



# A Guide to Your Ride

**Bicycling Tips,  
Techniques &  
Street Smarts**

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[getaboutcolumbia.com](http://getaboutcolumbia.com)

# Benefits of Bicycling

HEALTH, ENVIRONMENT, LIVABILITY

Why bike? How about saving time, saving money, improving your health and helping your community. And, along the way, you'll have fun!

## Saving Time

Most trips in town are less than two miles. This means that even at an easy pace you can arrive in about 10 minutes, with no parking hassles. A benefit of biking longer trips, such as your commute to work, is you can skip going to the gym that day.

## Saving Money

When you bike, you save money usually spent at the pump. Plus, oil changes, tune-ups, tire replacement and parking become more affordable. You can even save money on auto insurance if you drive fewer miles per year. Some families find they can eliminate the need for a second car by using bikes.

## Improving Your Health

Pop Quiz: Which is a greater health hazard?

- Negotiating traffic
- Sitting on the couch

If you guessed the couch, you're right. The surgeon general suggests that significant health benefits can be obtained by 30 minutes of moderate physical activity five days a week. You don't have to ride like you're in the Tour de France to see and feel the positive effects of biking.

## Helping Your Community

You can 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. Riding a bike is a cost-effective way to do your part for the community.

## The Best Reason of All

Regular bicyclists will tell you they arrive at work feeling happy, even when the weather is dismal. Scientists struggle to explain this phenomenon, citing endorphins and increased oxygen flow to the brain. But the best proof is in the faces of your neighborhood kids—they're experts at finding the fun stuff to do, and getting on a bike is usually one of them.

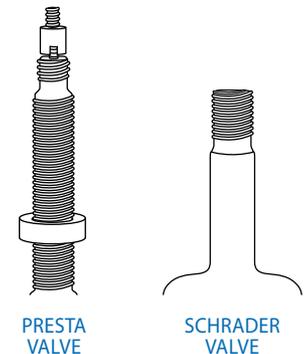
# Starting Out Right

CLEARING YOUR BIKE FOR TAKEOFF

Bring your bike up to speed with these simple tips to help ensure a safe and trouble-free ride. If your bike doesn't pass one of the simple checks below, take it to a bike shop for further inspection or repair.

## Tire Pressure

Keeping tires inflated will help you avoid flats and makes your ride much smoother. The easiest way to check the pressure is by 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 just enough so that it's difficult to push your fingers into the tire. There are two kinds of tire valves, and most tire pumps are adaptable to either one.



## Wheels

Keep your wheel from wobbling. A wobbly, "untrue" wheel can rub against the brake pads and cause your brakes to perform below average. To check, turn your bike upside down and spin the wheels while looking closely at the brake pads—the hard rubber pads that rub the wheel rim when you try to brake. The gap between the rim and the brake pads should stay relatively consistent.



## Brakes

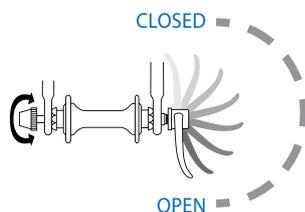
The brake levers should stop before they touch the handlebars when you squeeze them. If they don't, your brakes may have a cable-adjusting barrel so you can tighten them easily.

Keep your wheel rims free of dirt and grease by using an old rag once in a while to wipe the grime off the rims. This is especially important when you've been riding during wet weather.

Brake pads wear down and eventually wear out over time. Many have a "wear line" showing when they need replacement. Brake pad replacement is relatively inexpensive. Good brakes for your bike are essential. Ask your friendly local bike shop for advice.

## Quick Release

Many bikes have quick-release levers on the wheels. Make sure the levers are solidly locked or snug and curved in toward the bike. You can inspect the quick-release visually every time you ride. If you have questions about how to lock a quick-release lever, stop by your local bike shop to ask questions.



## Chain

To check out your chain, lean your bike against a wall, or better yet, have someone hold it for you. Kneel 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 light oil to the chain and wipe off the excess.

