



# DIRECT ACCESS

What your pre-test training should cover



If you're over 21 and want to ride any kind of decent bike, Direct Access is the way to go

**Direct Access** is how most new riders get a full licence: a short, intense course that culminates in a test and (you hope) a pass. Some schools spread the lessons out over a few weeks; others (including Circuit Based Training) run the days together.

As the law stands, there is no legal curriculum for Direct Access. The quality of a course is entirely down to the quality of the instructor. Standards vary, so use the questions on page ?? to find a trainer you can trust. It's important.

A 'drive in, ride out' package for a beginner lasts three to seven days, and costs c. £700-£1200. A four-day course might break down like this:

Day 1: off-road CBT

Day 2: on-road CBT

Day 3: post-CBT instruction and practice, mostly on-road

Day 4: test preparation, and the test itself.

So what exactly do you get for your money and time? All schools are different, but expect:

- Full CBT instruction
- A daily briefing on what's in store
- An insistence that you wear full, protective, high-vis clothing (many trainers can lend it to you)
- Radio contact during riding, with a maximum of two students per instructor.
- Perhaps 30-60 minutes of off-road, low-speed practice to start each day
- Classroom sessions which prompt open, honest discussion of the previous day's experiences, accomplishments and difficulties
- Constant attention to basics such as low-speed balance, clutch control, braking, countersteering
- Ideally, a progress report to complete each day, recording what you've learned and how happy you were with the instruction.



**A DAY IN THE LIFE OF A DIRECT ACCESS GROUP**  
Most of it's on the road, usually in a staggered formation with the instructor. He's constantly encouraging you to plan ahead, and checking your bike control and road awareness. You get the chance to follow and lead.

As confidence builds, the ride takes in more complex skills such as dual carriageways and overtaking. You should always feel you are riding for yourself, and not be influenced by other road users in any way.

Lunch is important, not just for energy and fluids (some sports physios have suggested that dehydration contributes to many bike accidents) but also to clarify progress.

# WHAT SHOULD BE IN A DIRECT ACCESS COURSE

There's no government-approved syllabus, but at Circuit Based Training we teach these 11 key areas. Wherever you train, you should be looking for something similarly exhaustive

## 1. Slow-speed control

Becoming proficient and fearless at U-turns, precise slow control and balance.

## 2. Forward planning

Recognising what's going to happen in road situations, and acting on it by using the appropriate speed.

## 3. Left and right turns

How to perform the two most basic manoeuvres safely, including Observe, Signal, Manoeuvre, Position, Speed, Look (OSMPSL).

## 4. Roundabouts, traffic lights and junctions

Dealing with the complexities of every kind of intersection you will encounter: the legalities, typical problems, technique and filtering.

## 5. Braking and emergency stops

Developing really confident use of both brakes for a wide range of situations and surfaces, and learning to do emergency stops from high speed.

## 6. Road position and awareness

Learning to select the right following distance and road positioning. Using rear observation, peripheral vision and hazard perception.

## 7. Overtaking and use of gears

Discovering and becoming confident with the motorcycle's greatest strength: its ability to pass other traffic. Making gear changing effortless.

## 8. Cornering

A solid grounding in corner assessment and technique: approach, using the vanishing point, keeping maximum forward vision, countersteering, corner speed and driving out.

## 9. Attitude

Finding a way to think about riding which puts your safety, and that of other road users, at the top of your decision-making process. Discussing ways you can keep improving after you've passed.

## 10. Taking a pillion

How and when to take a passenger: your responsibilities and the difference it will make to how your bike behaves.

## 11. Mechanical checks

Three sensible pre-ride checks not legally specified in the CBT syllabus.

All these areas are on top of the CBT syllabus described in Chapter 2. If you're taking a block course, it's an exhausting amount of mental and physical work. Make sure you've got enough free time to cope with it.



2008 Suzuki DR-Z400SM

## 1. Slow-speed control

This is where many new riders feel vulnerable. The fear of losing balance on such a large lump of metal and plastic can play on your mind.

However, it's no good ignoring slow-speed control and just getting on with riding at 'normal' speeds. Any idiot can ride a bike along a road in a straight line. But between every road there is a junction and, if your slow-speed control hasn't developed, the examiner will easily find you out.

Your instructor should give you as much practice as it takes to understand your balance and learn to overcome any slow-speed issues. Get him to demonstrate all the slow-speed manoeuvres so you can watch how he uses the throttle and clutch. If it's still difficult, ask to sit on the back while he does it again. You'll really get a feel for

the subtle control needed to achieve success.

Drop the bike if you have to – it's not yours, so don't worry about it! Many riders are so keen to avoid a spill they try to complete a low-speed turn virtually upright. This becomes very frustrating and will never work; you need to see how far you can lean it and stay in control.

A great tip is to recognise your own 'wobble speed' – the speed which you know you find very difficult – and make sure you stay just above it. Some people fail their test by doing the U-turn so slowly that they are more concerned about their balance than making the turn (see also page ???). So spend time on building confidence, working on the 'listen and feel' relationship between throttle, clutch, rear brake and forward vision.



'Oh, I'll let him work out the road ahead. It's easier.' Wrong! Never be tempted to let a rider ahead do your planning for you. It's your job

2000 Yamaha YZF-R1

## 2. Forward planning

It's so important to plan ahead. In fact, nothing on a bike – absolutely nothing – matters more.

