

Capital Region Bicycling Guide

2016

**Tips, Techniques, and Street Smarts to
make your ride safer and more rewarding**



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BENEFITS OF BICYCLING:

Health and Environment

WHY BIKE? HOW ABOUT...

Saving time, saving money, improving your health, helping your community, and because it's fun!

Saving time:

Most trips in town are less than two miles. This means even at an easy pace you can arrive in about 10 minutes, with no parking hassles.

Saving money:

Ever drive to the supermarket and then stop by the gas station on the way home? When you bike you can skip that second stop – you've already purchased your bike's fuel! The more trips you make by bike, the less money you have to budget for oil changes, tune-ups, tire replacement, parking, etc.

Improving your health:

The Surgeon General suggests that significant health benefits can be obtained by 30 minutes of moderate physical activity 5 days a week. Did you know that riding your bike can sharpen your mind and melt away stress too? You don't have to ride like a Tour de France cyclist to see and feel the positive effects of bicycling—you just need to do a few errands!

Helping your community:

So you want to reduce air and water pollution, create safer streets for kids, support a quieter neighborhood, lessen the need for expensive road repair and create a friendlier environment to live in, but you're a little short on time and money? Ride a bike!

GETTING STARTED:

Choosing a Bike

Making sure your bike fits you correctly can be crucial to the enjoyment of bicycling. Most bike shops will help you adjust your bike so it's set up for maximum comfort. Here are a few key considerations.

BIKE TYPE

There are many different types of bikes that fit into all different budgets and types of riding you plan on doing. Mountain bikes, hybrids, and comfort bikes with upright handlebars and wider tires are well suited to shorter trips on city streets while road bikes with drop handlebars and narrower tires may be a better choice for longer-distance trips.

Visit a local bike shop or two - they'll be glad to help you find a ride that's right for you.

BIKE SIZE

Most bike shops will help you figure out the best fitting bike for you. If your bike's frame is too tall, too short or too long, it can be very hard to adjust the other components to make you comfortable. Here are some general guidelines:

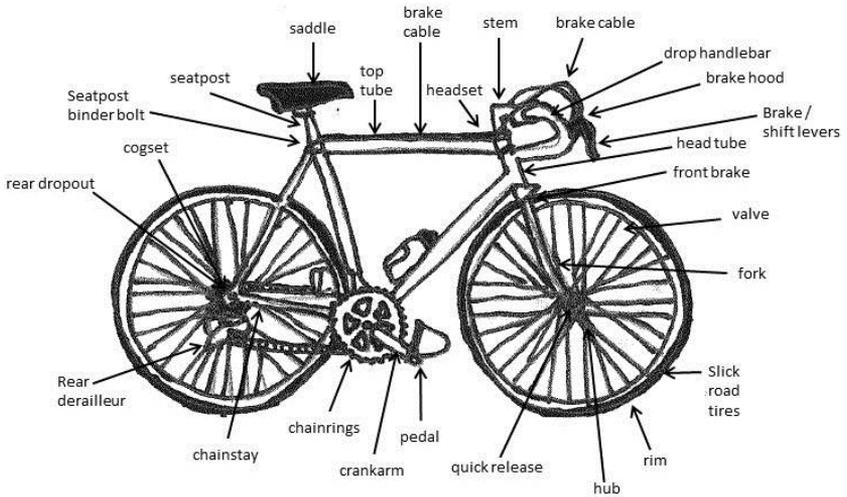
For on-road riding there should be about 1 to 2 inches between the top bar of the bike frame and your inseam.

For off-road riding, there should be about 3 to 4 inches between the top bar of the bike frame and your inseam.

GET TO KNOW YOUR BICYCLE

Sure, you know what pedals and handlebars look like, but do you know how all the pieces of a bicycle should work together to create a comfortable ride?

BIKE ANATOMY



ADJUSTING YOUR SEAT

The key adjustments to a seat are:

Angle: start out level, then find what is comfortable.