### DO THE ABC QUICK CHECK

**Air** – Is the tire inflation OK? Not too squishy?

**Brakes** – Working well? Stopping quickly?

**Chain and cranks** – Pedaling smoothly? No squeaking?

**Quick releases** – Closed and tight?

**Check** – Anything loose or rattling on the bike?  
A quiet bike is a safe bike!

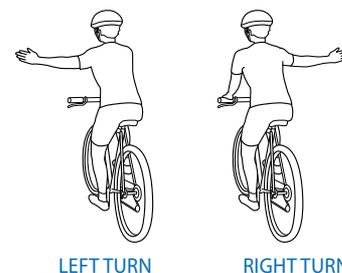
# Two Wheelin' It

## STAYING SMART, SAFE AND LEGAL

Knowing your responsibilities and rights as a bicyclist is important to staying safe and feeling confident on your bike. In general, the same traffic rules and regulations for vehicle drivers apply to bicyclists. Read on for a brief summary of the most important laws and traffic considerations pertaining to bicyclists. See the *Resources* section (page 17) in this booklet to find out where to go for information on bike safety and the law.

## Signaling Turns

The majority of the time, bicyclists should use hand signals to indicate a turn or a stop at least 100 feet before making a move. Sometimes you'll need both hands for braking or just to be safe. However, if you have an available hand, let drivers, pedestrians and other bicyclists know where you're going by using proper hand signals.



LEFT TURN

RIGHT TURN

## Where to Ride

If you're riding a bicycle on a road at less than the normal speed of traffic, you should ride as near to the right side of the roadway as safe, except when:

- Overtaking or passing another bicycle or vehicle.
- Preparing to execute a left turn.
- Avoiding hazardous conditions.
- The lane isn't wide enough to allow safe passing by a motor vehicle.
- On a one-way street.

In all of the above cases, a bicyclist may need to take the lane to avoid being squeezed up against the curb or a parked car.



RIDE IN A STRAIGHT LINE

Maintain a straight line of travel, and avoid weaving in and out of the parking lane. This helps make you more visible to other road users. Bicyclists can ride side by side as long as they don't impede the normal movement of traffic.



DON'T WEAVE IN AND OUT

## Changing Lanes Safely

In order to safely change lanes in traffic, you should know where you're going first. Before making a lane change, check the lanes in front of and behind you several times. Act carefully, smoothly and deliberately when you make your move. Signal which way you intend to go, unless you need both hands to maintain control. Wait for vehicles to yield or until there is enough room for you to move over safely.

## Using Bike Lanes

Motor vehicles are required to yield to bicyclists in a bike lane and are not allowed to obstruct or park in that lane. Bicyclists may ride outside a designated bike lane when:

- Overtaking and passing another bicycle.
- Preparing for a left- or right-hand turn. (See instructions on page 17.)
- Avoiding debris or other hazards.

When overtaking a slower-moving motor vehicle in a bike lane, use extreme caution—drivers don't always use turn signals, and may not expect a bicyclist to pass them on the right. This is especially important with wide-turning trucks that may appear to be going straight. Also avoid riding in the driver's blind spot.

## Sharrows

A "sharrow" is a pavement marking that includes a bike stencil with two arrows above it. These markings are painted on streets that are good for bike traffic, but are too narrow for separate bike lanes. Sharrow markings indicate to motorists and bicyclists that they must use the same space on the street as they travel. Sharrows are also used in locations where a bike lane ends and bicyclists must merge with other traffic.



## Be Pedestrian Friendly

The safest way to ride your bike is to use the tips and techniques in this brochure and ride your bike like you would drive a motor vehicle. Sidewalks are designed for pedestrians. It is highly recommended that you avoid riding on sidewalks. But when you do, ride with the direction of traffic, and dismount and walk your bike across all intersections and driveways. By city ordinance, bicyclists are not allowed to ride on sidewalks in the downtown business district.

On multi-use trails, give an audible warning using a bell or your voice before overtaking pedestrians from behind. Columbia's beautiful multi-use trails, such as the MKT Trail, are very popular. It is your responsibility to yield to pedestrians, so slow down a little bit and enjoy the scenery.

## Car Doors

Give yourself a buffer when passing on the left of a parked or moving vehicle. You should leave three to four feet of clearance to avoid suddenly opened car doors or to allow for a vehicle to swerve.

## Getting a Green Light

Some traffic signals are triggered by electrically-charged wires buried in the pavement. A vehicle disrupts the current when it stops over the sensors, and 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.