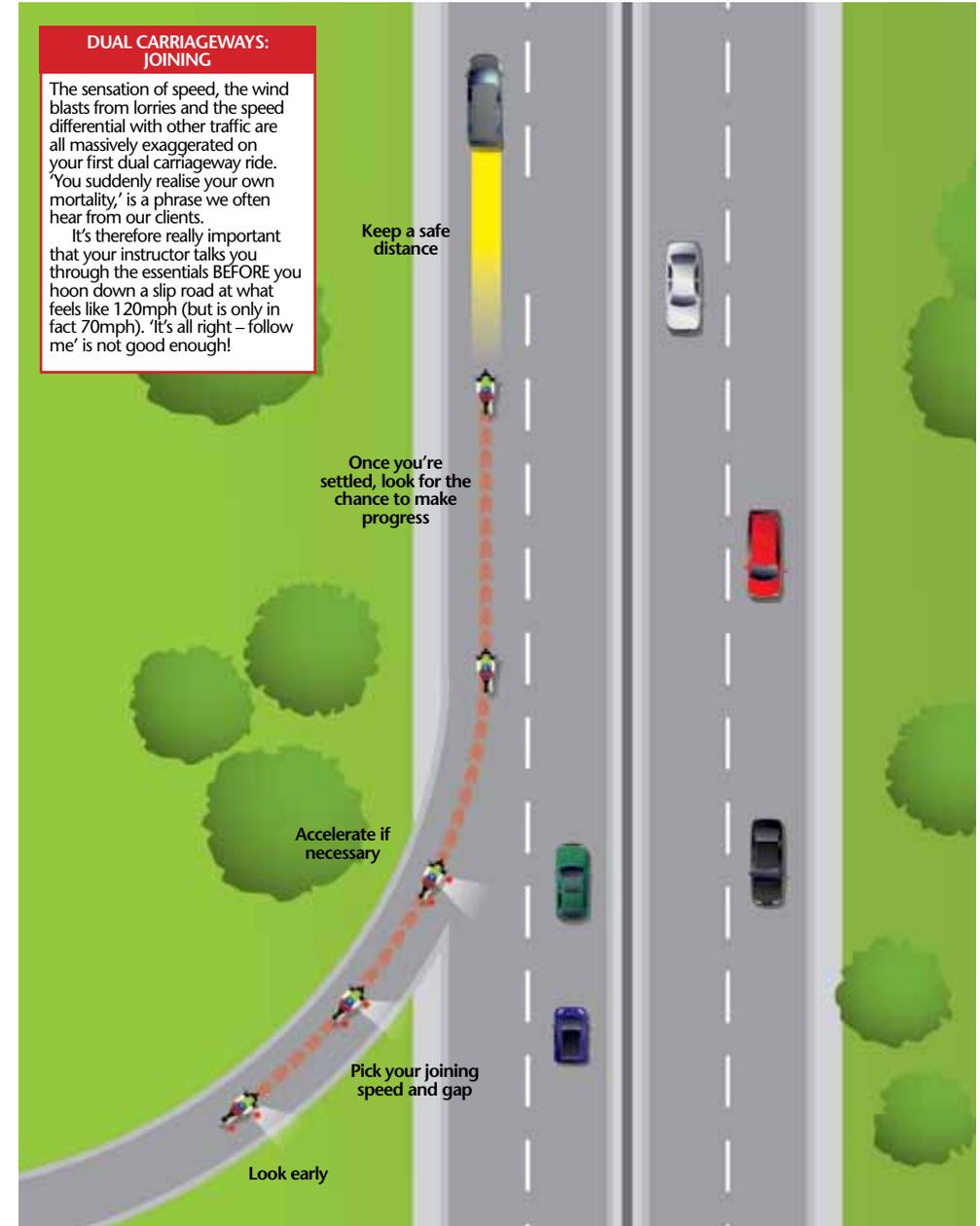
Imagine an accident, or a scary near-miss. If you'd been warned it was about to happen, you could take avoiding action: slow down, brake, steer out of the way, put your bike in a different position, beep your horn, whatever. Well, if you develop your entire way of riding around forward planning, then you are creating those warnings.

In fact, almost all problems on a bike are foreseeable if its rider can only pick up the clues, and use them to give him or herself enough space and time. Space gives you a choice of where to go

– or not to go. Time gives you the opportunity to make a good decision, and turn a disaster into nothing at all. These two things – space and time – are the rider's friend. And the faster you go, the more of both you need.

So, where are the clues? The most obvious ones are put there for your benefit: road signs and painted markings. On top of that is the constantly shifting flow of other traffic: a queue up ahead, a driver on the phone, a group of kids playing at the edge of the road. They're all opportunities to re-assess how much manoeuvre room or thinking time you need around you to stay safe.

The most important clue of all is the limit of





How much information can you get from this picture? What is certain – and what isn't yet certain?

1962 BSA A50 Star

what you can see, whether that's behind you, up ahead or on either side. This limit point is the boundary of operations. You must be able to stop inside it, on your side of the road. So all the while you're riding, notice your limit point. Where exactly is it at any one moment? Can you get in a better position, so that you can see more?

On test it's essential to show the examiner that you've seen every potential problem well in advance. Get into the habit of scanning well ahead and, once you've spotted a hazard, act on it straight away. Don't wait until you are almost upon it before making your move.

Compare how your instructor sets himself up for meeting oncoming traffic, or overtaking parked cars, and see how smooth the transition is from one position to another. A 20-minute pillion ride on the back of your his bike, with him giving a running commentary over the radio of what he's doing, can often get across the standard required to impress the examiner.

“ I passed after training with a small company in Exeter. Their Direct Access course included filtering (how fast to go, when it's appropriate, what to watch out for); countersteering (the fastest way to change direction); use of the vanishing point to regulate speed to an appropriate level; and practising, on a quiet road, braking to a stop from 100mph.

I was extremely pleased with my training, and felt it prepared me really well for day-to-day riding. My instructor was a fast, safe rider who obviously cared a lot about keeping people safe. I think these so-called advanced skills should be a part of the Direct Access course. Filtering in particular is a skill riders need immediately, and the vanishing point has saved my a

life a handful of times.



**David Glasborow**

**DUAL CARRIAGEWAYS: OVERTAKING AND LEAVING**

Your instructor should only let you onto these roads when you have mastered doing 60mph on single carriageway. You should also get a detailed briefing on:

**Other road users**  
How to assess and be prepared for:  
Speeding traffic  
Lane-changing and erratic movements  
Emergency situations

**The road itself**  
Weather/visibility  
Use of slip roads  
Road markings/signs  
Bends

**Your instructor**  
What he expects of you  
How he will ride  
Instructions he will give  
Where you will be exiting

**Yourself**  
How to enter  
How to make use of speed  
Fitting in/following distance  
Body position  
Use of indicators  
How to plan an overtake  
Observations  
Use of gears  
How to exit

Use slip road to slow down smoothly

Maintain 70mph until exit

Indicate by 300 yard marker

Use mirrors to assess whether it's safe to exit

Use mirrors and lifesaver to assess whether it's safe to overtake

Maintain a general safety zone of four seconds

Observe before moving back in

Clear vehicle by at least four seconds before showing correct lane discipline

Don't indicate unless it helps other traffic



Junctions, turns and roundabouts should be fully explained BEFORE you set out

### 3. Left and right turns

These will be a major part of the test. The examiner will look to see that you are using a safe, reliable template for junctions, and major changes in speed and direction. Your key objective is to separate each element in a relaxed manner, and only manoeuvre into position according to the road layout ahead of you. The examiner needs to be sure you act only on what you have seen, and that you don't wobble or inadvertently change direction or speed when checking your mirrors or during any shoulder checks. Now is the time to perfect your technique.

