Bicycle fatalities and injuries are on an upward trend, according to the National Highway Traffic Safety Administration data for 2005. Nationally 784 cyclists died, a 7.8% increase over the previous year and a 26% increase over two years ago. Also, 45,000 cyclists were injured across the nation, up 9.8%. Statewide 115 cyclists were killed, a 4.5% increase over last year and a 8.5% increase over two years ago. Sacramento County had 6-15 cyclists fatalities in 2005. Almost half of the 784 cyclists killed nationwide, or 380 cyclists, were killed at night. Head injuries are involved in 70% of all fatal bike crashes. Properly fitted bicycle helmets mitigate head and brain injuries by 80 to 85%.

Who is at Fault? (From the League of American Bicycists BikeEd Instructor Manual):

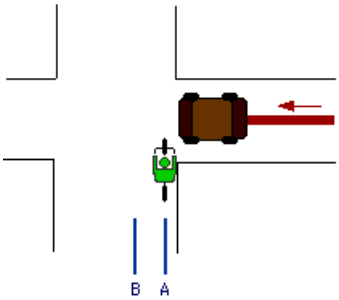
Bicyclist	**Wrong Side to the Street Riding – Facing Traffic**	**14%**
Motorist	Left turn in front of the bicyclist	13%
Motorist	Right turn in front of the bicyclist	11%
Bicyclist	**Left turn from the right side of the road**	**11%**
Bicyclist	**Failure to yield from driveway**	**9%**
Bicyclist	**Running a stop sign or signal**	**8%**
Motorist	Running a stop sign or signal	8%
Motorist	Opening a car door into path of the bicyclist	7%
Motorist	Failure to yield from driveway	6%
All other bicycle/motorist crashes		8%

How to Not get Hit by Cars

Reprinted with edits from www.bicyclesafe.com

Collision Type #1: The Right Cross

A car is pulling out of a side street, parking lot, or driveway on the right.



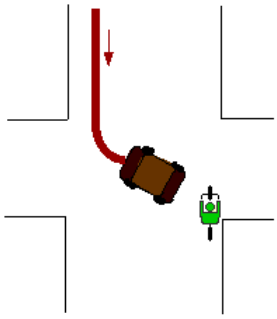
How to avoid this collision:

1. Get a headlight. If you're riding at night, you should absolutely use a front headlight. Helmet-mounted lights are the best, because then you can look directly at the driver to make *sure* they see you.

2. Ride further left. Notice the two lines "A" and "B" in the diagram. You're probably used to riding in "A", close to the curb, because you're worried about being hit from behind. But take a look at the car. When that motorist is looking for traffic, he's not looking in the area closest to the curb; he's looking in the MIDDLE of the lane. The farther left you are (such as in "B"), the more likely the driver will see you. Also, if the motorist starts pulling out, you have a more options: go even FARTHER left, or speed up and out of the way, or roll onto their hood.

Collision Type #2: The Left Cross (13%)

A car coming towards you makes a left turn right in front of you, or right into you.



How to avoid this collision:

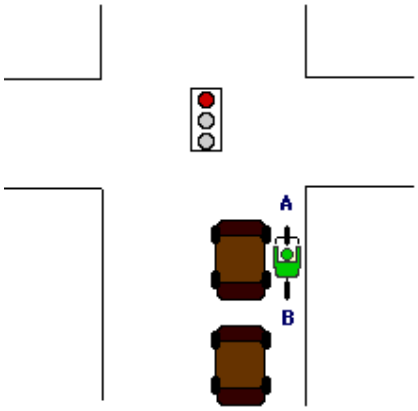
1. Don't ride on the sidewalk. When you come off the sidewalk to cross the street, you're invisible to turning motorists.

2. Get a headlight**.** If you're riding at night, you should absolutely use a front headlight. It's required by law anyway.

3. Wear something bright, even during the day. It may seem silly, but bikes are small and easy to see through even during the day. Yellow or orange reflective vests really make a big difference.

4. Don't pass on the right. Don't overtake slow-moving vehicles on the right. Doing so makes you invisible to left-turning motorists.

Collision Type #3: The Right Hook (11%)

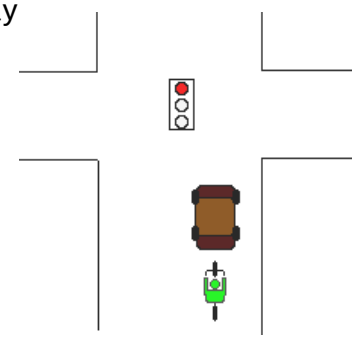


You stop to the right of a car that's waiting at a red light or stop sign. They can't see you. When the light turns green, you move forward and they turn right into you.