The City of Columbia marks the location of these sensors on the street to indicate how and where a bicycle needs to be positioned to activate the signal. Put your bike tires directly on the bike symbol to activate the signal. If a car is at the intersection, it will activate the signal for you.

If you find a signal that needs marking or is not working for bikes, please call (573) 874-7250.



## Equipment Requirements

### Helmets:

Helmets are mandatory for everyone under the age of 16 to avoid head injury. For those 16 and older, helmets are highly recommended: they're comfortable and relatively inexpensive. If you ever need your helmet's protection—and we hope you don't—you'll be very glad to have it.

### Lights:

Lighting equipment must be used during limited visibility conditions. Required lighting equipment includes:

- A white light visible from at least 500 feet.
- Although red reflectors are the only requirement for the back of the bike, including a rear light that is visible from at least 600 feet is highly recommended for the safety of the rider and others using the streets.

Additional reflectors are also recommended.

### Brakes:

Bikes must be equipped with a brake that is strong enough to skid on dry, level, clean pavement. If your bike won't do this, see the *Braking Expertise* section on page 15.

## Accessorize Your Ride

### SOME ADD-ONS TO MAKE LIFE EASIER

You have a bike, and you're ready to go. Check out this overview of popular bike accessories before you head out the door. Small investments can make a big difference in the comfort, convenience and safety of your ride.

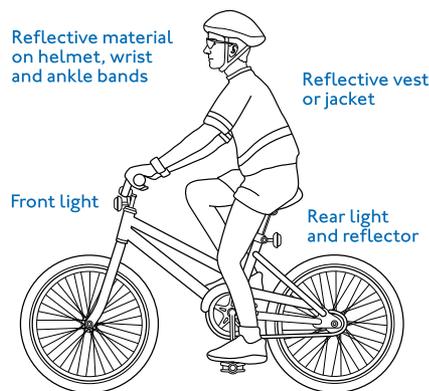
#### Chain, Cable and U-lock

One of the most basic pieces of gear for your bike is a good lock. There are a variety of different types of locks. Your local bike shop will be glad to help you select one that meets your needs.



#### Being Seen

Unless you ride only on the brightest and sunniest of days, you need to have lights. Flashing LED lights for both the front and rear of your bike are an inexpensive and invaluable piece of safety equipment. They're good to have on those gray days too! If you ride in an area where there are few street lights, invest in a solid beam front light to illuminate the way.



#### Managing the Moisture

Even if you don't normally ride in the rain, fenders (i.e. mudguards) make riding on wet streets a more pleasant experience. Fenders keep water and grit from being sprayed onto your feet and legs. Your local bike shop can set you up.



### Carrying Cargo and Kids

You can haul a lot on a bike if you're properly equipped. But it can be frustrating and dangerous if you're not. Some great ways to help carry cargo are listed below.

#### Basic Backpack

A basic backpack is very convenient for small loads. A messenger bag with a single strap is a nice piece to use for small amounts of cargo.



#### Racks

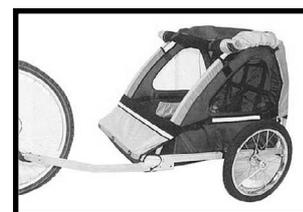
A rack for the rear of your bike is extremely useful. You'll need one if you want to use panniers, buckets or baskets. Panniers are bags that attach to a rear bike rack. They're removable and allow you to carry more weight than a backpack. Baskets and buckets are generally a less expensive option, and they can attach to the front or rear of your bike. Some are collapsible and others are easily removable to go into the store with you.



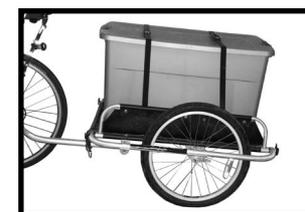
PANNIERS

#### Trailers

Trailers attach to the rear of your bike and are best for carrying large loads, whether it's children, pets, groceries or whatever else you can think of. (Hot tip: watch the classified ads for inexpensive used trailers!)



CHILD TRAILER



FLATBED TRAILER

#### Seats, Trailers, Tagalongs, Trail-A-Bikes

Seats can be mounted on a bike—usually above the rear wheel—to allow you to carry a child. Most bike trailers are designed to carry kids, along with a shopping bag or two. Bike tagalongs or trail-a-bikes are designed for older children to pedal along with you. Always check the manufacturer's specifications for how to use the product safely and be aware of any age or weight limitations.



