

- ▶ **Have you ever started an overtake and wished you hadn't?**
- ▶ **Did you work out exactly what went wrong to cause the problem?**
- ▶ **Do your overtakes sometimes feel hurried or untidy?**

Many serious and fatal crashes happen during overtaking, but with a systematic approach it can be conducted safely and smoothly with minimal risk. A well planned and executed overtake is very satisfying but there are several things to consider in order to achieve this.

This free Hugger fact sheet is not a substitute for training but it may help you to make overtaking easier and safer.



Hugger

Please note: THIS DOWNLOAD IS NOT AIMED AT LEARNER MOTORCYCLISTS, it is intended for post-test riders only and for general advice. Learners must follow their instructor's advice until they have passed their test and gained some experience. These issues can then be explained and expanded on by a qualified post test instructor.

Disclaimer – The information contained in this download is based on established information laid down in the police Roadcraft manual and is intended as general advice only. Norfolk County Council accept no responsibility for any damage or injury howsoever caused by following this advice.



OVERTAKING

The potential dangers involved in overtaking are obvious but conducted correctly with the right mindset, they should be minimal. This fact sheet is not intended to be the definitive guide on the subject nor is it a substitute for training, but it is intended to cover some of the problem areas encountered during overtaking and to give you an insight into safe, progressive techniques and the benefits of quality training. For a deeper analysis read *Motorcycle Roadcraft – The Police Riders handbook*, published by TSO that is available at all good book shops.



Our advantages

Despite being vulnerable to road surface hazards, motorcyclists have several big advantages when it comes to overtaking. We need to make good use of them.

- Our height gives us a much better viewing position than most other vehicles, assisting in observation and planning. It's fair to say that riders of tourers or adventure bikes will be able to see more than sports bike riders tucked down behind the fairing but even sports bike riders will be able to get a better view than most car drivers.
- We can position our bike to get views that are not generally available to other vehicles, for example nearside views that in most circumstances would not be available to a car driver.

This photo shows a good nearside view compared to no view afforded to the other bike. A car driver could still get a nearside view but he/she would need to be much further back. On a bend like this if it had high banks or hedges the car driver would probably not be able to get a view down the nearside.

- Big performance advantages. Consider the type of car that you would need to be driving to have the same level of performance as a modern sports bike, but no amount of power will compensate for a badly planned overtake, at some point you will simply run out of road.
- With our narrow width we take up much less road space than other powered vehicles.
- Agility & manoeuvrability.



Overtaking

Why do riders sometimes get into difficulties?

The most common reasons are:

- Lack of concentration.
- Poor observation & planning – failing to assess all the hazards present including the potential of vehicles or hazards currently out of view.
- Poor judgement of speed & distance.
- Indecision - probably caused by one of the three points above.
- Aggressive mindset – risk taking, particularly on group rides.
- Making a line of three abreast.
- Poor gear selection – not giving the required drive.
- Follow - through overtakes.
- ‘Slingshot’ overtakes - building up speed before diving out for the overtake.



Overtaking

Things to consider for safe overtaking

Might I come into conflict with other vehicles?

There is a list of these in the highway code.

Will I cause another vehicle to brake or swerve?

Can I move back to my own side of the road with plenty of time and space to spare?

This requires good planning and judgement.

Am I ready to abandon the overtake if a new hazard comes into view?

Can I see far enough ahead to be sure it is safe?

Consider the possibility of high speed vehicles approaching out of a bend ahead that could take you by surprise.

Is it alright to overtake where I would make a line of three vehicles abreast?

A very bad idea indeed except where filtering between two lines of traffic travelling in the same direction!

- Remember the Highway Code advice - don't overtake in lane 1 of a dual carriageway if the driver in lane 2 refuses to travel at the speed limit. It can be very frustrating if drivers occupy lane two at speeds below the speed limit but crashes are borne out of frustration.

Is it OK to filter?

It is if you do it safely, it carries with it some obvious dangers but you can deal with these with the right mindset and techniques.
(Available as a separate download.)