#### Junctions

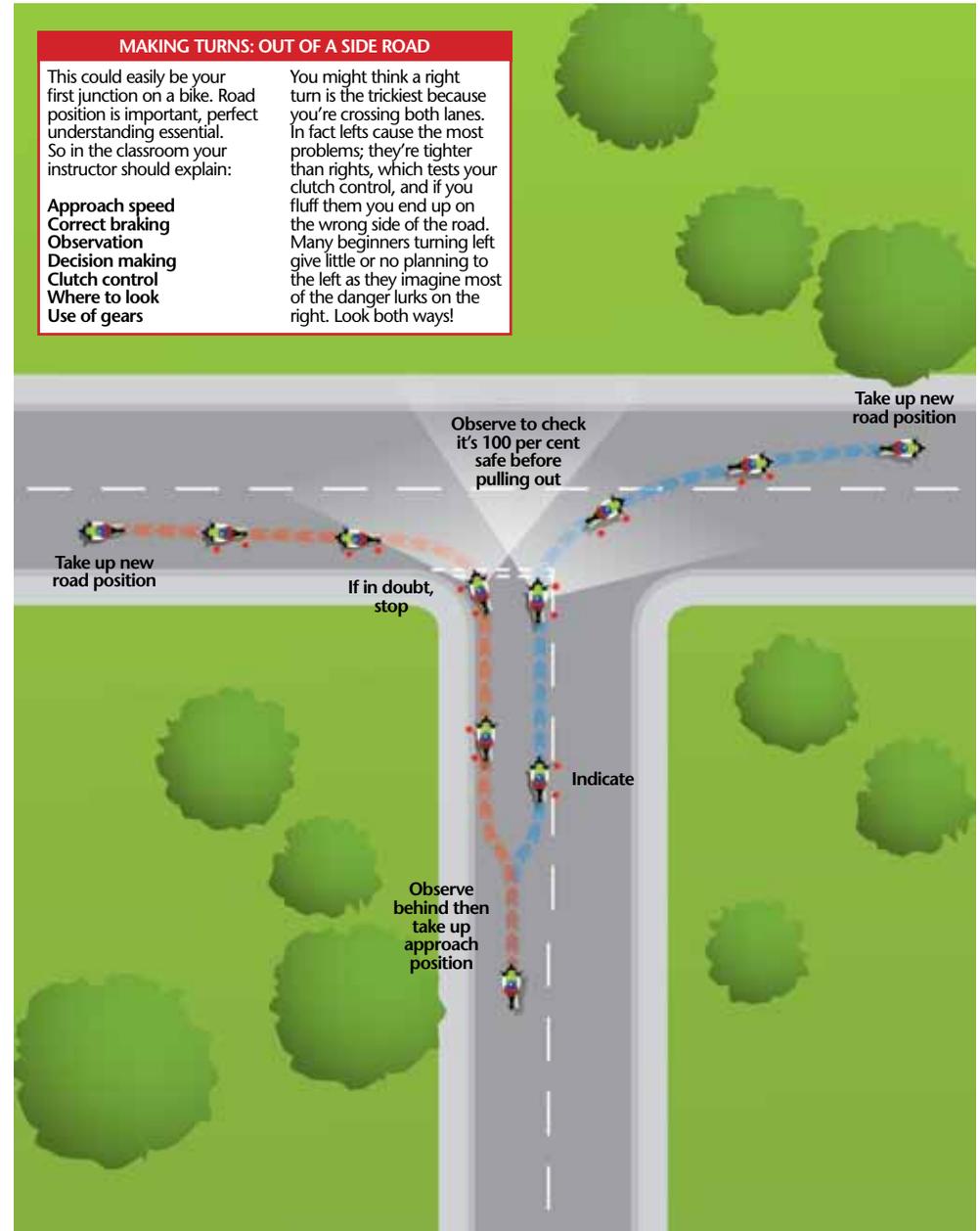
To gain enough confidence to cope with any situation the test throws up, you'll need to work on junctions repeatedly over different days.

Remember, you don't have to keep moving at every junction; it's more important to prove you are safe and trustworthy on a motorcycle. So use the OSMPSL system (see over the page) methodically. Get in the habit of making your decisions early, and avoid any temptation to steal a quick, last-minute look. Approach all junctions at a speed where you can easily stop if you have to. Only go if you are 100 per cent sure it's safe.

When you U-turn out of a junction, concentrate on where you're going so that you make a smart, smooth manoeuvre – but don't concentrate so hard that you fail to see an overtaking vehicle coming towards you on your side of the road.

#### Left turns

Before you slow down, move to the left hand side of your lane. This ensures you're not holding up any traffic not turning with you.



When you take a pillion, make sure they know to keep their bonce out of the way of lifesavers



2005 Honda Vardero 125

If you're turning off a major road, enter the side road at a comfortable pace which allows you to hold your intended line.

Always consider a left 'lifesaver' look over your shoulder before committing to the turn, even though one won't always be required. If you're out in the country at 60mph, with fields either side of you and no other traffic, you'll be fine without. But in the middle of town, with lots of activity and pedestrians, then a left shoulder lifesaver is required. Use your discretion to decide what's appropriate for the conditions.

### Right turns

These are inherently more dangerous than lefts (though not necessarily more problematic), because they take you across the path of oncoming traffic. Moreover, when you're turning right into a smaller road it's vital to have a good look over your right shoulder in case some hothead tries to overtake you as youU-turn.

The examiner will be looking for this 'lifesaver' each time youU-turn right. The best time to look is two seconds before you commit to turning. That way, you have time to act if there's any danger.

**MAKING TURNS:  
INTO A SIDE ROAD**

**Side road junctions** are the classic place for riders to get hurt by another vehicle. That's why your instructor should explain **OSMPSL** (Observe, Signal, Manoeuvre, Position, Speed, Look) to you in detail. He should include how to cope with different road widths and traffic situations.

The last of these six actions, Look, is usually known as a 'lifesaver'. Always do a lifesaver when turning right into a side road, in case some mush head overtakes at the wrong time. The need for left lifesavers depends on the conditions (see p??).

**HOW TO LOOK**

1. Check left mirror
2. Check right mirror
3. Make a lifesaver



Quiet roundabouts are fine. The examiner wants to see if you can handle rush hour

## 4. Roundabouts, traffic lights and junctions

### Roundabouts

Roundabouts are a far more complex scenario than your standard bend because, by their very nature, they present several opportunities for traffic to join in with you just when you least need it. This is a major distraction that can mess up your throttle and brake control. The lane markings can sometimes be difficult too, with an emphasis on symmetry and overcomplicated lane discipline rather than on allowing traffic to flow smoothly.

As a general rule, you should look to be in the leftmost available lane which allows you to complete your turn. Read your road markings on the approach to work out which lane you need, and stay with it throughout.