TRAIL-A-BIKE

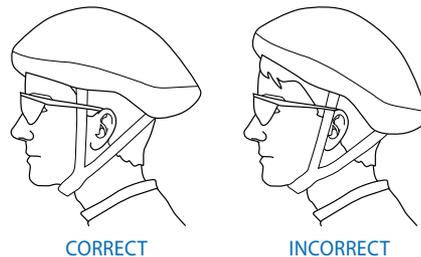
# Accessorize Yourself

## DRESSING CORRECTLY IMPROVES THE RIDE

There is gear that everyone should wear when they ride. Then, there is gear made for specific conditions such as riding at night, in the rain or in the cold. Choosing the right clothing will take a bit of experimentation on your part. Here's an overview to get you started.

### Helmets

Wear one! You need a helmet if you have a head on your shoulders. If you're under 16 years old, City of Columbia Ordinance No. 17642 requires you to wear one.



### Leg Bands

Leg bands are a cheap and easy way to keep your pant legs free of your bike chain.

### Gloves

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

### 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 high-end performance clothing. In addition, layers can easily be added or removed to improve comfort as you ride. Try a base layer that breathes, another layer that provides warmth and an outer layer that keeps out the wind or rain.

### Reflective and Bright Clothing

The right clothing can provide you with added visibility during dark or low light conditions. You can buy clothing with reflective panels and/or piping, or add reflective tape to existing items.

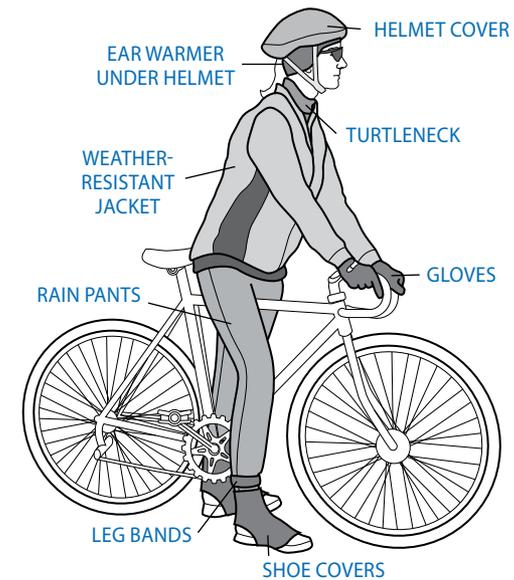
**Note:** Reflective clothing is not a substitute for bicycle lighting equipment.

### Rain Gear

Water-resistant and waterproof clothing specifically for bicycling can make year-round riding a breeze. A good rain jacket with a longer flap in the back is a good start. You can also find rain pants, waterproof gloves, helmet covers and shoe covers.

### Shoes and Pedals

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



## WET WEATHER TIPS

- When parking outside in wet weather, carry a plastic bag to put over your seat to keep it dry.
- Use plastic bags to keep your feet dry—just use a rubber band to keep them on.
- Keep an extra pair of socks and shoes at your workplace in case you need to change.

## Getting Down To Basics

### ADJUSTING YOUR BIKE FOR A COMFORTABLE RIDE

Making sure your bike fits you correctly can be crucial to your 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

It's not a one-type-fits-all world. Mountain bikes, hybrids and comfort bikes with upright handlebars and wider tires are well-suited to shorter trips on city streets. Road bikes with drop handlebars and narrower tires may be a better choice for longer-distance trips. Then, in addition, there are recumbent bikes, folding bikes, tandems, fixies—so many possibilities! Visit several local bike shops and they'll be glad to help you find the one that's right for you.

#### Bike Size

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

- For on-road riding there should be about 1-2 inches between the top bar of the bike frame and your inseam.
- For off-road riding, there should be about 3-4 inches between the top bar of the bike frame and your inseam.



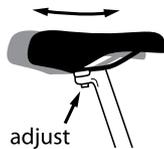
#### Seat (Saddle) Types

A seat is just a seat, right? Actually, there's a wide variety of seats for nearly every type of rider. Seats can be made for comfort or speed and come in gender-specific styles. Ask your local bike shop for help in selecting the best seat for your needs.