How to avoid this collision:

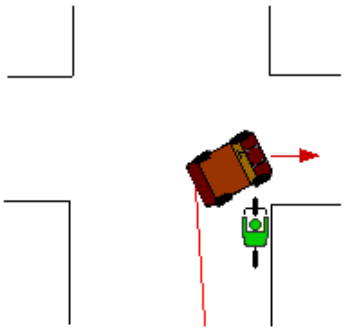
Don't stop in the blind spot. Simply stop at either point A in the diagram (where the first driver can see you), or at point B, behind the first car and far enough ahead of the second car so that the second driver can see you clearly.
If you chose spot B, then when the light turns green, DON'T pass the car in front of you -- stay behind it, because it might turn right at any second. If it doesn't make a right turn right away, it may turn right into a driveway or parking lot unexpectedly at any point. (NEVER pass a car on the right!)

Another option is Simply stop BEHIND a car, not to the right of it, as per the diagram to the right. This makes you very visible to traffic on all sides, especially the car behind you.



By the way, *be very careful when passing stopped cars on the right* as you approach a red light. You run the risk of getting doored by a passenger exiting the car on the right side, or hit by a car that unexpectedly decides to pull into a parking space.

A car passes you and then makes a right turn directly in front of you. They think you're not going very fast because you're on a bicycle. Even if you have to slam on your brakes to avoid hitting them, they often feel they've done nothing wrong.



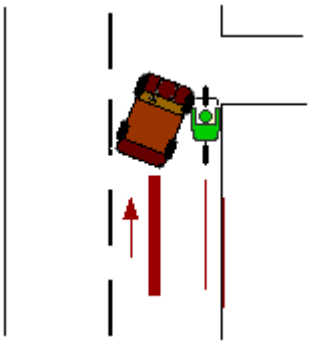
How to avoid this collision:

1. Don't ride on the sidewalk. When you come off the sidewalk to cross the street you're invisible to motorists.

2. Ride to the left. Taking up the whole lane makes it harder for drivers to pass you to cut you off or turn into you. Don't feel bad about taking the lane: if motorists didn't threaten your life by turning in front of or into you or passing you too closely, then you wouldn't have to. If the lane you're in isn't wide enough for cars to pass you safely, then you should be taking the whole lane *anyway.*

You're passing a slow-moving car (or even another bike) on the right, when it unexpectedly makes a right turn right into you.

How to avoid this collision:

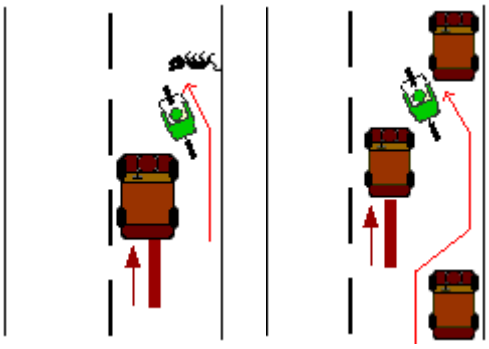


1. Don't pass on the right. This collision is very easy to avoid. Just don't pass any vehicle on the right. Note that when you're tailing a slow-moving vehicle, ride behind it, not in it blind spot immediately to the right of it. Even if you're not passing the car, you could still run into it if it turns right while you're right next to it. Give yourself enough room to brake if it turns.

2. Look behind you before turning right. Look behind you before making a right-hand turn to make sure a bike isn't trying to pass you. (Also remember that they could be coming up from behind you on the sidewalk while you're on the street.)

Collision Type #4: The Rear End (very rare)

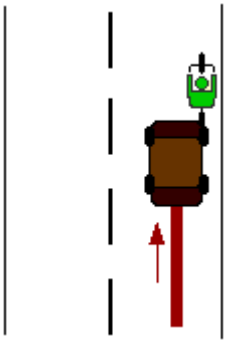
You innocently move a little to the left to go around a parked car or some other obstruction in the road, and you get nailed by a car coming up from behind.



How to avoid this collision:

1. Never, ever move left without looking behind you first. Some motorists like to pass cyclists within mere inches, so moving to the left could put you in the path of a car. Practice holding a straight line while looking over your shoulder until you can do it perfectly.
2. Don't swerve in and out of the parking lane. Don't be tempted to ride in the parking lane when there are no parked cars, dipping in and out of the traffic lane. This puts you at risk for getting nailed from behind. Instead, ride a steady, straight line in the traffic lane.
3. Use a mirror. If you don't have one, go to a bike shop and get one now. You should always physically look back over your shoulder before moving left, but having a mirror helps you monitor traffic without constantly having to look behind you.