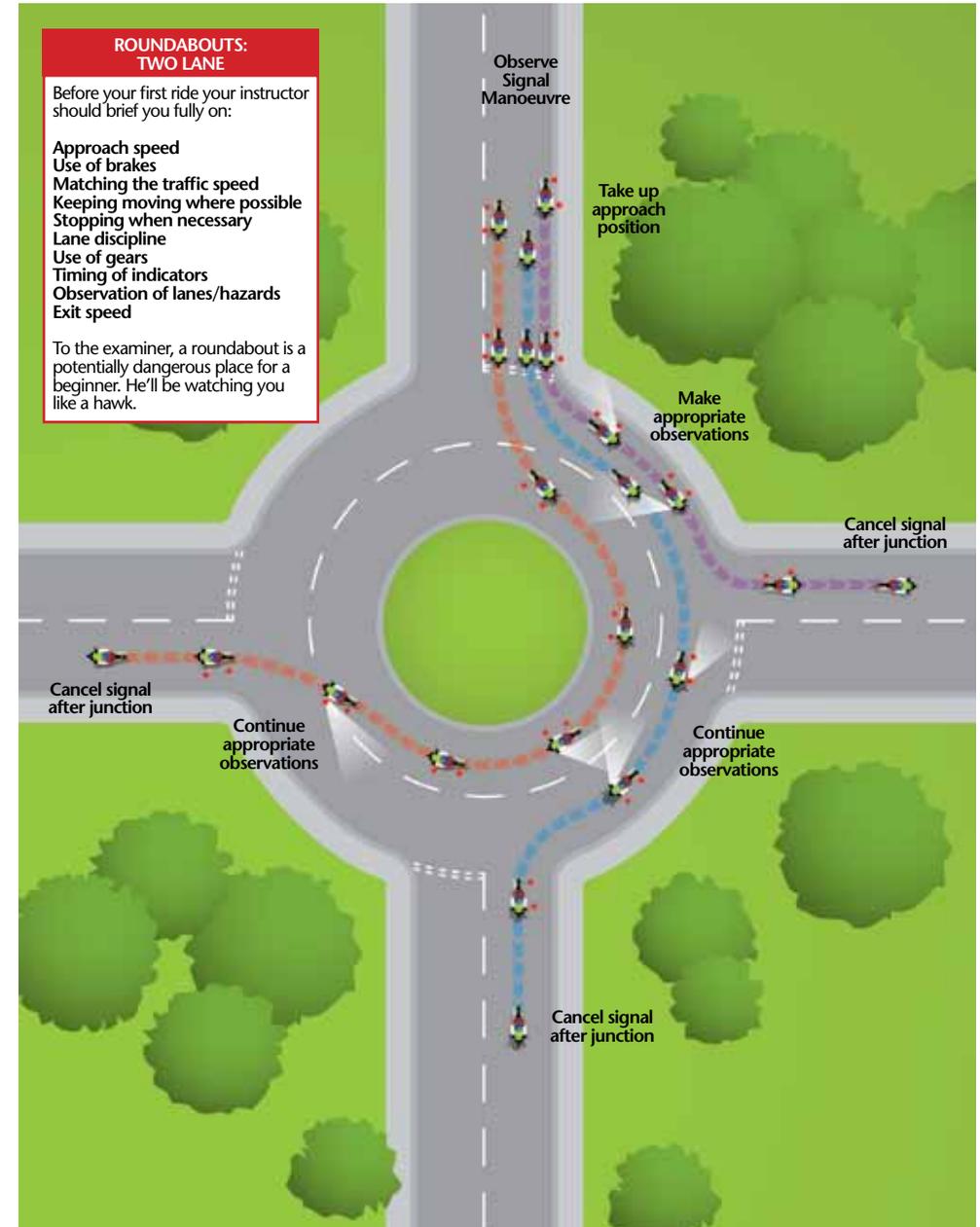
If you're having trouble keeping your lane

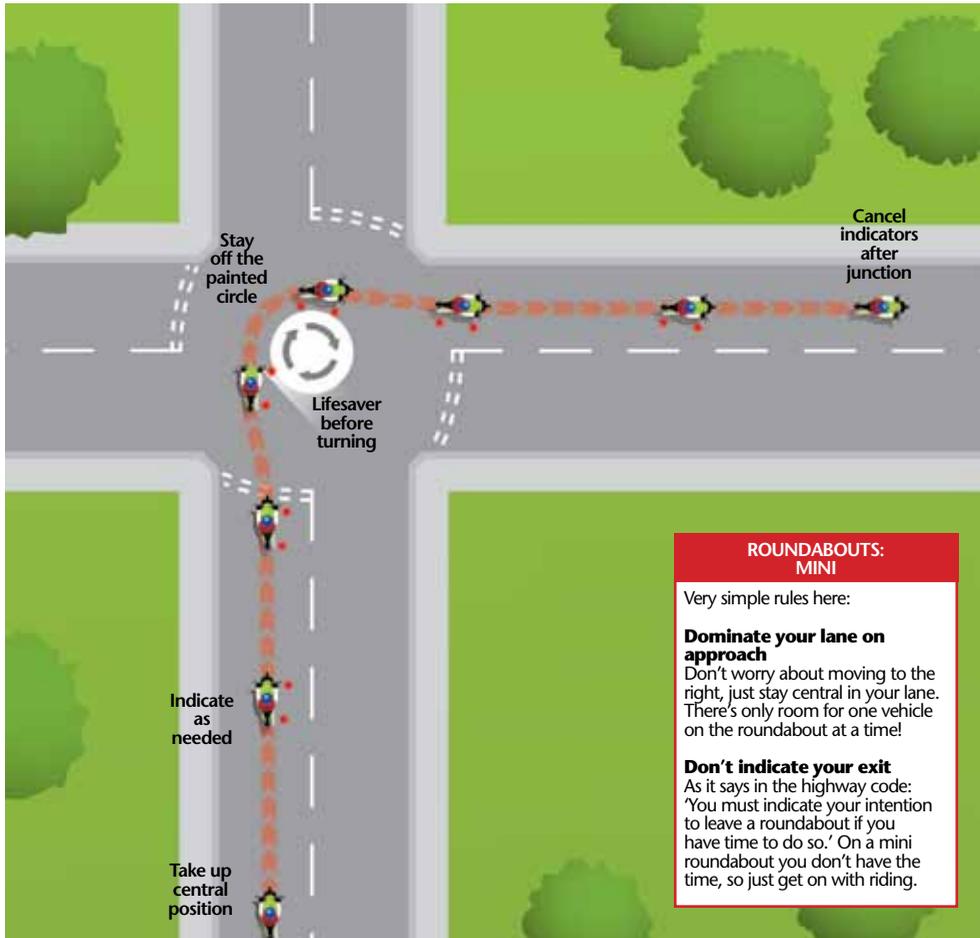
discipline in roundabouts, and running wide, it's usually down to one of three things:

#### 1. Too early on the throttle

If you look for the natural line to your exit it's easy to accelerate too early and slightly too much – and then find yourself having to adhere to the lane layout which often requires you to tighten up later in the turn.

Road designers are trying to achieve two things at once: to fit several vehicles onto the roundabout to maximise traffic flow, and to guide each vehicle towards its intended exit by positioning for it as soon as possible. This often gives a very unnatural feel to the flow of the junction – but it makes exiting the roundabout more idiot proof (and therefore reduces accidents, which is what roundabouts are all about). The trick is to notice these are not ordinary corners.