Don't be encouraged to overtake by other road users moving over or indicating, trying to be helpful. **The decision to overtake is yours and yours alone.**

Let's look at some safe, progressive overtaking techniques as taught by the police to their riders and adopted by advanced riding groups as best practice...

Where you are able to overtake immediately



You are approaching a slower moving vehicle on a road with a good view ahead.

There are no oncoming vehicles or other hazards apart from the vehicle in front that you are gaining on.

Adopt a systematic approach. We will look at the police 'system' in detail and how it works in another download but here we will see how it works in a logical way when dealing with overtaking.

Don't make your decision to overtake too far back, the situation may well change before you get there, always consider additional hazards and identify your return gap. Work through things systematically:

Overtaking



Information/Observation – There is plenty to look for, for example:

- Road signs, lane markings, approaching vehicles, junctions, restrictions to view, sufficient space, a return gap, vehicles behind, consider a lifesaver check into the blind spot, indicators, relative speed of your bike and the vehicle you wish to overtake. Make sure you are not overtaking into a hazardous area. If in doubt **hold back**.

Position –



- Move into a **position** to confirm the view and line up the overtake, don't swerve out at the last minute, if the road layout allows, get out early to gain the best view beyond the vehicle that you are about to overtake.
- Consider if your approach **speed** is appropriate. Adjust your speed to complete the overtake comfortably within the space you can see is available to you.
- Select the most responsive **gear** for the speed you are travelling and one that will give you sufficient drive to complete the overtake safely– try and avoid changing gear mid-overtake.
- **Accelerate** smoothly and adjust your speed to return to the gap that you identified before you started.



This video illustrates overtaking where you can do so immediately



Overtaking where additional hazards require you to follow the vehicle before overtaking

As you are gaining on a vehicle ahead you find yourself prevented from overtaking it by a hazard. The hazard could be anything, for example

- Oncoming vehicles
- Junctions
- Hill crests
- Bends
- Solid white line system
- Surface hazards e.g. Mud

Before starting your overtake

Overtaking

Are there any road layout, junctions, Islands etc that I need to consider?

What is happening behind?
Is there a vehicle behind looking to overtake?

Is the vehicle ahead likely to overtake?

Do I have the power to complete the overtake safely in the distance I can see to be safe?

How fast will I be approaching other hazards once I have overtaken

How fast is the vehicle ahead travelling?

How fast is approaching traffic travelling?

Is there a possibility of oncoming high speed vehicles currently out of view?



Three Stage Overtake

The following technique is advocated in Motorcycle Roadcraft and is methodical, simple, effective and safe and also means that you will not miss easy overtakes (if that matters to you) but it does require good concentration, observation and a high level of planning. It is known as the **Three Stage Overtake**

Stage 1 The following position



This is a position that is a safe distance back from the vehicle in front which gives a good view to **observe** and to plan for the overtake. There are many common hazards to consider from this position including information about the vehicle ahead, the road ahead, the distance to be travelled to complete the overtake, return gap etc.

Nearside Views

As part of this observation phase you need to make the most use of your advantages, one of which is the ability to position your bike for better views of the road ahead. Take views on **both sides** of the vehicle if appropriate but consider safety issues if you take a nearside view:

- You have **no escape route** on the nearside, so allow yourself sufficient distance from the vehicle ahead.
- Because you have allowed a safe distance and are positioned to the nearside obtaining a view, **another vehicle may overtake** and drop in front of you. Be alert to this possibility, the driver may think you are inviting them to overtake by your road position, they will probably have no idea what you are doing or why – don't take it personally!
- **Don't surrender the nearside view** until you have gained the maximum benefit from it. For example, if you are travelling behind a large vehicle and have a nearside view, you can see as much as possible beyond this vehicle and an early view of anything that might cause the vehicle to brake. If, as the road starts to straighten, you surrender this view too early and move to the offside, you will have lost your 'window' on the road ahead and have no view along the offside at that point in time. You will have to wait until the road completely straightens before gaining the offside view then looking to move out for the overtake.



An alternative would be to remain where you were, keeping your view on the road ahead, until the road straightened and then, making the appropriate rear observations, move over towards the offside of the vehicle knowing that a view is immediately available to you when you get there.

