

If you're considering bike commuting, there are several aspects to consider: bike maintenance, how to get from Point A to Point B, what to do in an emergency, getting there comfortably, how to stay safe in traffic situations, and how to secure your bike. There are many excellent resources available online and in print for additional information.

Getting your bike ready to go

Whatever type of bike you ride, it needs to be reliable enough to handle your daily commute without needing constant mechanical attention. If you haven't ridden in a while, take your bike to a bike shop for a tune-up to ensure that it's in good working order and your tires aren't crumbling from dry rot and ready to flatten at the first pothole. Bike maintenance costs a lot less than car repair.

If the bike is ready to go, do you know the recommended pressure for your tires? Properly inflated tires are your first defense against flats. If the recommended pressure range on the tire's sidewall is 50-80 psi, keeping it closer to 80 offers better protection. If you rarely encounter broken glass and other tire hazards, and you prefer a softer ride, a pressure near the low end of the range may be okay. Lower pressure offers a gentler but slower ride compared to higher pressure. You can check pressure if your pump has a built-in gauge, or if you have a separate handheld gauge.

Using compressor-powered air pumps at gas stations is an easy way to explode your bike tires if you use them for more than a few seconds at a time. These pumps are designed to quickly fill car tires, which hold a much higher volume of air than a bike tire. If you use one, go cautiously to avoid overinflation. A good quality floor pump with a gauge is a worthwhile investment if you're going to ride regularly. You can use it for your car, too. Many of these pumps work with both Presta (skinny) valve stems and Schrader (fat) valve stems. Schrader is the same type you'd find on a car tire.



Almost any type of bike can be suitable, as long it's comfortable and safe, and you're able to secure it adequately at your destination. An average bike may be well designed to reliably carry you and your load if the total weight on the bike is under 200 lbs. Less sturdy bikes may not be as durable or reliable under heavier loads. If your wheels keep going out of true or you keep breaking spokes, a sturdier wheel (such as a cyclocross or tandem wheel) may be a good investment. If you're taking your wheel to the shop once a month or more for truing, a new wheel (even a \$200 wheel) will save you money by year's end. Kevlar tire liners or Kevlar belted tires are worthwhile if you need to ride in areas where broken glass is a frequent problem. Liners are cheaper, but require correct installation and tire pressure needs to be near the max to prevent flats. Kevlar belted tires are somewhat more forgiving in terms of installation and maintenance.

Lights and helmets

A white headlight and red reflector or tail light are required at night under Chicago and Illinois law. Even if street lighting is adequate for you to see where you're going, drivers might not see YOU. If you're hit by a driver because you're not using lights and they can't see you, you may be out of luck in an insurance claim or lawsuit. Already got lights? Check them regularly to make sure that the lenses are clean and batteries aren't dead or running low.

Here's the Illinois law: *625 ILCS 5/11-1507 Lamps and other equipment on bicycles. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of **at least 500 feet** to the front and with a **red reflector** on the rear of a type approved by the Department which shall be visible from all distances from **100 feet to 600 feet** to the rear when directly in front of lawful lower beams of headlamps on a motor*

vehicle. A lamp emitting a **red light** visible from a distance of **500 feet** to the rear may be used in addition to the red reflector.

<http://lawyerjimfreeman.com/blog/2007/09/01/headlights-and-law>

Helmets aren't required by law, but they're a good precaution, given the traffic and pavement conditions we often face. There's a wide variety of styles available, from sporty to stylish. No matter how careful and capable you are as a cyclist, it only takes one second of inattention, one pothole you don't see, or one careless driver. Helmets are cheap insurance against what a head injury could cost you.

Carrying stuff

Many of us start out carrying stuff in a backpack. It's a reliable, simple solution, but it can make you sweaty and affect your balance if the load is heavy enough. Panniers and other bike-mounted bags lower your center of gravity, making your ride more stable and less sweaty. There are many different options available at a variety of price points. Waterproof models are great, but if you can't afford them or don't regularly need that feature, wrapping your stuff in plastic bags or baggies inside a non-waterproof bag works, too. Rain covers are available for some bags. An open-top grocery pannier can serve multiple needs.