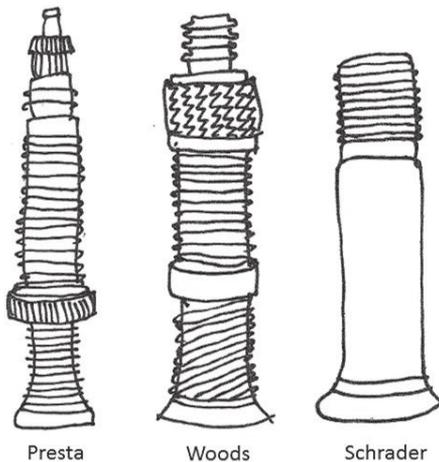
Height: with your pedal at the bottom of the pedal stroke and your heel on the pedal, your leg should be completely straight (then your leg will be slightly bent when riding normally).

Front to Rear: experiment until you find the most comfortable reach to the handlebars.

TIRE PRESSURE

Keeping tires correctly inflated helps avoid flats and makes your ride easier. The easiest way to check the pressure is using a pump with a gauge. If you look closely, the recommended tire pressure is listed on the side of your tire. If you don't have a gauge, pump up your tires so that it is difficult to push your fingers into the tire. There are two kinds of tire valves (see illustration), and most tire pumps are adaptable to either one but if you have Presta valves, it's a good idea to carry a valve adapter so you can fill up at a gas station or convenience store.

Inner Tube Valves



TIRE WEAR AND TEAR

It is common for tires to become worn after about 1,000 miles of riding. Tires can also get hard and brittle with age. Check the sides of your tires (the sidewalls) for significant cracks that may mean you need new tires. Frequent flat tires may mean the tread is thin, and the tire needs replacing.

WHEELS

A wheel should not wobble when it rotates. A wobbly, “untrue” wheel can rub against the brake pads and cause your brakes to perform poorly. To check, turn your bike upside down and spin the wheels while looking closely at the brake pads. The gap between the rim and the brake pad should stay relatively constant.

BRAKES

When you squeeze your brake levers, they should stop before they touch the handlebars. If they don't, tighten the brake cable. Your brakes may have a cable adjusting barrel that allows you to do this easily. Also, keeping your wheel rims free of dirt and grease will improve brake performance considerably. Periodically use an old rag to wipe the grime off the rims, especially when you've been riding during wet weather. Also, brake pads (the hard rubber pads that rub the wheel rim when you brake) wear down, and eventually wear out. Many have a “wear line” showing you when they need replacement. Ask your friendly local bike shop – brake pad replacement is relatively inexpensive, and good brakes for your bike are essential.

QUICK RELEASE

Many bikes have quick release levers on the wheels. Make sure that the levers are solidly locked (snug and curved in towards the bike). Inspect the quick releases visually every time you ride. If you have questions about how to lock a quick release lever, stop by your friendly local bike shop.

CHAIN

Lean your bike against a wall or, better yet, have someone hold it for you. Crouch beside the bike and slowly rotate the pedals backward, checking to make sure the chain turns smoothly. Wipe the grit off your chain with a rag then sparingly apply a chain lubricant and wipe off the excess with a rag. Replacing worn, rusty chains is a cheap way to prevent expensive damage to the gears.

ON TWO WHEELS:

Smart, Safe, and Legal

Traffic laws apply to bicyclists on New York State roadways. That means bicyclists must obey the rules of the road like drivers of any other vehicle and must be treated as equal users by all other vehicles. When cyclists follow traffic laws, other users can predict their actions. See the Resources section at the end of this booklet on where to find more detailed information on bike safety and the law.