#### Adjusting Your Seat

The key adjustments to a seat are:

- Fore/aft—a general rule is 1.75 to 2.5 inches from the nose of the seat to a vertical line through the bottom bracket.
- Angle—start out level, then adjust to 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.



## Getting Around Columbia

### MAKING TRIPS BY BIKE

#### Pick Your Route

Some routine or leisure trips by bike are easy to make, but a little planning is a good idea for longer, unfamiliar trips. The route you normally drive may not be the best route by bike. Look for maps that indicate bike routes, bike lanes, multi-use trails or difficulty levels to help you plan.

#### Bringing Your Bike on the Bus

All Columbia transit buses have bike racks. It's easy—just pay the normal fare and bring your bike along! See *Bikes and Transit* tips on the next page for more information.

#### Bike Parking

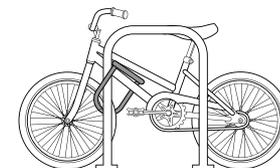
Columbia has on-street bike racks. Many businesses provide bike racks, so finding somewhere to lock up usually isn't too hard. If you plan to commute, scout out the best place to park your bike in advance.

#### Lock It Right

At a minimum, you should put a lock through your frame and the front wheel. This is especially important if you have a quick-release wheel; if you lock only the wheel, the rest of your bike can be detached and carried away. Options for locking the frame and both wheels include:

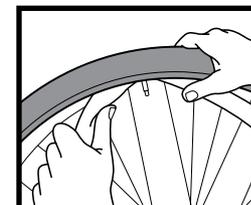
- Removing the front wheel so it can be locked with the rest of the bike.
- Using two locks.

**Lock-up Tip:** Locking both the frame and the front wheel makes breaking your U-lock tougher for thieves. It also helps keep your bike from falling over if bumped.



#### Maintenance on the Fly

The most common mechanical problem bicyclists experience is a flat tire. It's not much fun, but actually it's surprisingly easy to fix a flat tire. Want to know how? Call your local bike shop for a schedule of bike repair classes or visit [getaboutcolumbia.com](http://getaboutcolumbia.com).



## Bikes and Transit

### AN IDEAL COMBINATION

You have a friend on the road allowing you to access miles of destinations by bike—it's the Columbia Transit bus! All Columbia Transit buses have bike racks capable of holding two bikes at a time. So what are you waiting for? Get to a bus stop and explore even more biking possibilities.

### Come Ride With Us

Bikes are secured to the bus with a spring-loaded clamp, and can be loaded or unloaded from the rack without touching either the bus or another bike. The racks accommodate single-seat, two-wheeled bikes with standard size wheels. Collapsible bikes that fold up may be brought on board the bus. Tandem bikes and bikes with oversized wheels or training wheels are not allowed.

### Using the Rack

Since Columbia Transit drivers aren't allowed to load or unload your bike, please follow these instructions carefully:

- While you're waiting for the bus, be sure to remove any loose items from your bike such as air pumps or bags.
- Wait for the bus to come to a complete stop before beginning to load.
- With one hand, squeeze the rack handle and lower the rack.
- Load your bike into a bike slot. If both slots are open, load your bike in the slot nearest to the bus. You can do this from the front or from the curb by rolling your bike into the rack.
- Raise the bike support arm over the front wheel, just past the highest point of the tire. The arm should rest on the tire, not the fender. You don't need to lock your bike onto the bike rack.
- Board the bus and enjoy the ride!



### Exiting the Bus

When you exit the bus, remind the driver that you have to remove your bike from the rack. To unload your bike, release the support arm and lift the bike from the rack. Once the rack is empty, squeeze the silver handle to return it to an upright position. It's best to wait on the sidewalk until the bus is gone before attempting to ride across the street.

If you forget to unload your bike, call Lost and Found at (573) 874-7282. All bikes will be turned in and held at Wabash Station for 30 days.

## Bicycling Technique

### IMPROVE YOUR SKILLS FOR BETTER BICYCLING

There are lots of riding techniques and insider tips that most people learn bit by bit. We'll save you some time and trouble. Don't be shy about using a vacant parking lot or playground to practice your moves.

### Braking Expertise

Get to know your brakes. 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. Spend some time in a vacant parking lot getting the feel of your brakes.

