

BENEFITS OF BICYCLING

Commuting by bike is a simple way to cut down on campus congestion and help preserve the environment – but biking to work or school offers even more benefits. Biking may improve your health, save you money, offer convenient parking and save you time in your daily commute. Thousands of students and employees commute by bicycle to UW-Madison.

Many bicycle commuters start out by riding only once a week, as it can be challenging to change your routine and build up your fitness. The more you ride, though, the easier it becomes. Before you know it, the once-a-week bike commute will become a daily activity. Give it a try!

BICYCLE PARKING

- Bike racks are available at or near almost every building on the UW campus. Transportation Services regularly reviews bike parking options and can add more to address additional capacity needs.
- Bike locker and bike cages (require a fee): <https://transportation.wisc.edu/bicycling/#park>

Places it is illegal to park your bicycle (your bike may be impounded without notice):

- Handrails
- Blocking a sidewalk/walkways
- Any rack marked as “no parking”
- Signs
- Light posts
- Any location other than a bike rack

BICYCLE REGISTRATION

- Registration is no longer required by the City of Madison, however, you may want to register your bike with a national bicycle registry to provide ownership identification in the event that your bike is stolen and recovered.
- A free national registration database is available through Project 529 (based in Seattle, Washington) using the 529 Garage app or at project529.com.

BIKES ON BUSES

Taking your bike with you on the bus is a convenient option for traveling beyond campus. All Madison Metro buses, including campus buses, are equipped with bicycle racks. Instructions for using the racks are available at <http://www.cityofmadison.com/Metro/planyourtrip/bikeRacks.cfm>

SHOWERS

UW employees may use showers and lockers located at the Nicholas Recreation Center (The Nick), Natatorium, or Shell athletic facilities, but must pay a membership fee. Showers are available for hospital employee use at C5/123, C5/125 (Women only: D4/116, Men only: D4/110). Other campus buildings with showers for building occupants include 21 N. Park St., Biochemical Science Building, Biochemistry Addition, Education Building, Grainger Hall, Health Science Learning Center, Microbial Sciences, Nancy Nicholas Hall, Cooper Hall (Nursing), Union South, USquare, UW Medical Foundation Centennial Building, Wisconsin Energy Institute, and the Wisconsin Institutes for Discovery. See the facility manager for access.

BIKE BUDDIES

Afraid to ride alone the first time? Get a bike buddy! This free service is available from Rideshare, etc. On the registration page you will be asked to rate your experience as either an accomplished or novice biker. Then you choose if you would like to be matched with either an accomplished or novice bike buddy. Bike trails will appear on match maps in some areas. Your Welcome Page will give web site links to area bike trail maps. Match online at <http://www.rideshareetc.org/> or call 608-266-RIDE or email rideshare@cityofmadison.com.

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MISSING BIKE?

- Contact Transportation Services at (608) 263-2969. Your bike may have been impounded for appearing abandoned, for being parked illegally, or because of construction.
 - Impounded bicycles are delivered to UW SWAP (Surplus With A Purpose) after remaining unclaimed for 60 days, where they are then made available for sale: <https://swap.wisc.edu/>
 - Don't abandon your bike, donate it to <http://wheelsforwinners.org/> or <https://www.dream-bikes.org/>
- If you believe your bike was stolen, file a police report with UW and Madison Police. Registering your bike in advance gives you a better chance of recovery
- Prevent theft by using a high-quality lock and locking the front wheel, rear wheel, and frame to a designated rack. If possible, do not leave your bike unattended on campus overnight. Most bike thefts are crimes of opportunity.