WHERE TO RIDE

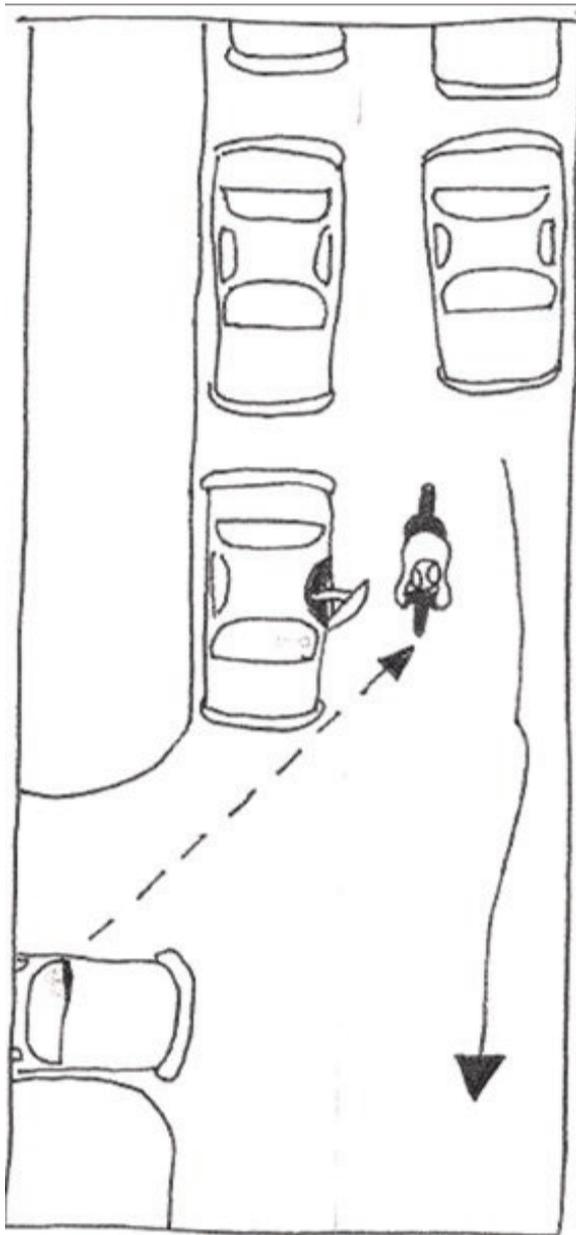
Ride in the direction of traffic. Motorists aren't looking for bicyclists riding on the wrong side of the road.

When moving slower than traffic, you're required to ride "near the right-hand curb or edge of the roadway or upon a usable right-hand shoulder" except when:

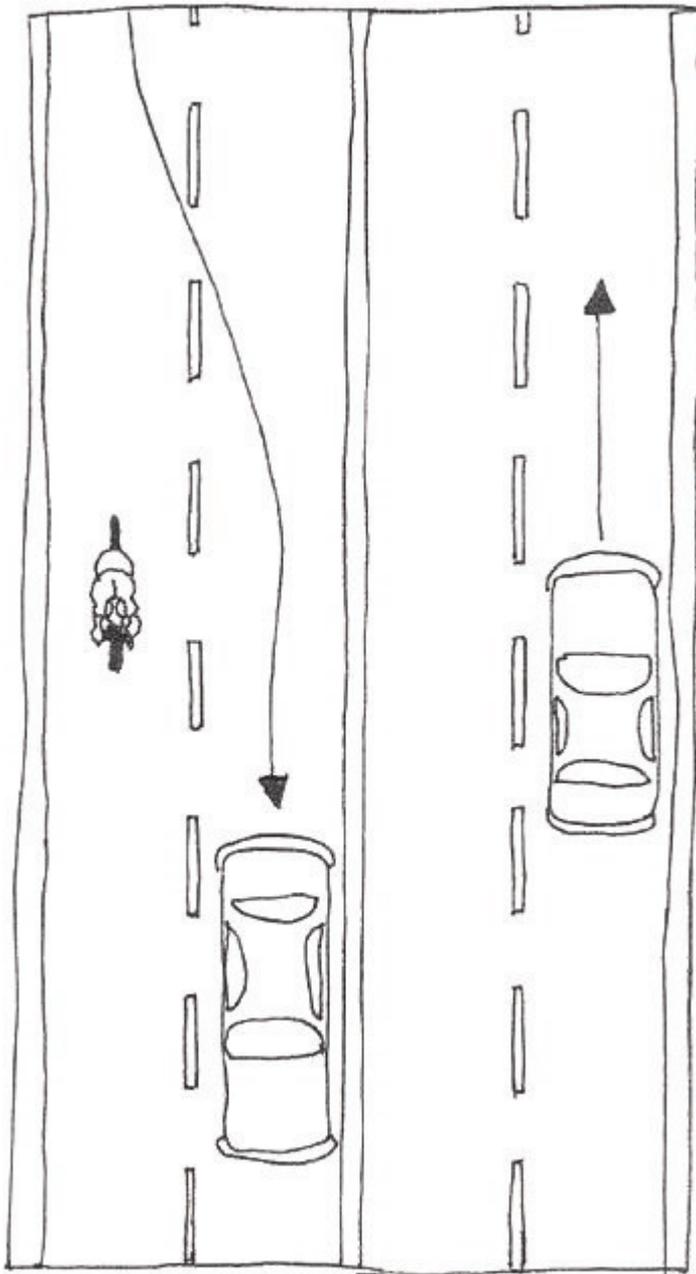
- ⇒ overtaking or passing another bicycle or vehicle,
- ⇒ preparing to execute a left turn,
- ⇒ avoiding impediments such as surface hazards or pedestrians,
- ⇒ the lane is not wide enough for safe passing by a motor vehicle.