- **Never go out for an overtake on a nearside view alone, you must confirm the offside view before moving out no matter how convinced you are that there is nothing coming the other way.**

Stage 2 The overtaking position



This is a **position** closer to the rear of the vehicle and reduces the time required to safely complete the overtake to a minimum. The precise position is variable and depends on the circumstances, the view you have and what other hazards there might be to cause the vehicle in front to brake.

Since you have less time to react, it is advisable only to move into this position when a safe overtaking opportunity seems likely. Drop smoothly back to the following position if, having got there, another hazard is spotted and there is no longer a safe opportunity.

Don't forget rear observations and if necessary a blind spot check but be careful about looking over your shoulder and taking your eyes off the vehicle in front when close behind it, consider doing this check a little further back then relying on your mirrors.

Make your movements up to or back from this position smoothly, so that you don't antagonise the driver of the vehicle in front.

Having got yourself into the overtaking position, match your **speed** to that of the vehicle ahead and select the most responsive **gear** to give you good drive for the overtake. If you can avoid having to change gear during the overtake do so but this may not always be possible. Don't hang onto a lower gear simply to avoid using the brakes when you come into your return gap, pick the right gear to give you the power and drive. You may be able to skilfully judge your return to the nearside using acceleration sense but if you need to use the brakes, do so. That's what they're there for!

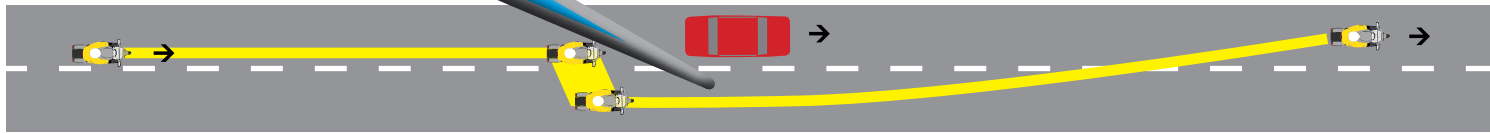


The video shows the benefit of using the narrow width of the motorcycle to obtain nearside views.

Overtaking



Stage 3 The overtake



At this stage you will have

- Identified a safe section of road to overtake.
- A return gap.
- Assessed the speed of oncoming vehicles.
- Made the necessary rear observations.

Having made all the checks you then need to move out onto the offside of the road but **not yet accelerate**. This is probably the main aspect of this technique that people find different if it is new to them so we will examine the reasons why it is done.

It will give you the following advantages;

- You are in an ideal position to make the final check and confirm that the overtake is definitely still possible and safe. This final confirmation is very important for safety. Depending on the road layout it may also extend your view much further down the road.
- As a consequence of this, should an additional hazard be seen, you can just move smoothly back into line again. If you start to overtake from behind the vehicle and decide to abandon it once you are out there under power, you will have to lose speed before you can move back behind the vehicle.

- When you apply the power you will do so with the bike pointing in the direction you want to go rather than diagonally across the road giving greater stability as you accelerate.
- On wet greasy roads with polished wheel tracks, you can cross over the white lines, reflective road studs and smooth polished tarmac onto a surface with more grip before applying the power, improving stability and drive.

Consider the need for a signal if there is any other road user that is likely to benefit from it.

Accelerate briskly through the overtake to reduce the time spent on the offside of the road.

Move smoothly back into your return gap using acceleration sense to roll the speed off as you come in, finishing off with the brakes as necessary.



The video shows using the Three Stage Overtake where you have to take up a following position first

Overtaking



Your aim from the following position should be to move up smoothly and **time your arrival** at the overtaking position as the opportunity presents itself, for example as the oncoming vehicles clear, the junction passes or the bend finishes. If you wait in the following position until the overtaking opportunity is available, a perfectly safe overtake may pass you by because you have first to close the gap before starting the overtake. It may be that missing an overtake is not important to you but if it is, you need to plan the overtake properly. It needs to be a 100% safe overtake or leave it alone until it is.