BICYCLING RESOURCES

- Public air pumps are available 24/7 at 21 N Park St, East Campus Mall next to Sellery, the northeast corner of Chadbourne Hall, the west side of Kronshage Hall, next to the Elm Dr. Bike Shelter at DeJope, next to the BCycle station at Charter St and University Ave, the east side of Vet Med, main entrance of Wisconsin Institute for Medical Research, northwest corner of WARF, the Eagle Heights Community Center, and outside the University Bicycle Resource Center (UBRC) under H.C. White.
- The University Bicycle Resource Center (located in the garage below Helen C. White) provides tools, air, grease, lube, and cleaning supplies for use by UW students and employees. Hours vary by semester. The UBRC holds periodic classes and events related to bicycling. Details on hours and classes: <https://transportation.wisc.edu/bicycling/university-bicycle-resource-center/>
- The Campus Transportation Committee discusses programs and policies pertaining to the development of bicycle and pedestrian ways and their associated facilities: <https://transportation.wisc.edu/ctc/>

A list of bicycle resources (including information on bike auctions and winter bicycling) can be found on the Transportation Services website: <https://transportation.wisc.edu/bicycling/>

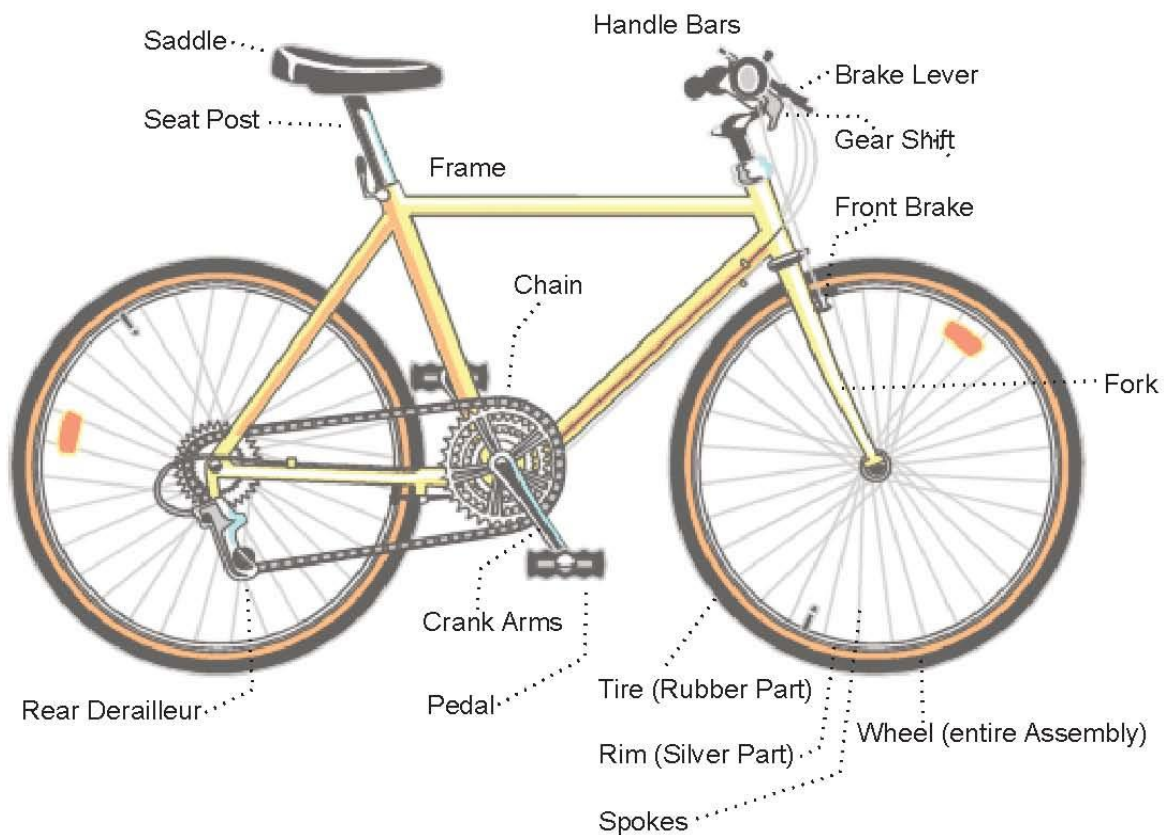
STAYING SAFE

- Ride on the right in the same direction as traffic. Use the lane furthest to the right that heads in the direction that you are traveling. Slower moving cyclists and motorists stay to the right
- Act like a vehicle. Obey all traffic laws, signs, and signals. Use hand signals to indicate your intention to turn or change lanes
- Always wear a properly fit helmet. After a crash replace your helmet whether or not there is visible damage. You should also replace your bicycle helmet AT LEAST every 3-4 years as the protective foam degrades
- Ride predictably. Ride in a straight line and don't swerve in between parked cars. Check for oncoming traffic before entering any street or intersection (including crossing driveways). Anticipate road hazards (glass, debris, grates, rail tracks) and adjust position in traffic accordingly
- Be visible. At night use a white front light and a rear red light or reflector. Bright or reflective clothing will improve your visibility. Make eye contact with motorists to let them know you are there.
- Dress for the weather conditions
- Stay hydrated. Drink before you are thirsty, eat before you are hungry
- If bicycling alone, carry a cell phone.
- ABC Quick Check. Perform this check every time you get on your bike. It only takes a moment. There is a video of the ABC Quick Check at <http://www.youtube.com/watch?v=9VziOlkNXsE>
 - Air: Is there air in your tires and are tires/wheels in working order?
 - Brakes: Do your brakes stop the bike? Are your brake cables attached?