In all of the above cases, a bicyclist may need to "take the lane" to avoid being squeezed up against the curb or parked cars by passing motor vehicle traffic. Maintain a straight line of travel, and avoid weaving in and out of the parking lane. This helps make you more predictable to other road users.

Bicyclists can ride side by side as long as they don't impede the normal movement of traffic.



Ride a safe distance from roadside hazards to increase your safety. When you ride correctly, a) the motorist in the driveway sees you, b) the motorist overtaking you will give you room, and c) the car door is no threat.



On a multilane road with narrow lanes, ride in the middle of the right lane.

TRAFFIC SIGNALS

Some traffic signals are triggered by electrically-charged wires buried in the pavement. When a vehicle stops over the wires, the metal disrupts the current, which sends a signal to the traffic signal control box. While a car is easily detected by the sensors, and a pedestrian can push a button to get the “walk” sign, a bicycle – with relatively little metal – must be in the right spot to be detected.

If you find yourself waiting at a red light for longer than seems necessary and there is no car coming to trigger the signal, check the pavement. If it appears to be cut out and filled in again with asphalt, try positioning your bicycle over the cut out area and leaning the frame down. This may help trigger the light in your favor. Alternatively, you could dismount and use the pedestrian controls to change the light.

EQUIPMENT REQUIREMENTS

Helmets are mandatory for everyone under the age of 14 years. For those 14 or older, helmets are a really good idea. If you ever need it – and we hope you don’t – you’ll be very glad to have it.

Bicyclists must use lights one half hour after sunset until one half hour before sunrise. You must have a white light on the front visible to 500’ to the front, a red light in the back visible to 300’ behind you, and at least one light must be visible to 200’ on either side.

Every bicycle must have a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

All bicyclists must have a bell or other audible device (but not a siren or whistle) that can be heard at least 100’ away.

HELMET

You should wear one every time you ride, no matter the distance.

Keep in mind that bicycle helmets are designed to withstand one crash only. Even if you cannot find a crack or any other structural damage on your helmet after a crash, replace it immediately, and never buy a used helmet.

Buy a helmet that meets the U.S. Consumer Product Safety Commission (CPSC) standard for bicycle helmets. A helmet must be constructed of thick, firm polystyrene or other shock-absorbing materials. The helmet should cover the top of your forehead and have only limited movement front to back and up and down, with a strong strap and fastener. Many helmets come with foam pads to be used for comfort and sizing, these should touch the head at front, back, sides, and top. The chin strap should be snug and meet just below the ears. Do not wear the helmet on the back of the head, and move all hair obstructions, like ponytails, out of the way.



- Has CSA, ASTM, CPSC or SNELL label inside



- No cracks, dents, or damage



- No hair in way
- No hats or kerchiefs



- Pads touch head at front, back, sides, and top
- Helmet sits level – about 2 fingers above eyebrow
- Chin strap is snug. Straps meet just below ears.
- Vision and hearing are not blocked.