Comfort

If your ride is 5 miles or less, you may be able to ride comfortably in your work clothes without getting sweaty. Longer rides are easier in casual, breathable clothes – either bike specific or something without heavy seams that may chafe and cause irritation. Having a water bottle handy will help keep you more comfortable during and after your commute. Here's a good resource on clothing and other aspects of bike commuting: <http://www.activetrans.org/tricks-tips>

Look first

Some cyclists prefer looking over their shoulder. Mirrors can be useful for seeing what's approaching without completely taking your eyes off the road ahead – and potential pothole and dooring situations. Doing both before making a lane change or turn is a smart way to avoid crashes. Different types of mirrors are available, mountable on your glasses, helmet or handlebars. Convex mirrors offer a wider viewing angle than flat ones. They can make cars appear further away than they actually are, so there's a slight learning curve. Using a combination of mirror and looking back offers the most information. This is similar to using rearview and side mirrors in a car in combination with turning your head to look – completing the view that's partially obstructed by blind spots. If you see a driver gaining on you who seems distracted, a quick friendly wave can get them to notice you and avoid hitting you.



Choosing a route

There is no one perfect route for every cyclist. Your best route may be very different from where you'd go if you were driving a car or riding a bus. Scouting out potential routes on the weekend may be easier and less stressful than trying a route for the first time on a workday. A weekend trip won't offer the same traffic conditions, but not having to arrive at a specific time will allow you to look at alternatives if your first idea didn't quite work. It will give you an approximate idea of how much time to allow for your actual commute.

Routes with fewer left turns offer fewer conflict points and reduce your chances of an accident. If you're riding on quieter streets, make sure they have stop lights or all-way stop signs at major streets so you can cross safely without long waits. Sometimes different morning and evening traffic patterns, one-way streets, left turns or street closures may make different routes to and from your destination a good idea. Starting out on quieter streets allows a little time for your muscles to warm up, making the rest of your ride more comfortable.

If you have a choice between a street where dooring is a significant risk and a nearby street where there's space to avoid the door zone, opt for the lower risk when possible. On streets where stoplights are timed for a green wave at speeds of 20 mph or less, you'll need to stop less often, making your trip faster and less tiring, with fewer conflicts at intersections. Most accidents happen where traffic intersects – at driveways, alleys or street intersections. Being aware of all approaching traffic is a good first step to avoid collisions. http://en.wikipedia.org/wiki/Door_zone Find a route that offers you an acceptable balance between safety and travel time.

Wrong way is the *wrong way*

There are 4 good reasons NOT to ride against traffic on one-way streets. 1. Drivers aren't expecting oncoming traffic. 2. You and a driver have a lot less reaction time to avoid a possible collision, compared to passing situation. 3. The force of impact is greater in a head-on collision than an overtaking collision – basic physics at work. 4. The law is NOT on your side if you have a crash while violating the law. If you need to file an insurance claim or lawsuit against the driver, this hurts your chances of getting *anything* for your injuries or property damage.

Plans B and C

What if you get a flat tire or have a mechanical problem? Do you have the tools and ability to fix it? Carrying a simple repair kit can help you get going again. You may want to check out our bike maintenance demo outside.

And what if you can't fix it? Bikes are allowed on CTA and Pace buses at any time, so this can be a great Plan B. To take your bike home on a CTA train, you need to wait until at least 6:00 p.m., when the evening rush hour blackout period is done. If trains are too crowded to accommodate bikes, you might have to wait a little longer.

Get familiar with bike shops along your commute route, and near your home and job. You may be able to get simple emergency repairs during your lunch or after work – at least enough to get you home. For more complex repairs, you might have to leave it and use transit until the bike is fixed. If your bike is well maintained, those emergencies should be rare. Plan for regular maintenance when weather is bad, or when you can spare the bike for a few days.

Traffic safety

Communicating well and riding in a predictable way can make you safer by helping drivers and pedestrians anticipate what you'll do. A friendly smile and a wave can defuse a lot of potentially tense situations. Your voice, a bike bell or a whistle can help get the attention of a distracted driver, a pedestrian or another cyclist to avoid a collision.