 - Chain/Cranks: Is chain lubed, do pedals spin, is there any looseness?
 - Quick Releases: Are all quick release levers closed tightly? You can read the word "closed" on the lever if it is closed.
 - Final Check: Lift and drop bike...does anything rattle? Give the bike a general look over.
- As a cyclist, it is important to recognize the leading causes of bicycle/motor vehicle crashes. Recognizing the following situations will help you avoid crashes and keep you safe:
 - Motorist turn/merge into bicyclist's path
 - Motorist driving out from stop sign
 - Motorist exiting a driveway or alley
 - Bicyclist turn/merge into motorist path

Find more information at <https://transportation.wisc.edu/>!

THE PARTS OF THE BICYCLE

Even if you don't intend to do any bicycle repairs yourself, learning the parts of the bicycle is useful so that you can describe problems you are having with your bicycle to a mechanic. Knowing the parts of the bicycle will also help you with basic maintenance that will keep your bike safe and pleasant to ride.



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ABC QUICK CHECK

Perform this check every time you get on your bike. It only takes a moment. There is a video of the ABC Quick Check at <http://www.youtube.com/watch?v=9VziOlkNXsE>

- **Air:** Is there air in your tires and are tires/wheels in working order?
- **Brakes:** Do your brakes stop the bike? Are your brake cables attached?
- **Chain/Cranks:** Is chain lubed, do pedals spin, is there any looseness?
- **Quick Releases:** Are all quick release levers closed tightly? You can read the word “closed” on the lever if it is closed.
- **Final Check:** Lift the bike a few inches and let it drop...does anything rattle? Give the bike a general look over.

More details on each of these parts of the bicycle are listed below.

AIR/TIRES

- Check that the tires are aired to the proper pressure. The amount of pressure the tire needs in psi (pounds per square inch) is printed on the side of the tire. Either use a bike pump with a gauge on it to tell how much pressure is in the tire or use a separate tire gauge. There are two kinds of valves on bicycle tires, Schrader and Presta. Make sure you have a pump with an adaptor for the proper kind of valve. A Schrader valve can be aired up directly while the top of a Presta valve must be unscrewed before airing up and rescrewed after airing up. Do NOT use an air pump at a gas station.



- Check that tires are not cracked and tubes are not bulging out. If either of these is happening, the bike is not safe to ride.



Bulging Tube



Cracked Tire

- Learning to change a tire is an invaluable skill. There are many videos and explanations of changing a tire you can find online. One example: <https://www.youtube.com/watch?v=eqR6nlZNeU8>. Most bike shops will also change flat tires on a walk-in basis for a reasonable fee.