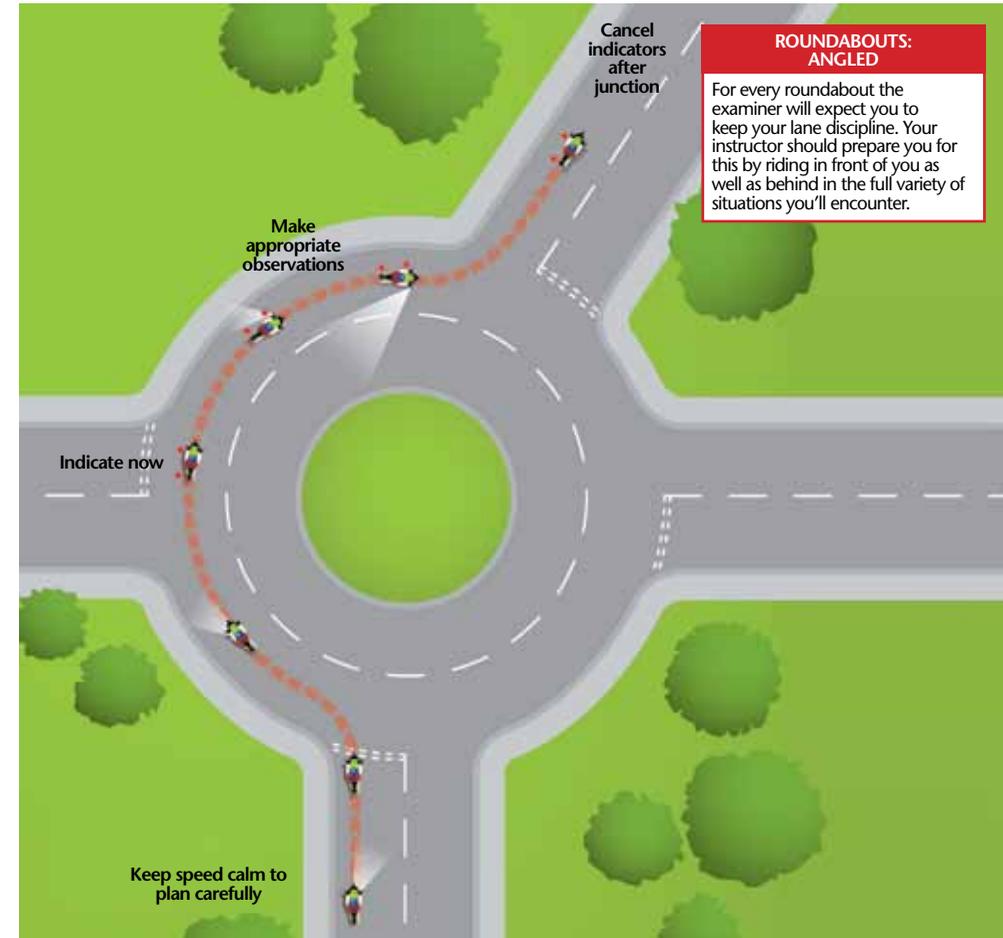
**2. Not looking in the right place**

A roundabout is really three mini-bends in one: a left turn just to get on, a right turn as you go round, and a second left hander as you leave.

As you enter the roundabout, concentrate on where you intend to put the bike. If you're going straight on, or turning right, this won't be your exit – it'll be the the mid-way point of the roundabout. If you do stare longingly at the exit as you approach, you're likely to lose your intended

line about two-thirds of the way round as you find yourself going marginally too quickly, and perhaps running wide.

What you're actually doing when this happens is making yourself subliminally anxious by focusing on the wrong place, rather than where you need to be. Your natural instinct then is to shut the throttle slightly, or even close it completely, which can make the bike sit up and tend to run wide. Understand this and you'll be fine.



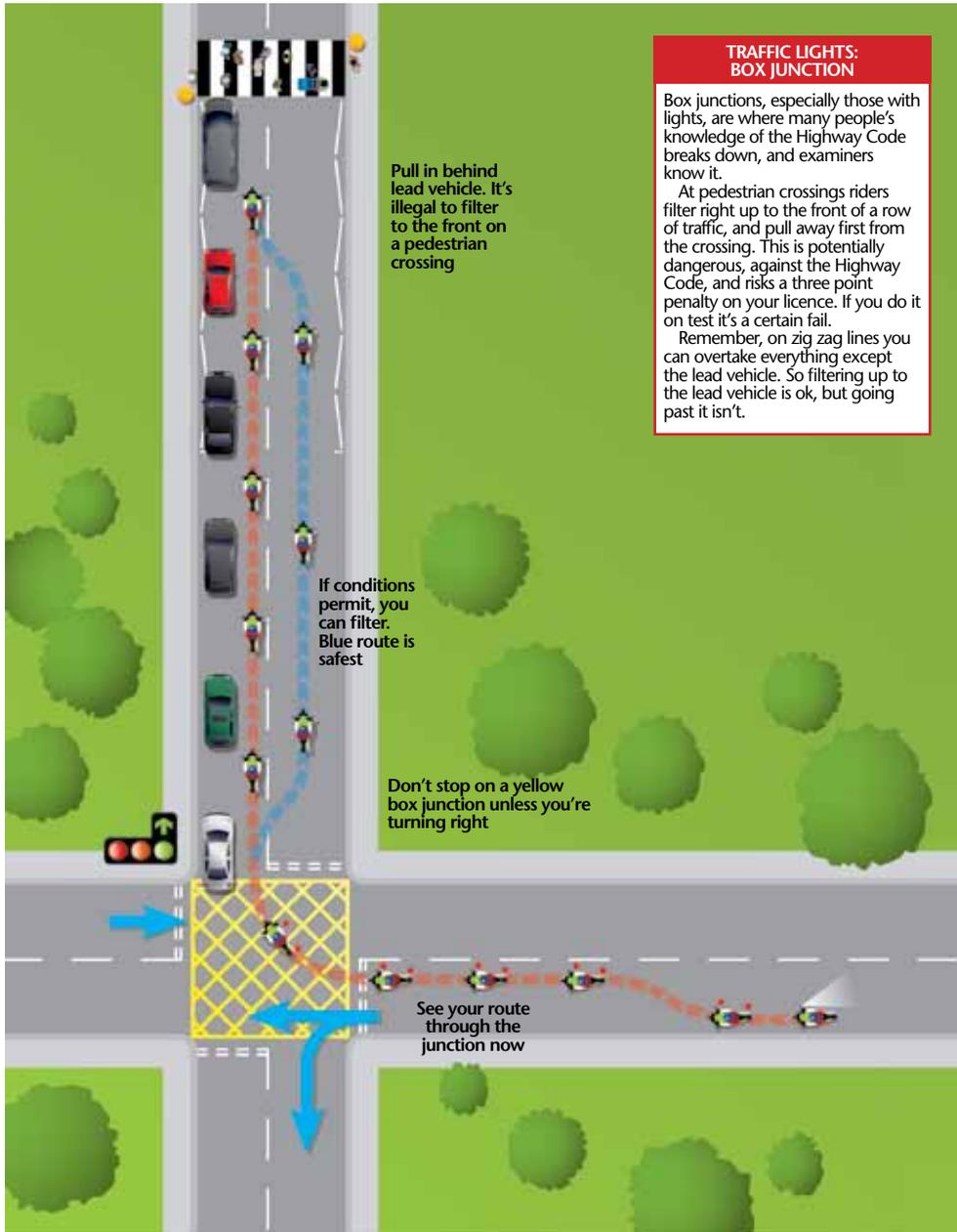
**3. Too fast on approach**

Riders get hurt in two main areas: bends and junctions. Roundabouts, being a densely-packed mixture of both, are a multiple opportunity to come to grief.