A car runs into you from behind. This is what many cyclists fear the most, but getting rear-ended in the daylight is rare.



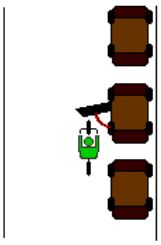
How to avoid this collision:

1. Get a rear light. Bike shops have red rear blinkies for $15 or less. These kind of lights typically take two AA batteries, which last for months. **I can't stress this item enough: If you ride at night, get a rear light!**
2. Get a mirror. Trust me, once you've ridden a mirror for a while, you'll wonder how you got along without it. My paranoia went down 80% after I got a mirror. If you're not convinced, use a mirror for a month, then take it off and ride around. Do you keep glancing down to where your mirror was? Do you feel unsafe without it?

3. Wear a reflective vest or a safety triangle. When you notice a motorist approaching, straighten up into a vertical position to be more noticeable.
4. Don't hug the curb. This is counter-intuitive, but give yourself a little space between yourself and the curb. That gives you some room to move into in case you see a vehicle in your mirror approaching from behind.
5. Choose slow streets. The slower a car is going, the more time the driver has to see you.
6. Choose wide streets. Ride on streets so wide that a car and a bike can fit side by side.

Collision Type #5: The Door Prize (6%)

A driver opens his door right in front of you. You run right into it.

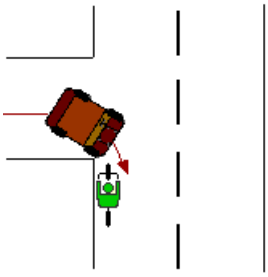


How to avoid this collision:

Ride to the left. Ride far enough to the left that you won't run into any door that's opened unexpectedly. You may be wary about riding so far into the lane that cars can't pass you easily, but you're MUCH more likely to get doored by a parked car if you ride too close to it than you are to get hit from behind by a car which can clearly see you.

Collision Type #6: The Wrong-Way Wallop (14%)

You're riding the wrong way (against traffic, on the left-hand side of the street). A car makes a right turn from a side street, driveway, or parking lot, right into you.



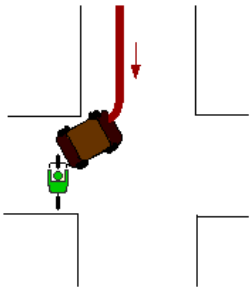
How to avoid this collision:

Don't ride against traffic. It may seem like a good idea because you can see the cars better, but it's not. Cars which pull out onto your street aren't expecting traffic to be coming at them from the wrong way. They won't see you, and they'll plow right into you.

Also, cars will approach you at a much higher relative speed. If you're going 15mph, then a car passing you from behind doing 35 approaches you at a speed of only **20** (35-15). But if you're on the wrong side of the road, then the car approaches you at **50** (35+15), which is 250% faster! Since they're approaching you faster, both you and the driver have lots less time to react. And if a collision does occur, it's going to be ten times worse.

Collision Type #7: The Crosswalk Slam

You cross the street at a crosswalk, and a car makes a right turn, right into you.



How to avoid this collision:

1. Get a headlight. If you're riding at night, you should absolutely use a front headlight.

2. Don't ride on the sidewalk in the first place. Crossing between sidewalks can be a fairly dangerous maneuver. If you do it on the left-hand side of the street, you risk getting slammed as per the diagram. If you do it on the right-hand side of the street, you risk getting slammed by a car behind you that's turning right. You also risk getting hit by cars pulling out of parking lots or driveways. These kinds of accidents are hard to avoid, which is a compelling reason to not ride on the sidewalk in the first place.

MORE GENERAL TIPS, also from www.bicyclesafe.com

Avoid busy streets. One of the biggest mistakes that people make when they start biking is to take the exact same routes they used when they were driving. It's usually better to take streets with fewer and slower cars. **Cross** the busiest streets rather than **traveling** on them.

Take the whole lane when appropriate. It's perfectly legal for you to take the lane when appropriate. California Vehicle Code says that cyclists have to ride as far to the right as is "practicable". Here are some things that make it *impracticable* to ride to the extreme right:

1. **You're in a heavy traffic area with lots of side streets, parking lots, or driveways ahead and to your right.** Cars turning left won't see you because they're looking for traffic in the *middle* of the road, not on the extreme edge of the road.
2. **Cars are passing you too closely.** If the lane is too narrow for cars to pass you safely, then move left and take the whole lane. Getting buzzed by cars is dangerous.
3. **Cars are parked on the right-hand side of the road.** If you ride too close to these you're gonna get doored when someone gets out of their car. Move left.