BRAKES

- Brakes can be complicated to adjust. If your brakes do not work and you do not feel confident to correct the problem, take the bike to a qualified bike mechanic. Riding your bike without properly functioning brakes is quite dangerous.
- When you pull the brake lever, the wheels should stop. You should not be able to pull the brake lever all the way to the handlebar. If you can pull the lever all the way to the handlebar, your brake cables are too loose and/or the pads need to be replaced.
- Your brake pads should squarely hit the rim of the wheel (the silver part of wheel). The pads should not drop below the rim or hit the tire (the rubber part). The pad can get caught on a spoke if too low or wear a hole in the tire if too high.
- If your brakes are not working, check to be sure that the cable has not become unlatched from the brake.



Places to check that your brakes are attached on two kinds of bicycle brakes

- Brake pads periodically wear out. There is a wear line on the pads that will indicate when they need to be replaced
- You can make minor tightening or loosening adjustments of the brake cables by turning the barrel adjusters near the brake levers



Turning a barrel adjuster.

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CHAIN/CRANKS

- Your chain should be clean and lubricated. There should be no rust on your chain.
- To lubricate, use a lubricant available at any bike store marked as “chain lube”. Place a drop of lubricant on each moving part on the chain, then run a clean towel over the chain to collect any extra lube. Extra lube will collect dirt and shorten the life of your chain.
- Periodically, check to be sure your crank arms are not loose. Grab each crank arm make sure there is no side-to-side movement. If anything in this part of the bike is loose it can be a dangerous situation.



Crank arms and pedals

QUICK RELEASES

- Most modern bikes have quick release levers securing both wheels, and often the seatpost.
- Quick release levers are spring-loaded. Finger tighten them, then close the lever. Do not over-tighten. When you close the lever, it should leave a slight imprint on your hand, but not be overly difficult to close. If your quick release levers are left open, it is a dangerous safety issue as your wheels may fall off or your seat may slip.



Open quick release lever



Closed quick release lever

OVERALL MAINTENANCE AND REPAIRS

- Keep your bike clean. Use a soft rag with water and a mild soap. Do not use a hose or harsh cleaners
- When in doubt, take your bike to a qualified bike mechanic for all repairs and maintenance. It is a good idea to get a check-up once a year.
- On-line resource, Park Tool Repair Manual: <http://www.parktool.com/blog/repair-help>

Find more information at <https://transportation.wisc.edu/>!

Red Bikes

To use a Red Bike, you put down a deposit, use the bike as long as you need it (from spring until the following winter), and get your deposit back when you return the bike.

Contact Budget Bicycle Center: 930 Regent St, Madison, WI – (608) 251-1663 <http://redbikes.org/>

St. Vincent de Paul

St. Vincent de Paul is a thrift store. Used bicycle sales are typically done one Saturday a month. Bicycles are sold as-is and may need repair before riding.

<https://svdpmadison.org/> | 1309 Williamson St. – (608) 257-0673

UW SWAP

Bicycles abandoned on the UW campus and unclaimed are sold at the UW SWAP. Typically the UW delivers bikes to the SWAP only once or twice per year. Some bicycles are sold through the on-line auction portion of SWAP, others are sold at SWAP in Verona. Bicycles are sold as-is and may need repair before riding.

<https://swap.wisc.edu/> | 1061 Thousand Oaks Trail, Verona WI 53593

Madison Police Department Auction

Bicycles abandoned in the City of Madison are sold through www.propertyroom.com. Bicycles are sold as-is and may need repair before riding.

Madison Bicycle Center

Used bikes, repair, and bicycle maintenance classes offered.

<https://madisonbikecenter.org/> | 202 S Pickney St, Madison WI 53703

Craigslist

<https://madison.craigslist.org/d/bicycles/search/bia>

Wheels for Winners

Wheels for Winners is a 501(c)(3) non-profit organization that refurbishes and recycles used bicycles and presents them to individuals who do 15 hours of community volunteer service. Most of the bikes go to children, but adults may also earn a bike. Bikes are given away in full working order with a helmet, lock, and free City of Madison bike registration. Limited hours.

<http://wheelsforwinners.org/> | 229 S. Fair Oaks Avenue, Madison, WI 53704 – (608) 249-2418

Freewheel

FreeWheel is a community bicycle workshop run by volunteers. During open shop hours anyone can come and participate. You can bring your bike and repair it or tune it up using tools and parts from the shop. You can build a whole bike from scratch and get help from the volunteers. Limited hours.