It's easy to assess the traffic risks, find a gap, join the roundabout smartly – and then find yourself going slightly too quickly to be comfortable with the sudden camber or gradient changes built into it. This in turn can have a pronounced effect on

your ability to change direction. The examiner, following closely behind, will have no difficulty noticing.

So make the approach to any roundabout nice and easy – after all, you may well have to stop. At this steady pace you can pick your lane, look for camber changes and diesel spillages, and plot your route through safely. Driving out assertively is a good thing, and a lot more satisfying when you've got the approach in hand.



### Traffic lights/box junction

Traffic light junctions are a great opportunity for the examiner to put you in difficult situations to see how you cope. Your instructor therefore has to make sure that you understand how to negotiate the situations they govern.

On approaching a set of lights, even if they're on green, be prepared to stop if need be. Don't assume that they'll stay on green, or that all other traffic obeys their red signal. Otherwise make as much progress as you can safely, without blocking other road users' need to turn.

Ask your instructor to demonstrate the 'point of no return' – the distance from the lights where it is now unsafe to stop, even if they turn from green to amber. When this happens to you, be positive and dominate the situation. It's what an examiner wants to see. He knows it's a real world situation and expects you to act accordingly.

The worst thing you can do is dither, slam on the brakes and stop abruptly, only to find yourself beyond the give way line. It guarantees a fail on the grounds of hesitancy, lack of forward planning and performing a dangerous action.

Traffic lights with box junctions add an extra layer of decision making. Before entering the box, make sure you can see your way out. Because you're on a bike, this can include filtering. Doing so on test it will satisfy the examiner that you are safe, competent and know the Highway Code.

Ask your instructor to talk you through the developing situation in the picture on the left. How do you deal with the filter arrow, backed up traffic and busy pedestrian crossing? Can you stop in the box junction? When should you take the blue and red route after turning? How far are you allowed to filter past the stationary traffic on your way to the zebra crossing?





Forks fully compressed, back end extended, rider sat up, elbows slightly bent. The datalogger strapped to the back is recording 0.9g deceleration – a true emergency stop

2007 Suzuki GSX-R1000 K7

## 5. Braking and emergency stops

Braking a motorcycle really hard isn't easy. Unlike with a car, a bike's weight under braking shifts forward dramatically, increasing the downward force on the front tyre, which in turn allows you to brake even harder, which causes further weight shift, and so on.

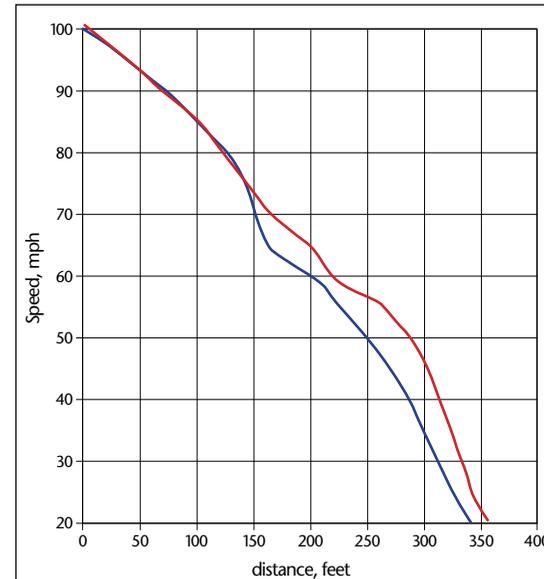
Most bikes have an independent front and rear brake, and to stop in the shortest distance you need the skill to load up the front tyre (which, during hard braking, does nearly all of the stopping), while simultaneously reducing the contribution of the rear brake as the weight shifts forward. It's quite a challenge, and you can only manage it when you're sure of what you're

feeling, and understand how to build pressure smoothly but swiftly.

An increasing trend – and shortly to become law for most bikes – is to 'engineer out' the need for most of the skill by fitting ABS. But even then you need the nerve to bang the brakes on really hard, and the experience not to be alarmed by the resulting G-force.

So whether you have ABS or not, practice – lots of it – is vital. Research by Honda shows that many riders are frightened to use the front brake, and rely (especially in a panic situation) on the rear. This is a disastrous strategy even if you have ABS. From a humble 40mph, braking with the rear alone requires over 40 per cent more stopping distance. At high speeds the difference between 'rear only' and 'both' gets worse and worse.

## ABS vs conventional brakes



These two lines demonstrate the advantage ABS can give you.

The **red line** shows a 2008 **Triumph 675 Daytona** with a skilled rider going from 100mph to 0 as quickly as he can, on a dry but not particularly grippy road. After three attempts his best is 356 feet.

The **blue line** shows a 2008 **BMW R1200GS** fitted with ABS. After just one run it beats the little sportsbike (whose centre of gravity has been optimised for extreme braking, remember) by 13 feet – the length of a car.

ABS still takes a bit of nerve to use, but it means a beginner can equal or beat an expert.

To build your confidence, focus hard on the pressure you're generating at the brake lever and pedal, and the forward shift in weight. To prepare for braking, keep your arms slightly bent at the elbows, squeeze the tank with your knees, and find a comfortable, neutral position which allows you to concentrate on accurate braking technique.

During your training you should practise emergency stops every day (it's a very good idea after you pass, too). See if your instructor will allow you to do it at a higher speed than the 31mph required. If you can master emergency stops at a real-world 50-60mph then you'll be confident on test, and better prepared for the real world. Remember, it's all about reacting quickly – but using the brakes smoothly.



I passed my test 15 years ago and still can't believe how easy it was. After a near-death experience at 18 involving an RD125, the side of a Land Rover, a coma and four months of hospital food I thought I'd calmed down. Then I folded a 350 YPVS around a lamp post. Obviously I wasn't well trained despite seven years riding, a few orthopaedic procedures and passing my CBT/test first time. Only in the last year have I realised how utterly crucial braking and cornering skills are, following an easily avoidable high speed crash.