For emergency braking:

- Shift your weight toward the rear of the saddle and position your torso as low as possible.
- Apply even pressure to both brakes.

### Shoulder Checking or Looking Behind

Bicyclists need to check traffic behind them when changing lanes or merging, just as drivers do when using a rearview mirror. Practice the shoulder check in a vacant parking lot until you can do it without swerving. If your neck isn't comfortable turning that far to look over your shoulder, try pivoting at the waist and hips as well.

Mirrors can be helpful (either the helmet mount or handlebar mount variety), though they're not a substitute for shoulder checking.



### Shifting Gears

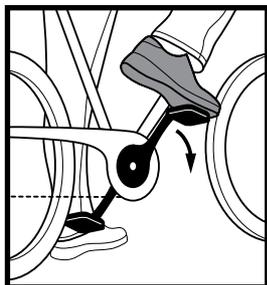
Use your gears to keep your cadence (the speed you turn the pedals) fairly consistent and easy. A cadence of about 75 to 95 pedal revolutions per minute is a good target for most bicyclists.

**Tip:** Downshift to an easier gear when coming to a stop or climbing a hill.

## The Fast Start

Making a smooth and quick take-off is 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 and put it on the pedal. (If you're "left-footed," start with your left foot instead.) Turn the crank backwards until the pedal is at the two o'clock position.
- 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.



## 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.

## Road Hazards

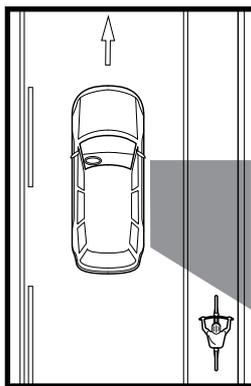
Railroad tracks, wet leaves, metal utility covers, thermoplastic road markings and gravel are just a few things that cause problems for bicyclists. When riding over any of these surfaces, especially when wet, avoid braking or turning. For any rough surface, shift some of the weight off of your seat and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

## Watch Those Tracks!

Cross railroad tracks as close to a right angle as possible. Tracks are slippery, especially when wet, so don't alter your course or speed as you cross. If you can't get a good crossing angle or if the surface looks too rough, you can walk your bike across.

## Intersections and Bike Lanes

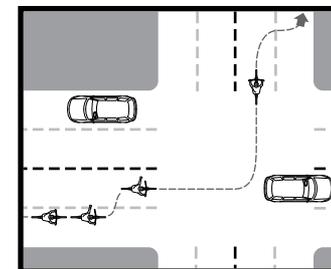
When approaching an intersection and using a bike lane, look behind you to check for oncoming vehicles, then signal and merge into the appropriate, regular traffic lane. This riding technique should be used in all intersection maneuvers, including when you are proceeding straight through the intersection. Bicyclists should never ride to the right of vehicles when crossing an intersection. This will help you avoid a driver who may turn right across your path.



## The Left Turn

When you approach a multi-lane intersection, think about where you would position yourself if you were driving a car. Never attempt a left turn from the right side of the lane you're traveling in.

- Plan ahead.
- Look behind and to the left.
- Signal your intention to move left into the lane.
- Look behind and to the left again.
- Signal your intent to turn left.



## 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.

# Community Resources for Bicyclists

## Street Maintenance and Traffic Safety

To report problems on city streets, call the Public Works office: (573) 874-7250.

## Bicycle Safety and Education Classes

For more information on bike education programs, visit [getaboutcolumbia.com](http://getaboutcolumbia.com).

## Columbia Transit

For more information about bus routes, visit [gocolumbiamo.com](http://gocolumbiamo.com). To contact the Lost and Found to claim your bike, call (573) 874-7282.

## Missouri Department of Transportation (MoDOT)

MoDOT works with planning partners to create transportation facilities that work for all users—including bicyclists and pedestrians. For more information about state bicycling laws, trails, route information and maps, contact MoDOT at (573) 526-2921 or check out the website at [modot.org](http://modot.org).

For more information, visit  
[getaboutcolumbia.com](http://getaboutcolumbia.com)



*See where it takes you.*

A CITY OF COLUMBIA PROGRAM  
701 E. BROADWAY • COLUMBIA, MO 65201 • (573) 874-7250