



#### Rack Eyelets



Rack eyelets on a bicycle frame can be used to securely attach pannier racks. They, in turn, hold panniers which save you from having to carry heavy loads on your back while cycling. An added advantage of using panniers is that, if you are unfortunate enough to be involved in a road traffic incident, you are not going to land on something hard contained in your rucksack.

#### Mud Guards

One of the most basic accessories that you can fit to your bicycle. Guards can tightly hug your tyre, if predominantly for wet weather riding, or be fitted further from the tyre, for muddy riding or if your bicycle has a suspension. Care should always be taken to ensure the guard doesn't foul any moving part of the bicycle including the wheel, suspension or steering. Mud guards don't only protect you from getting wet and muddy but also prevent your bicycle from getting damaged by excessive dirt on exposed cables, gears and brakes.



## Lights



Being seen is one of the most important safety considerations for cyclists. To be seen in dark conditions cyclists must, by law, use lights front and rear. Compact LED lights provide good illumination without weighing too much and draw very little current from the batteries. Remember that lights should be used not only at night but also at any time during the day when rain or overcast clouds reduce light levels.

## Personal Protective Equipment

Cycling can be a dangerous activity but good road sense and an awareness of your surroundings should keep you out of harms way. However, it is sensible to take precautions against accidents. Remember that as a cyclist you are a vulnerable road user and as such should protect yourself as a precautionary measure in case you have an accident.

A helmet is one of most important pieces of safety equipment that you should consider. It protects one of the most vulnerable areas of your body, your head. Cycling helmets should be a tight, but not uncomfortable fit, and should not move around on your head when fastened. It's a good idea to get one that has plenty of vents to stop your head getting too hot when riding.



High visibility clothing can help you be seen and avoid an accident in the first place. It needn't be the dull old fluorescent band. Waterproof jackets and rucksack covers are increasingly being produced for cyclists. Fluorescent items help you to be seen in the daytime while reflective items help you be seen at night. If possible get something that is both fluorescent and reflective so that one item will do for both day and night riding.



Gloves can prevent serious cuts and grazes to your hands. In many accidents people put their hands out to break their fall or protect themselves which can result in some very unpleasant injuries. Light, suede leather fingerless gloves keep your palms protected while letting air flow over your fingers to keep your hands cool.

Knee and elbow pads are a bit extreme for city riding but are advisable if you do much mountain biking. They absorb a lot of the impact that would otherwise be transferred to the joint

and can prevent cuts and grazes.