<http://freewheelbikes.org/> | info@freewheelbikes.org | 1804 S. Park Street #5, Madison, WI – (608) 251-2453

Dream Bikes

DreamBikes is a non-profit used bicycle shop in Madison that employs local teens from the Boys and Girls Club of Dane County.

<https://www.dream-bikes.org/> | 4245 W Beltline Hwy Madison, WI – (608) 467-6315

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Local Bike Shops

Madison has several independent local bicycle dealers. Some offer used bicycles or lower cost entry-level new bikes. Most shops also provide repair service.

Budget Bicycle Center – Central

budgetbicyclectr.com/ | (608) 251-8413

Used bicycles available. Multiple buildings on Regent Street: 930, 1124, 1230 Regent St, Madison, WI

Cronometro – East/Central

www.cronometro.com/ | (608) 243-7760

Mostly high-end custom bicycles.

338 Lakeside St, Madison, WI

Erik's Bike Shop:

www.eriksbikeshop.com/

West – 6610 Seybold Rd, Madison, WI - (608) 278-9000

East – 3813 E Washington Ave, Madison, WI 53704 - (608) 244-9825

Machinery Row – Central

www.machineryrowbicycles.com/ | (608) 442-5974

601 Williamson St, Madison, WI

Motorless Motion Bicycles – Central

www.machineryrowbicycles.com/ | (608) 443-0640

640 W Washington Ave, Madison, WI

Old Town Cycles – East/Central

www.oldtowncycles.com/ | (608) 259-8696

920 Johnson St, Madison, WI

REI - Recreational Equipment Inc. – West

www.rei.com/

7483 W. Towne Way, Madison, WI - (608) 833-6680

Revolution Cycles – East

<https://revolutioncycles.net/> | (608) 244-0009

Used bicycles available.

2330 Atwood Ave, Madison, WI

Trek Bicycle Store

https://www.trekbikes.com/us/en_US/stores/madison/

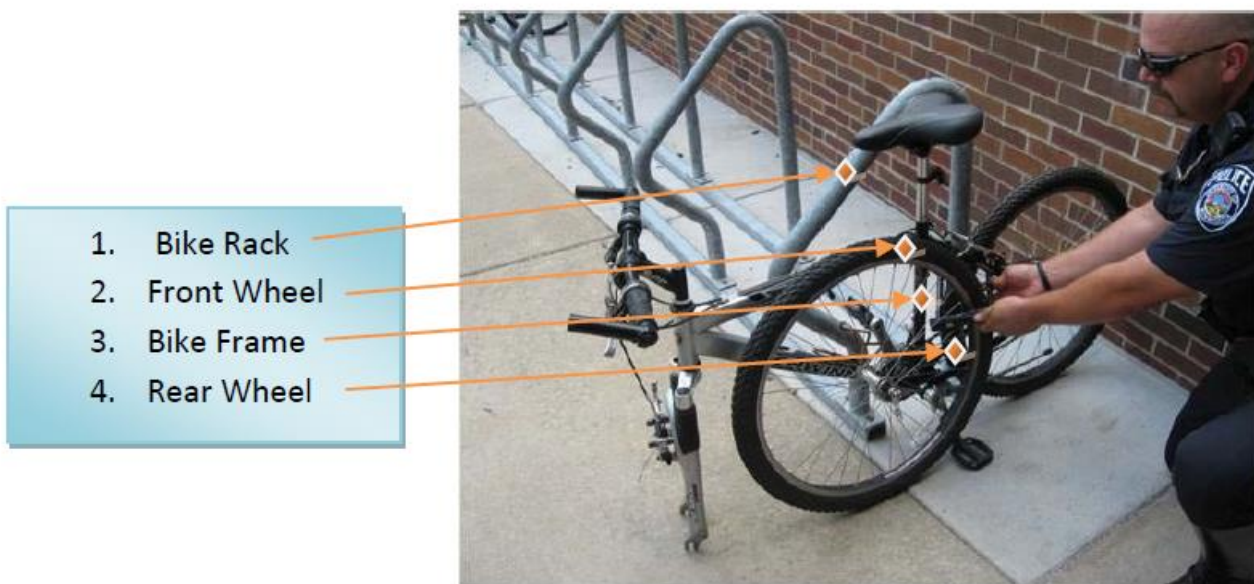
West – 8108 Mineral Point Rd, Madison, WI - (608) 833-8735