Overtaking after bends



One good example of how this advanced planning and anticipation works to your advantage is overtaking after a bend. Local knowledge may assist identifying possible locations but good observation is vital. You need to read the clues that an opportunity might be developing using the wider views and limit point/vanishing point (see the cornering download for an explanation of limit point).

In the following video clips we see examples of overtaking just after a bend.



If the rider in any of the clips had remained in the following position until the bend was over and the full view available, the distance to cover would have been too great and the overtake unsafe. Perfectly safe overtakes were possible by good observation, anticipation and planning.



Overtaking a line of vehicles



If you are faced with a straight section of road with several vehicles ahead of you and no other obvious hazards, you may believe it is possible for you to overtake them all in one go before another hazard comes into view. It would be **most unwise** to set out with this pre-determined intent. You need to continually re-assess as you progress past the line of vehicles identifying new return gaps for the following reasons:

- You need to consider the possibility that any of the vehicles might also decide to overtake having missed you in their blind spot. Observe and re-assess as you progress through the overtake looking for signs of any of the vehicles preparing for an overtake, for example

A closing gap – A vehicle gaining on the vehicle ahead, building up momentum to 'slingshot' the overtake.

Movement towards the centre line – Where the driver is probably confirming the view before starting to move out for the overtake.

Head movement – The driver is actively looking for a view

An indicator – if you are lucky!

Remember – You will be keeping a reasonable distance from the vehicles you are overtaking so at some stage you will inevitably be in the driver's blind spot.

- You must always know where you are coming back in before you start the overtake and not trust to luck that someone will allow you in. Having arrived at the return gap that you identified, you can re-assess without coming in but move on to the next safe return gap.
- You may have been convinced at the outset that no other hazards were present other than the vehicles ahead of you but things change and you need to be ready to abandon the overtake if something else comes into view (not necessarily another vehicle).

Remember, before you start an overtake you must consider everything that you can see, everything you cannot see and what might happen as a result of that information



The video shows overtaking a line of vehicles

OVERTAKING



Overtaking near junctions

A significant number of crashes are caused when motorcyclists overtake at or near junctions. Many of these result in serious or fatal injuries where the motorcyclist has been overtaking a vehicle that is turning right.

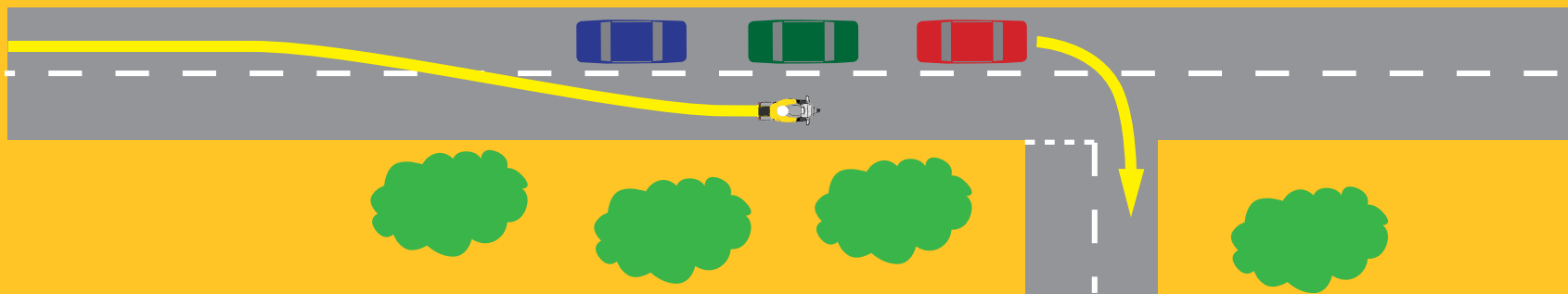
It is a significant enough problem to justify a more detailed examination of what goes wrong.

An aggressive mindset and determination to get past is potentially lethal as the rider will no longer be capable of assessing the hazards or the risks. If we exclude mindset issues, the main cause is likely to be poor observation and planning.