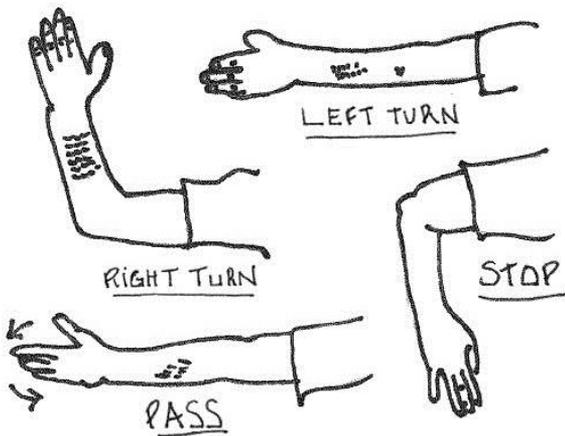


- Do not wear on back of head

SIGNAL YOUR INTENTIONS

Hand signals indicating a turn are required of cyclists for at least 100 feet before a turn. When approaching a turn you'll often need both hands for braking and your own general safety, so it is best to signal before approaching the turn. However, if you have an available hand then continuing to signal your intentions is a great way to foster harmony on the road. If you can, make eye contact with motorists to make sure they see you.

ARM SIGNALS FOR BICYCLISTS



PASSING

You're permitted to overtake and pass a motor vehicle on the right if you can as long as there is enough space to do so safely, without running off the road. Do so very carefully – if you have any doubts about whether it's safe, don't do it.

CAR DOORS

When riding next to parked cars, particularly in heavily used parking areas, be alert to car doors opening suddenly in front of you. Scan ahead to see if the driver or passengers are in the car on the street side. Give yourself a buffer by riding a little farther away from the “door zone.”

SIDEWALK AND MULTI-USE PATH RIDING

Do not ride on the sidewalk. Although it sometimes seems like a safer option, sidewalk riding is more dangerous than street riding. Be cautious if you must use the sidewalk and always yield to pedestrians.

Bicyclists can ride side by side except when passing other users. You should pass on the left and audibly signal your intention to do so, with your voice or a bell.

GETTING AROUND:

By Bicycle

PICKING YOUR ROUTE

Drivers know the quickest way to get from Point A to Point B, but don't usually take into account rough pavement, hills, road hazards or traffic. As bicyclists, all of these things are critical. The more frequently you ride a route the quicker you'll find more comfortable alternatives. If you haven't already traveled your route by bike, the following can help plan the most pleasant and comfortable route.

First, don't think like a motorist. Think like a cyclist. Pick the most enjoyable route. Is there a trail nearby that you can ride to avoid traffic? Or a park? Try using Google Maps for online bicycling directions. They give a good effort at steering bicyclists towards roads with bicycle markings (i.e. sharrows) and nearby trails and/or shared use paths. If you are unsure about the route, test it out on a weekend or a day off.

Find and talk to other bicyclists. Ask around your office for a commute buddy. You may find others that are interested in joining you or who are already biking the same route. Don't be afraid to search Twitter or Facebook too. Once you meet another bicyclist, talk about your route and/or commuting concerns. Perhaps they can offer advice or alternatives.

BIKES ON BUSES

CDTA has easy-to-use bike racks on the front of all regular route buses. Each rack can hold up to 2 bikes, including children's bikes but excluding tricycles and tandem bicycles. The racks are available on a first come, first serve basis.

How to Load Your Bike:

1. As the bus approaches, have your bike ready to load. Remove water bottles or any loose items that might fall off.
2. Wait until the bus has come to a complete stop. Signal to the driver that you will be loading your bike.
3. Make sure to always load and unload your bike from the curb side. Do not stand in or near oncoming traffic.
4. Always load the bike back of the rack first. To release the rack, squeeze the center handle and slowly lower it.
5. Place your bike in the wheel well, making sure the front wheel is placed on the side labeled "front wheel."
6. Pull up and out on the support arm and hook the arm securely over the front wheel.