East – 1706 Eagan Road, Madison, WI 53704 - (608) 442-8735

LOCK YOUR BIKE OR LOSE IT!

Hundreds of bikes are reported stolen at UW-Madison each year, but most thefts can be prevented. Here's how:

- Always lock your bike, even if you are leaving it for just a minute.
- Always lock your bike to a bike rack.
- Lock your bike in a highly visible, well-lit location if possible.
- Buy a high-quality lock and read the manufacturer's recommendations for use. U-shape locks are among the most theft-resistant, although knowledgeable thieves can break even them.
- Never lock your bike up by just the front wheel. You may return to find only your wheel.
- Ideally your lock should pass through the rack, front wheel, rear wheel, and center of frame. At the very least, pass your lock through the front wheel, frame, and rack.
- Quick-release wheels and seats need to be secured with a cable or other device. Remove any expensive accessories, such as bag or lights, and take them with you.
- Register your bike. This is the best way to assure your bike is returned to you if it is stolen. Registration is no longer required by the City of Madison; however, you may want to register your bike with a national bicycle registry in order to provide ownership identification in the event that your bike is stolen and recovered. A free national registration database is available through Project 529 (based in Seattle, Washington) using the 529 Garage app or at project529.com.
- Use a less valuable bike for riding to class or commuting to work. Statistics show that most bikes stolen on campus are worth \$200 or more.
- If your bike is stolen, report it to the police promptly. You will need to know the make, model name, serial number, and value of your bike. Contact the UW Police Department at (608) 262-2957.
- If you prefer greater security, consider renting a bike locker or a bike cage. Lockers and cages are available at several locations around campus.



WHY BIKE IN THE WINTER?

It is a small but growing group of hearty souls who bike through winter. It isn't as hard as it seems, though it does take preparation and determination. But so do lots of things in winter in Wisconsin! Not everyone is interested in commuting by bicycle all winter long, but it is far less unpleasant than most people believe. It is a great way to keep exercising all year long and to get outside. It's fun and, in so many ways, easier than driving to work in nasty weather.

WINTER BIKING TIPS

Clothing

If you live in Wisconsin and you ever go outside in winter, you have all the clothing you need to ride your bicycle in winter. You can buy fancy gear, but you don't have to. What goes for ice skating or skiing or ice fishing or walking the dog goes the same for biking: dress in layers and remember that cotton kills. Basically, what you will discover is that, after five minutes of bicycling, you will be much warmer than you expected. You may even start to sweat. Don't overdress. Dressing in layers will allow you to adapt if you over-estimated your clothing needs. Wool or some synthetic performance fabrics will keep you warm when sweaty.

Key body parts to protect while winter bicycling are your hands, feet, and face. It seems that people's sensitivity in these zones is very personal, and preferences for how to cover the areas vary widely. However, you deal with these three areas, don't take them for granted.

Some clothing suggestions for different temperatures (Fahrenheit) – modify to your preferences:

- a. Below 75, light jacket
- b. Below 50, medium jacket and maybe gloves
- c. Below 35, heavy jacket, gloves, a scarf, and ear warmers
- d. Below 20, same as 35 but add long johns
- e. Below 10, same as 20 but wind proof over-pants, extra shirt and heavier gloves, scarf, and ear warmers (or exchange ear warmers for a full head cover)
- f. Below 0...this is when you may start thinking about taking the bus, but heartier souls can still safely bike below this temperature, though ski goggles are probably necessary (and ski or snowboard helmets help keep you (and especially your ears) warm.

You should always wear a bicycle helmet when riding.