Clues

Regardless of whether the vehicle is indicating, the **speed** that it is travelling is a big clue to whether or not it is likely to turn. The main problem however is the rider failing to identify that there is a **junction, driveway or farm gate** that the (inevitably) slow moving vehicle could turn in to. Very careful observation is required.

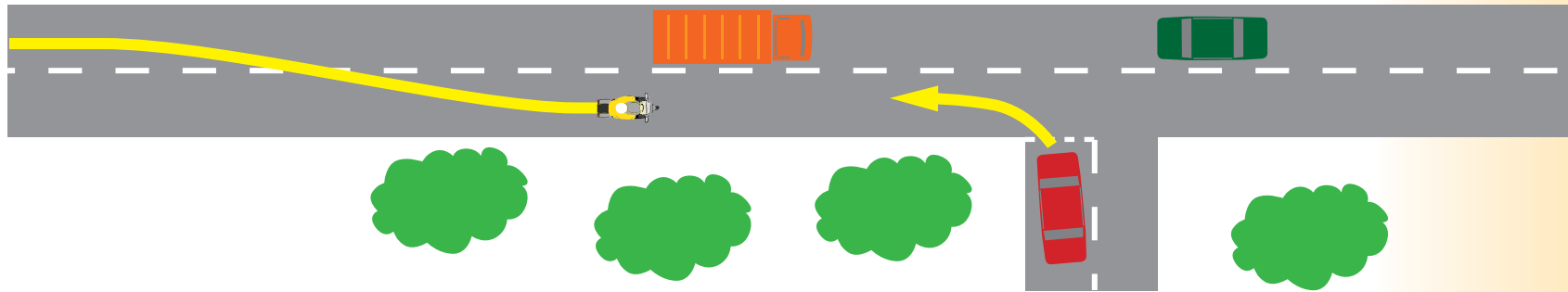
The following two photographs illustrate the potential problem of overtaking slow moving vehicles. Good observation and restraint will be required.



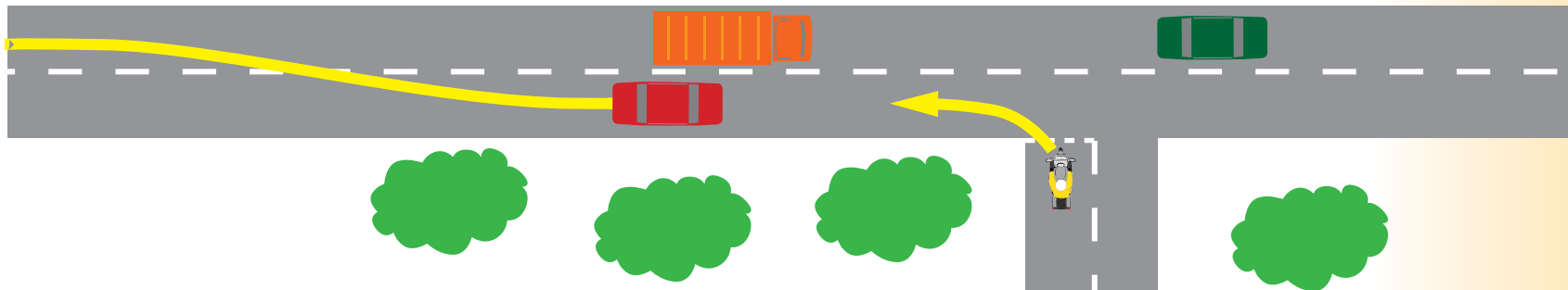
Overtaking



Many drivers arrive at the give way lines and look right, where they expect the danger to be coming from, but only look left once they start to pull out. If a motorcyclist is overtaking at this point a head on collision is very likely. If you are not overtaking near junctions, this will be of no concern to you.