**Simon Lloyd**



A nice day on Dartmoor. So, where's the best road position for your bike, from here to the horizon?

1962 BSA ASO Star

## 6. Road position and awareness

### Following distance

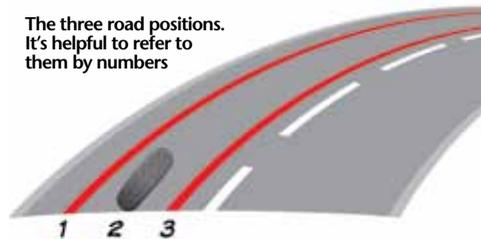
'Only a fool breaks the two-second rule', goes the old saying. And it's exactly right. Your instructor should always enforce this rule in all road situations, at any speed. Quite rightly, examiners fail riders for following too closely. It's a major (and entirely avoidable) factor in serious accidents.

### Road positioning

From the moment you take a bike onto the road you always need to be in a good position to be seen, and to react to any hazard. Later on (see Chapter six) you can vary your road position on the approach to corners to maximise this effect. To begin with, it's best to position yourself in the centre of your lane (position two), provided you

are happy with the road surface and grip levels available. Although this position doesn't optimise your forward vision, it is fine to gain a test pass.

The three road positions. It's helpful to refer to them by numbers



### Rear observation

Right from the early stages your instructor will explain when it's important to check behind you. As a general rule you should always be aware of what's behind you before you even consider any major change in speed or direction.



Oops! Crunch! Where were you looking? Where was your attention? It has to be everywhere

As a guide, this means when you:

- pull away from the side of the road
- change speed substantially
- pass through a speed limit change
- pull in towards the side of the road
- change lanes
- and before you commit to a junction or roundabout (the shoulder check or lifesaver)

It's best to check both mirrors and your blind spot in the direction in which you would like to move. Occasionally you may feel that, because of other relevant influences, one mirror check is enough, and the examiner will take this into account when reviewing your ride.

Consider when it is safe for you to take your eye off the road ahead to check your mirrors or look behind, and when it isn't. Riders have lost control by looking in their mirrors half way round a bend. Always wait for a safe opportunity.

### Peripheral vision and hazard perception

Your instructor should encourage you to look for hazards either side of you as well as in the distance. Research with eye movement sensors in Japan has shown huge differences between beginners and experienced riders. The latter group tended to scan a wide area in front and either side of them, at all distances, even noticing cues such as reflections of oncoming vehicles in shop windows. Never get transfixed on one point ahead. Open your vision up; use it like a scanner.

Honda's riding simulators sometimes appear at shows. Unfortunately they're not widely available



## 7. Cornering

This is such a vital area for a new rider that your instructor should be raising your awareness and testing your knowledge in the classroom, before you even go out onto public roads. The old advice of 'slow down, lean the bike' is not enough. You need to be completely happy with approach speed, choosing the right gear, using the vanishing point, turning the bike through countersteering, and powering out.

Many riders remain hesitant about corners long after they pass their test. There's no need, and the only reason is poor training. Your instructor should show you how to match the correct gear to your road speed before you reach the bend, and help you develop the confidence to see your line, and use the throttle on the way through and out. This confidence can only come with practice, and lots

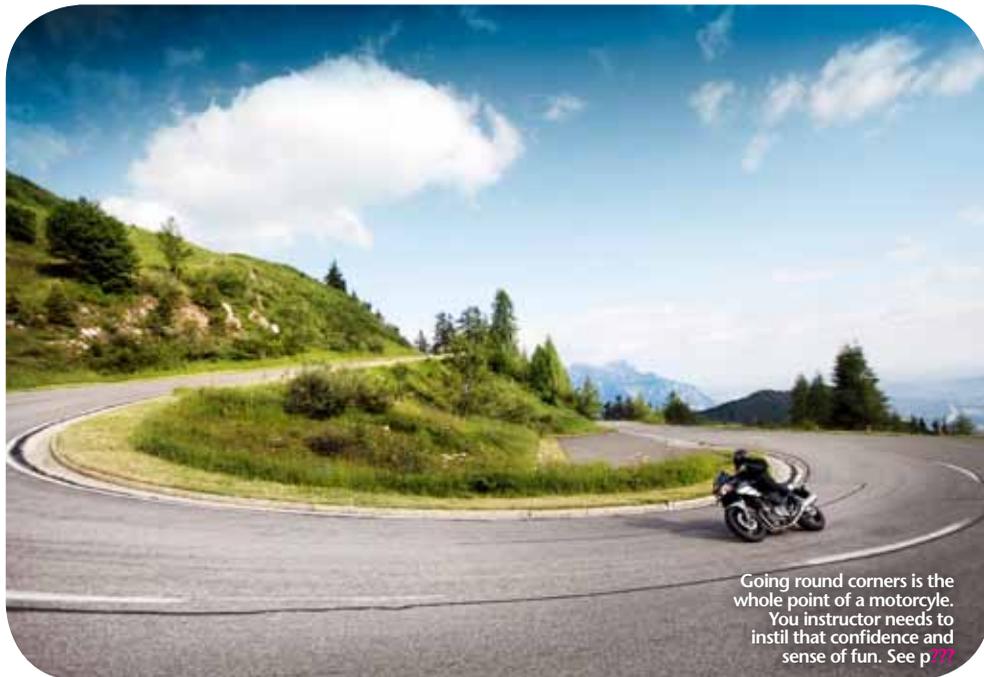
“ One day after doing Direct Access I ran wide, into the path of a car coming the other way. Thankfully, the car saw me in enough time to brake, I braked, and we didn't collide. The truth is I had NO IDEA how the bike got round a corner. Why would I? No one had ever taught me. I'm amazed I was allowed to pass, but obviously the examiner saw what he needed to see.

**Sarah Maguire**



of it. So make sure you get out of town on twisty A roads for 50-70 miles at a time.

As cornering is such a crucial subject we've put a full explanation in Chapter six, p???



Going round corners is the whole point of a motorcycle. You instructor needs to instil that confidence and sense of fun. See p???

2006 Yamaha TDM900



Because bikes are so nimble and powerful, they can overtake very easily. Your instructor should make sure you can exploit this fact safely, smoothly and courteously

2000 Yamaha YZF-R1

## 8. Overtaking and gears

Being able to pass other traffic easily is what separates a bike from every other road vehicle.

You should expect specific instruction on how to plan and execute overtakes: when to do it; how to judge whether it's safe; selecting the right gear; and being aware of the potential dangers.

New riders, especially if they've driven a car, can be reluctant to rev a bike engine. But you must, to gain a feel for what your bike can do. As with Cornering, there's a full explanation in Chapter 6.



Now that I have a 600 I am realising that I do lack in a number of crucial riding skill areas such as cornering and braking. It would have been nice to have been taught a proper syllabus giving me all the skills I needed, rather than just taught to pass the test.