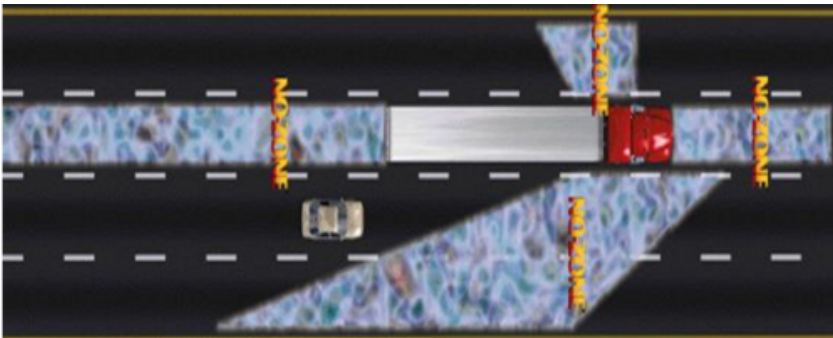
Buses and cabs require some special precautions. If you're riding on a bus route, watch for bus stop signs ahead. If a bus is approaching you from behind, a glance in the mirror or over your shoulder may tell you if it's pulling over to stop. If it's unclear what the bus is going to do, a quick wave to get the bus driver's attention, followed by pointing at the bus stop and shrugging your shoulders may be enough to get the bus driver to use a turn signal if s/he is going to stop. Passing a bus is generally safer on the left than on the right, where you could get trapped if the bus is pulling over.

A little bit of cooperation can go a long way. If the bus isn't stopping and needs to pass you, move to the right when it's safe to do so, and let it go. If you delay a bus, you're not just slowing down the driver. You could be making a lot of people late to their destinations.

Cab movements are more complicated. If a cabbie doesn't have a passenger, it's a safe bet that s/he is probably looking for one. If you see someone ahead waving at the cab, do NOT get between the cab and that potential fare. If a cab does have a passenger, that passenger's body language sometimes gives more clues than the driver about what will happen next. If you're not sure what a cab is going to do next, try to stay clear of it.

Buses and trucks require special precautions

Whether or not you choose to commute on a bus route, there will be times when you encounter buses or trucks in traffic. As a general rule, the bigger the vehicle, the bigger the blind spots. If you're behind the driver and you can't see either of the side mirrors, the driver **cannot** see you. If you're even with or ahead of the driver and can't see the driver's eyes if you're looking in that direction, assume that the driver **cannot** see you. Pass or slow down to minimize time spent in the driver's blind spots, especially where turns or lane changes are possible. If you're next to a large vehicle at a stoplight or stop sign, pass safely if you're able, otherwise do what you can to make sure that the driver sees you. Allow a LOT more space than you would near a car. The "no zones" shown in this illustration are a truck's blind spots, which may extend across more than one adjacent lane. CTA bus drivers are better able to see you in front of them than truck drivers due to larger windshields and lower seating position.



Remember that longer vehicles make wide right turns. If you're stopped at a light and a truck pulls up on your left, check for a right turn signal and make sure the driver sees you, getting clear of its path as soon as possible. Stop and get up on the sidewalk if the driver starts to turn before you're clear. If a large vehicle is behind you, remember that its stopping distance is MUCH longer than yours. If you need to make a sudden stop, make sure that you're not in its path.



To learn more about traffic safety, check out the traffic skills session outside after this presentation.

Road rage and accidents

If you ride in traffic regularly, sooner or later you will probably encounter road rage. Staying as calm and focused as possible can help you stay out of harm's way.

If a driver is actively trying to hit you, take evasive action if possible. Call out "Help! Call 911! Call police!" to attract the attention of witnesses. This may scare off some would-be attackers. Veering to the right (out of traffic) and hitting the brakes can sometimes get you out of the car's path. Duck between parked cars or walk your bike onto the sidewalk. If the driver is lying in wait or making repeated attempts, pull over and call 911. Be visible in doing it. Take refuge at a nearby open business, police or fire station, park or the house of someone you know if the threat is extreme. In over 15 years and 18,000 miles of riding in Chicago, I've only experienced this level of threat once. I escaped injury by ducking between parked cars. Hopefully you will never have this experience.