How to Unload Your Bike:

1. Tell your driver you will be unloading before you reach your stop.
2. Raise the support arm off the tire. Move the support arm down, out of your way.
3. Lift your bike out of the rack.
4. Fold up the bike rack if there is no other bike in the rack.
5. Move immediately to the curb.
6. Wait for the bus to pull away before you get ready to ride.

See CDTA's how-to video at: <http://www.cdta.org/bikeable-bus/73>

BIKE PARKING

Numerous business and organizations have installed bike racks on site or on the sidewalk nearby. If there's no bike rack close by, you may choose to lock up to an immovable object (e.g., fence). There is often a good alternative. Make sure to use an object that cannot be easily removed. Never lock your bike to a short object such as a sign over which a locked bicycle can be lifted.

Make sure you lock your bike frame to the rack with either a U-lock or Cable lock. At a minimum, you should put your lock through your frame and the rear wheel. This is especially important if you have a quick release wheel. If you only lock the wheel, the rest of your bicycle can be detached and carried away. Options for locking the frame and both wheels include:

- 1) Remove the front wheel and lock to the rest of the bike,
- 2) Use a U-lock for the front wheel and frame, and run a cable lock through the U-lock and rear wheel.

Numerous bike rack locations are listed at <http://capitalmoves.org/capital-region-travel/walking-bicycling/bike-rack-map>.

ACCESSORIZE:

Keep cycling enjoyable

TYPES OF LOCKS

Cable locks are flexible steel cables with two ends that lock together with a key or combination. A thick-gauge metal chain is similar but is excessively heavy.

U-Locks are large u-shaped shackles usually locked with a key. As these are rigid, they also help to keep your bike standing while it is locked up, so it won't get knocked over by the wind or bumped by a fellow cyclist locking up her bike.

LIGHTS

Flashing L.E.D. lights for both the front and rear of your bike are an inexpensive necessity. They're good to have on those gray days too! Bicycle headlights and taillights can be purchased at any bike shop or sporting goods store. Rechargeable lights have larger up-front costs, but more than make up for the expense of throwaway batteries.

FENDERS & CHAIN GUARDS

Even if you don't normally ride in the rain, fenders make riding on wet streets a much more tolerable experience. They prevent rain and dirt from being kicked up from your wheels onto your feet, back, and legs. Rain mixed with mud and gasoline residues cause damage to your chain and other bicycle parts. The more wheel coverage a fender offers, the better! There are various fender designs and sizes available at your local bike shop. A chain guard can protect your chain *and* your pants/leg!

MIRRORS

There are two different types- helmet-mounted and handlebar-mounted. Mirrors can help you check traffic behind you. When changing lanes or turning left, do not rely on mirrors alone. Scan over your shoulder to be sure the path is clear.

CARRYING CARGO AND CHILDREN

A basic backpack is very convenient for small loads, but doesn't hold a lot and can make for a hot and awkward ride when loaded. A "messenger bag" has a single strap that rests on your opposite shoulder. It's also convenient but does not hold a lot.

For more cargo, a rear rack is extremely useful. You'll need one to use panniers and some baskets. Panniers are bags that attach to a rear rack. These are usually waterproof, removable, and allow you to carry more weight. Baskets and buckets are generally a less expensive option for carrying more weight. Baskets can attach to the front or rear of your bike. Some are collapsible and others are easily removable to go in the store with you.

Trailers attach to the rear of your bike and are the best for carrying large loads - children, pets, groceries, or whatever else you can think of. Child seats that can be mounted on a bike – usually above the rear wheel. The child is secured into the seat by safety straps. Keep in mind that because of its height, this type of carrier alters your center of gravity while riding and increases the risk of losing balance.

Most bike trailers are designed to carry children, along with a shopping bag or two. Bike tag-alongs or trail-a-bikes are designed for older children and allow the child to pedal along with you. For any of these devices, check the manufacturer's specifications for safe use and any age and/or weight limitations. Watch Craigslist & garage sales for inexpensive used trailers!

LEG BANDS

Leg bands are a cheap and easy way to keep your pant leg free of chain grease. Your launderer will thank you.

GLOVES

Wearing gloves serves two purposes: they can protect your hands from the elements and can prevent aches and pains in your hands and wrists. Use full-fingered in cooler weather and half-fingered in warmer weather.