**Bill Robotham**





Former MotoGP rider Ruben Xaus demonstrating a courteous and safety-conscious attitude

2007 Ducati Hypermotard 1100S

## 9. Attitude

A basic fact: if you can't achieve a calm, methodical approach to making progress on public roads you'll end up in the scenery.

A minority of motorcyclists have little regard for other road users and expect everyone to see them at all times, at any speed. This is just not realistic; blaming the drivers of other vehicles guarantees you will remain in a reactive frame of mind. And on a bike, that's a frighteningly weak position to be in. Far better to cultivate the mindset where (regardless of legal rights and wrongs) you regard everything unpleasant that happens as your fault. That way, you will shift to an anticipatory way of riding. And that is the best protection from harm you can possibly have – short of taking the bus.

If you choose to ride faster than the speed limit you can't expect to be protected by the Highway Code. The more speed you add, the more you increase the risk to yourself and others. Just as we

make mistakes on a bike, we have to accept that other road users make mistakes of equal or greater importance. It's a fact of life that we must all build into our risk assessments, moment by moment.



If you are riding a sports bike, there's the feeling that unless it is being

ridden in a 'hypersports' way you are surely a complete wimp. People should be capable of withstanding this sort of mental pressure, but the ability (or lack of it) to make a bike go fast around corners is a huge macho issue, perpetuated by a large proportion of the biking press.

I think that simply training people how to ride is only half the issue. They also need training not to feel the need to prove something. **Chris George**



Try to understand how other people will perceive you, and what they will be looking for. They're in a slower, heavier vehicle. They will be thinking more slowly and heavily. So don't be surprised when a car driver doesn't pull out in front of a 38 tonne lorry doing 50mph, but does pull out in front of you when you're going faster.

A calm attitude even helps on your test. Most of us these days learn to ride much later than we could, so there's no point in putting pressure on yourself to pass first time. What's more important is how you ride for the next 20 years. Likewise, if you arrive at your destination 30 seconds after your mates, you need to be able to say: 'So what?'

## Lifelong learning

Virtually everyone in our *Bike* magazine survey told us they were taught just enough to scrape through the basic test. If that's happened to you too, sign yourself up for an advanced course as soon as you can. Even if you were taught well, try to improve each year by taking on some kind of challenge which stretches your ability, or reminds you how you should be riding (see Chapter 8).

No rider, even Valentino Rossi, ever stops learning while they ride. So keep an open mind. It increases your ability and understanding, and decreases the chance of an accident. You only die once, and you don't want it to be this year.

## Why car drivers don't see you

In 2008 Honda published some fascinating research into car drivers' gaze patterns, glance times and recognition of speed and distance.

It turns out that an approaching bike's single headlight and narrow frontal area creates a much smaller change on the human retina than a wide, twin-headlight car does. So the driver thinks you're slower and further away than you really are. This explains the classic SMIDSY (Sorry Mate I Didn't See You) crash, where a car pulls out of a side road into your path.

Honda have come up with two solutions: either create the same widely-spaced lights as a car's (but vertically, as in their ASV-3 concept bike on the right), or give the bike a human 'face' which our brains are hardwired to recognise.

Honda say a car driver will perceive an ASV-3 to be as close as a car at the same distance and speed, but travelling 10 per cent faster. They will therefore be less likely to pull out. A normal bike, by comparison, looks 10 per cent further away than the equivalent car, and 10 per cent slower.



Widely-spaced lights on Honda's ASV concept scooter make it as visible as a car. Meanwhile, take care near side turnings



## 10. Taking a pillion

Besides adding a whole bunch of extra responsibility, pillion riding is a good test of how smooth your bike control is. Any helmet clonking is a sign that there's room for improvement.

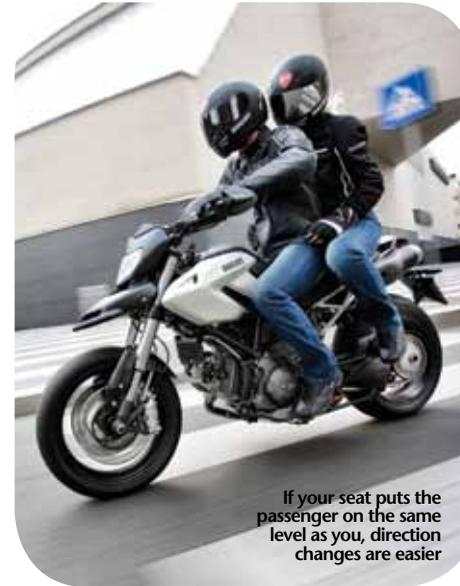
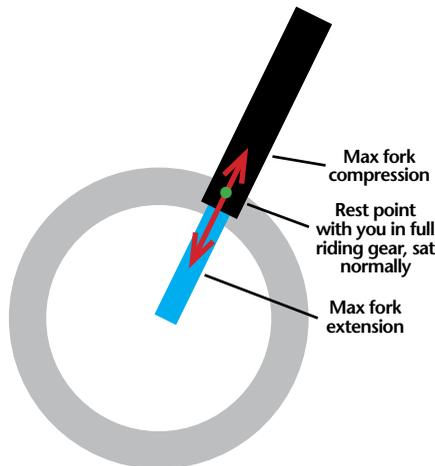
On a more practical note, a passenger weighs down the back of the bike, so to compensate for this you need to increase the rear preload (see right). If you don't, you'll make the bike more likely to run wide in corners, and you'll use up a lot of rear suspension travel.

You're also going to need more tyre pressure, and perhaps a headlight adjustment both to avoid dazzling other road users, and to see where you're going at night. The extra weight will make the bike handle more clumsily, and usually increase stopping and accelerating distances too.

Your instructor should cover all pillion-related matters, but ask to ride on the back as part of your course; the experience will help when it comes to answering the examiner's questions.

### How to understand preload

Preload is the amount by which you pre-tension the suspension's springs

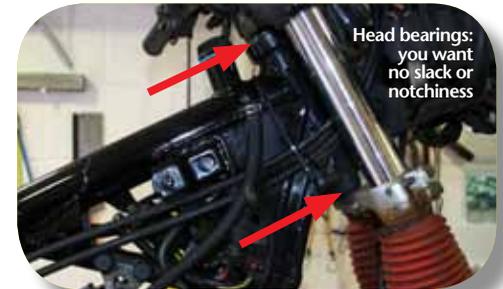


## 11. Mechanical checks

The basic C-BOLTS checks on p?? should be second nature before you even take the test. They're essential before any ride. On a larger bike we'd also recommend three more checks:



- Suspension damping and preload – is it right for the kind of riding you're doing?



- Steering head bearings – are they smooth and totally free of slack?



- Throttle and clutch controls – are they smooth and unaffected by steering movement?