In case of a threat or accident, take a picture of the car and license plate if at all possible, or write down the license plate # and a description of the car. If you can take an in-focus picture, that's worth a lot more. When adrenaline is pumping, it's easy to get digits scrambled before you write them down. If there are witnesses, get their contact info. If you were physically harmed or threats were made, call 911 to make a police report and get medical attention if needed. If it's a cab, you should also call 311 and make a report to Chicago's Division of Consumer Affairs, which regulates cabs. They take these situations seriously and *will* follow up if you've got enough info to properly identify the cab.

Program the number of the Crash Support Hotline (**312-869-HELP (4357)**) into your cell phone. If you need assistance, they can connect you with the appropriate resources. <http://www.activetrans.org/crashsupport>

Locking up

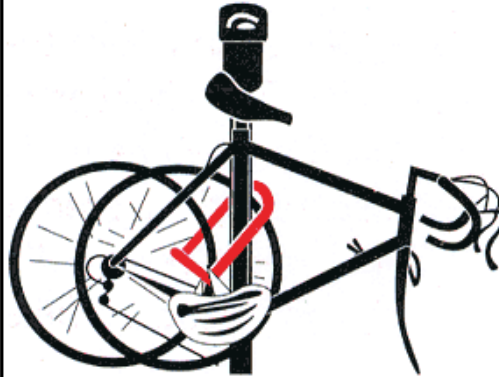
If your job offers indoor secure space for bike parking, your theft risk should be minimal. Some buildings have secure bike rooms accessible by a key or RFID card (often for a nominal fee). Most of us aren't that lucky. If you work near Millennium Park, the bike station might work for you. <http://www.chicagobikestation.com/>

When you lock up your bike, it's important to secure the frame AND both wheels. Cable locks are worthless against all but the most amateur thieves. Don't bother. No lock is 100% theftproof, but if you take reasonable precautions, your bike is likely to be waiting for you when you return. <http://www.activetrans.org/commute/tricks-tips/parking>

Don't lock up to a "sucker pole" – a sign pole that wiggles in its base when you grab it. A thief can easily remove it and steal your bike without touching your lock.

Locking without wheel removal

Position your bike frame and wheels so that you fill up or take up as much of the open space within the lock's U portion as possible. The tighter the lock up, the harder it will be for a thief to insert a pry bar and pry open your lock. Notice here that 2 different locks are used.

Locking with removing front wheel

Lock to a fixed, immovable object, a parking meter; or a permanent bike rack cemented or anchored into the ground. It must prevent a thief from slipping the locked bike off over the top of the pole. Beware of locking to items that can easily be cut, broken or removed.

These graphics are courtesy of Kryptonite - www.kryptonite.com

Using a U-lock to secure the frame and at least one wheel is a good start. If only one wheel is locked, supplement that by locking the other wheel with a mini U-lock or by looping a heavy cable through the other wheel and securing it with the main lock. Removing your front wheel to lock the frame and both wheels, as in the righthand picture above, is also a good practice. This page has a lot of good tips: <http://www.chicagobikes.org/public/theftprevention.php>

At home, don't leave your bike unlocked in a garage or condo/apartment basement storage area. Thefts from these locations are common. Always lock to a fixed, immovable object whenever possible.

These sites have examples of what NOT to do: <http://lockyourbike.wordpress.com>
http://www.flickr.com/photos/indread_coal/8401762110/in/pool-how-not-to-lock-your-bike

There are many excellent resources available online and in print for bike commuting and related topics. Here's a brief list: <http://www.activetrans.org/tricks-tips> <http://www.wordspacepress.com/ubtt.php>
<http://www.womenbikechi.blogspot.com/>
<http://www.michelinbicycletire.com/michelinbicycle/index.cfm?event=airpressure.view>

I hope your commute is a safe and satisfying one.

- Anne Alt