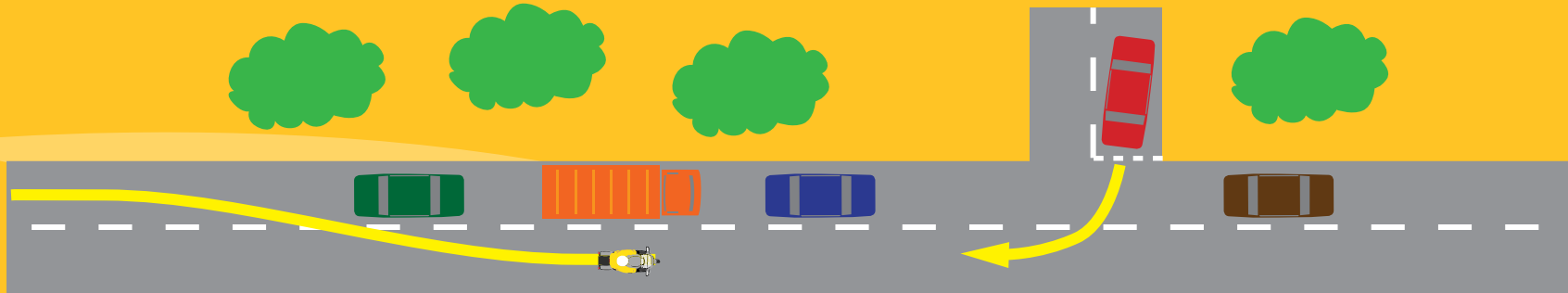
It is worth bearing in mind the reverse of this situation where, if you don't look left before pulling out, you are trusting to luck that nobody is overtaking even though they shouldn't be.



Overtaking



Overtaking traffic on the approach to a nearside junction is extremely dangerous. Crashes of this nature are by no means confined to young inexperienced riders.



Overtaking



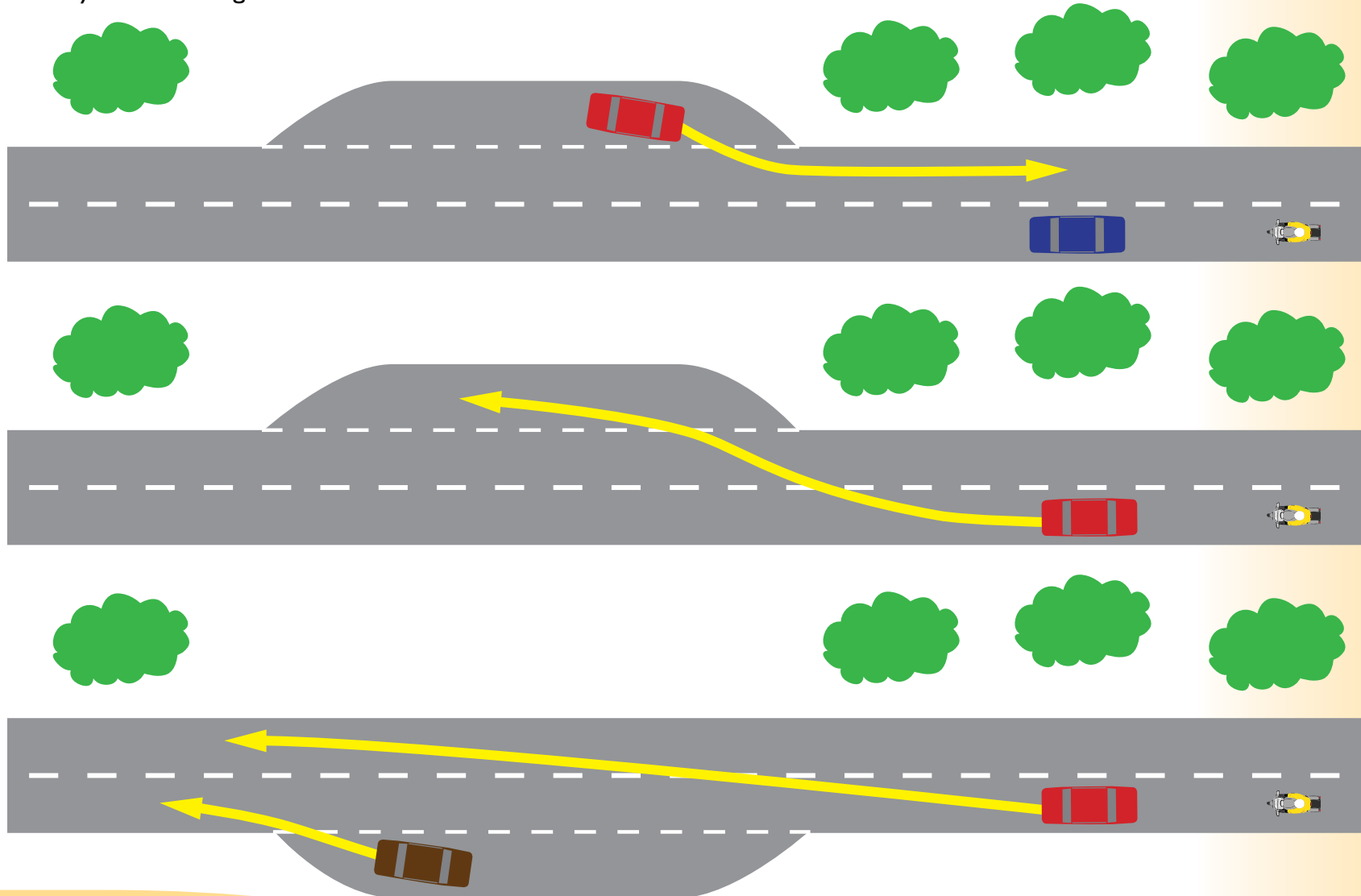
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Laybys