EYE PROTECTION

Glasses can protect you from rain, bugs, and flying gravel from cars. Safety glasses from a hardware store are a popular, inexpensive favorite. Sunglasses can help protect you from flying objects, glare, and of course, the sun.

LAYERING

Layering can be the key to staying comfortable when riding in wet and/or cold weather. Multiple layers can be a low cost alternative to performance clothing. In addition, a layer can easily be added or removed to improve comfort on the fly. Try a base layer that breathes, another layer that provides warmth and an outer layer that keeps out the wind and rain.

RAIN GEAR

Water-resistant and waterproof clothing specific to cycling can make year-round riding a breeze. A good rain jacket with a longer flap in the back is a good start. If you desire you can also buy rain pants, waterproof gloves, helmet covers and shoe covers.

REFLECTIVE AND BRIGHT CLOTHING

Drivers may not be used to looking for cyclists, or anything smaller than another car for that matter, so be as conspicuous as possible. During the day, light and fluorescent-colored clothing is very visible, but at night reflective gear (vest, arm/leg band) is best. Drivers will appreciate your efforts to make yourself more visible to them.

While not a substitute for lighting, you can buy clothing with reflective panels and/or piping or add reflective tape to existing items.

SHOES AND PEDALS

Generally, any shoe will do. Choose something casual and comfortable with a good traction sole. Toe clips (cages attached to the pedals that your foot slips into) can be added for better pedaling efficiency. A more technical alternative is a pair of clipless pedals that require special cleated shoes.

WATER BOTTLE

While riding your bike you should drink enough to match the intensity of the ride, the heat of the day, and your body's needs—the average recommendation is one 16-ounce bottle per hour in cool weather, up to as many as four bottles per hour in extremely hot weather. So make sure your bike is equipped with a water bottle.

NUTRITION

The average bicyclist burns over 500 calories per hour—that's about two slices of pizza! In addition to keeping hydrated, make sure you fuel your body properly before and after each bike ride to avoid fatigue.

RIDING TECHNIQUE:

Improve your skills

The best way to improve your bike skills and safety is to ride more. Learn how your bike handles – how it stops, accelerates, turns and shifts. We'll give you a head start here.

BRAKING

Get to know your brakes by practicing in a vacant parking lot. Rear wheel brakes (usually the right hand lever) are very different from front wheel brakes. The front brake has more stopping power than the rear, but also requires more skill to avoid stopping too abruptly. For emergency braking, (1) shift your weight toward the rear of the saddle and get your torso as low as possible while (2) applying even pressure to both brakes. Practice this too!

SHOULDER CHECKING OR LOOKING BEHIND

Cyclists need to check traffic behind them when changing lanes or merging, just as drivers do when using a rear-view mirror. Practice the “shoulder check” in a vacant parking lot until you can do it without swerving. If your neck doesn't like turning that far to look over your shoulder, try releasing your left hand and pivoting at the waist and hips – the knee on the side you're turning to can point out a bit. Also, mirrors (either the helmet or handlebar mount) can be helpful, although they're not a complete substitute for shoulder checking/scanning.

CORNERING

Slow down before you turn. Applying the brakes during a turn can cause you to skid. For more stability while turning, keep the inside pedal up.

SHIFTING GEARS

Use your gears to keep your pedaling speed (aka “cadence”) fairly constant and easy. Downshift to an easier gear when coming to a stop so that when you start up again you’ll be in an appropriate gear. For going up hills, shift to an easier gear before you begin pedaling uphill. A cadence of about 60 to 80 pedal revolutions per minute is a good target for most cyclists.

THE POWER START

Making a smooth and quick take-off is deceptively easy.

Here’s how:

- Stand over the frame in front of the saddle. Hold the brake levers so the bike won’t roll.
- Lift your right foot (if you’re “left-footed,” start with your left foot instead) and put it on the pedal. Turn the crank backwards until the pedal is at 2 o’clock position – forward and high.
- Let go of the brakes and push down on the pedal. The first pedal stroke starts the bike moving and lifts you up to the saddle.
- When the opposite pedal comes to the top position put your foot on it for the second pedal stroke.