Laybys should be treated with as much caution as junctions as the movement of vehicles in and out of them can cause major problems if a motorcycle is overtaking.



Overtaking



Follow through overtakes

Follow through overtakes are by no means a problem exclusive to group rides but they are often associated with them. The advice here is...

'Ride You Own Ride'

If the vehicle ahead has started an overtake you need to hold back until it has cleared your return gap. You need to know your return gap is clear **before you start the overtake**. If you follow through behind the vehicle you will be hoping that it continues at its current pace and doesn't take up your return gap. You do not want to rely on another road user to do the right thing to help you out.

Do not trust that someone else has correctly assessed the overtake for you, it may well be a one bike/car overtake.



The first drawing here shows a perfectly safe one bike overtake but a potential disaster if the blue bike was intent on following the yellow one through the gap rather than dropping in between the goods vehicles as shown. This is a classic group ride problem.



This drawing shows the problem of not allowing a vehicle to clear your return gap first, leaving you exposed to the oncoming vehicle.

The decision to overtake is always yours and yours alone, if in doubt, hold back, another opportunity will come along soon.



Overtaking stationary vehicles



Consider:

- Pedestrians crossing between vehicles – Look for signs of feet beneath large vehicles & vans as you approach.
- Ideally allow an opening door's width from the parked vehicle - If oncoming vehicles reduce the space available to you, you may need to reduce speed. Don't move away from one hazard and put yourself at risk from one on the other side.
- Good observation should in most cases allow you to scan the line of vehicles and see if there are any drivers in them or vapours coming from the exhaust pipe.

Overtaking stationary, queuing traffic is covered in our filtering download.

Summary

We have looked at some of the major problems that occur during overtaking and some techniques to ensure we can overtake safely. We would suggest you to get some quality assessment or training to expand on the points covered. Read 'Motorcycle Roadcraft' for a deeper look at the subject and how to apply the police 'system of motorcycle control' to overtaking.

Overtaking does not need to carry significant risk. Correctly observed, planned and executed, the risks are very low.

Make your progress safely and smoothly and take satisfaction from doing it well.

Why not take part in a Norfolk Constabulary Safe Rider (Bikesafe) course? It's fun and cheap, or take the 90 minute 1:1 Hugger's Challenge assessment (Enhanced Rider Scheme) which brings insurance benefits. If you are concerned at overtaking in high winds, the i2i course is the one for you where you will learn so much about bike dynamics, stability, examining the physics of what is happening, all in a safe environment away from the public roads.

Details are available on www.think.norfolk.gov.uk you are welcome to email us on roadsafety@norfolk.gov.uk or call **01603 638115**.