ROAD HAZARDS

Railroad tracks, wet leaves, metal utility covers, thermoplastic road markings and gravel are just a few things that can pose problems for cyclists. When riding over any of these surfaces, especially when wet, avoid braking and turning. For any rough surface, shift some of the weight off of your seat and onto your hands (handlebars) and feet (pedals).

WATCH THOSE TRACKS!

Cross tracks at as close to a right angle as possible. Railroad tracks are slippery, especially when wet, so don't alter your direction or speed as you cross. If you can't get a good crossing angle, or if the surface looks too rough, it's OK to walk your bike across. Again, avoid braking or turning when crossing tracks.

STAY OUT OF THE BLIND SPOT!

If you need to pass a slower motorist on the right, use extreme caution – make sure you stay out of the driver's "blind spot" especially at locations where a driver could turn right across your path, like intersections and driveways.

- Stay a little bit ahead of the vehicle so the driver can see you in front of them, or
- Stay far enough back so that if the vehicle suddenly turns right or stops you'll be able to stop your bike safely.

THE BOX LEFT TURN

Merging across traffic on a busy street can make a left turn a difficult maneuver even for an experienced cyclist. You can cross just like a pedestrian. Here's how to make that turn safely:

1. Ride through the intersection on the right side of the road.
2. Stop near the curb and turn the bike to head in the right direction.
3. Proceed with caution, obeying traffic controls, and merge back in your new direction of travel when it is safe to do so.

WHEN IN DOUBT, SLOW DOWN

When biking, it's easy to pull over to the side of the road and assess the situation. Slowing down also decreases your stopping/braking distance, giving you more time to react to the unexpected.

CYCLIST RESOURCES:

BIKE REPAIR AND MAINTENANCE INFORMATION

Troy Bike Rescue – www.troybikerescue.tk – 328-4827

Albany Bike Rescue – www.albanybikerescue.wordpress.com

Bikeatoga Workshop (Saratoga Springs) – www.bikeatoga.org

Electric City Bike Rescue (Schenectady) – www.electriccitybikerescue.org

Downtube Bicycle Works (Albany) – www.downtubebicycleworks.com
– 434-1711. Classes restarting mid-late summer 2016.

BIKE RENTALS

Downtube Bicycle Works (Albany) – www.downtubebicycleworks.com
– 434-1711

Plaine and Son (Schenectady) – www.plaineandson.com – 346-1433

Broadway Bicycle Co. – www.broadwaybicycleco.com – 451-9400

GROUP RIDES

Bike Barn Cycles (Cohoes) – www.bikebarncycles.com – 238-2453

Spa City Bicycle Works – www.spacitybicycleworks.com – 587-0071

Mohawk Hudson Cycling Club – www.mohawkhudsoncyclingclub.org

WEBSITES

Capital Coexist – www.capitalcoexist.org.

Pedestrian and Bicycle Information Center – www.pedbikeinfo.com

MAPS

Capital District Regional Bike-Hike Map – www.cdtcmppo.org/regbkmap.htm

Mohawk-Hudson Bike-Hike Trail Map – 458-2161

New York State Canal Corp.—www.canals.ny.gov/trails

BOOKS

Bike Repair & Maintenance for Dummies, by Dennis Bailey & Keith Gates

The Cyclist's Manifesto: The Case for Riding on Two Wheels Instead of Four, by Robert Hurst

It's All About the Bike: The Pursuit of Happiness on Two Wheels, by Robert Penn

Joyride, by Mia Birk

Just Ride, by Grant Petersen

OTHER ORGANIZATIONS

Albany Bicycle Coalition - <http://albanybicyclecoalition.com/>

Cornell Local Roads Program – <http://www.bike.cornell.edu/>

League of American Bicyclists – www.bikeleague.org

New York Bicycling Coalition – www.nybc.net

Parks & Trails New York—www.ptny.org

NOTES:



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CAPITAL DISTRICT
TRANSPORTATION COMMITTEE

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cdtc@cdtcmpo.org or 518-458-2161