Eye Protection

When you are riding a bike, your eyes are exposed to all kinds of debris which only gets worse in the winter. It's a good idea to wear glasses or goggles to protect your eyes. You may even want to carry sunglasses with you, as the glare off snow can sometimes be blinding. You'll soon learn that preventing your glasses from fogging is a key pastime of the winter bicyclist. Some recommend wearing ski goggles to prevent fogging or smearing a light layer of gel toothpaste (non-abrasive) on the lens of your glasses.

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Visibility

In the winter it gets dark earlier and stays dark longer. If you bike during traditional commuting hours, you'll likely be biking to and from work in the dark. In the winter, motorists' view of the road is often impaired by a combination of darkness, precipitation, and poorly cleared windshields. It is important to be visible. It's a good idea to wear reflective materials and to have both a front and rear light (a front white light is required by state law, along with a red rear reflector).

Traction

Conventional wisdom on tires in the winter is varied. Some people prefer slick tires to cut through snow to pavement, others swear by big knobby mountain bike tires. One option is having a studded mountain bike tire on the front wheel and a regular mountain bike tire on the back. The studs prevent slipping on ice and, unless the snow is really deep, the mountain bike tread can handle it. Some people prefer having two studded tires.

Follow your personal comfort level with regards to snow and ice. The roads are usually worst directly after a snowfall or when low temperatures have left ice. Watch your local weather report before hitting the road and do not risk your safety. During UW Snow Action Days, it is best to leave the bike at home and take the bus.

Fuel

Like any kind of exercise, eat before you're hungry and drink before your thirsty. It is easy to get dehydrated in the winter and not realize it. It doesn't have to be warm outside to sweat.

Skills

The most important thing about bicycle commuting in the winter is learning the proper vehicular cycling skills. You must be confident riding your bicycle in traffic to be able to safely ride your bicycle in traffic when the weather is poor. Classes are available on cycling skills, but the main thing is to follow all traffic laws, ride in the same direction with traffic, and practice riding in a straight line and checking over your shoulder for traffic behind you. Practice in good weather so you will be ready when it gets nasty.

Handy items:

- Fenders keep your clothes dry
- Lock de-icer
- Spare tire or patch kit and the ability to use them

Maintenance

- Lube your chain & moving parts weekly
- Clean your bike as frequently as possible with water and mild soap
- Check/clean your brakes
- Regularly check that quick release levers are not rusting in place

Storage

It is best to store your bicycle inside during wet weather. Consider purchasing space in a locker or cage on campus.

- Information on bike lockers and cages: <https://transportation.wisc.edu/bicycling/#park>
- Do not leave your bicycle parked at a rack for long periods on campus. It may be confiscated. If you do not intend to ride for a long period of time, take your bike home.

Using the bus

Didn't prepare to ride home in the winter weather? No problem. All Madison Metro buses, including campus buses, are equipped with bicycle racks. Instructions for using the racks are available at <http://www.cityofmadison.com/metro/RackRoll/BikeRacks.htm>

WHY BIKE IN THE RAIN?

Not everyone is interested in commuting by bicycle through all kinds of weather, but it is far less unpleasant than most people believe. It is a great way to keep exercising all year long and to get outside. It's fun and, in so many ways, easier than driving to work in nasty weather.

TIPS FOR BIKING IN THE RAIN**Clothing**

Keeping dry in wet weather when bicycling means protecting yourself from the precipitation, but also from your own sweat. Basically, what you will discover is that, after five minutes of bicycling, you will be much warmer than you expected. You may even start to sweat. Don't overdress. Dressing in layers will allow you to adapt if you overestimated your clothing. Wear a breathable, waterproof outer layer. When it is cold, synthetic fabric or wool will keep you warm when sweaty.

Key body parts to protect when the weather gets colder are your hands, feet, and face. It seems that people's sensitivity in these zones is very personal, and preferences for how to cover the areas vary widely. However, you deal with these three areas, don't take them for granted.

You should always wear a bicycle helmet when riding.

Eye Protection

When you are riding a bike, your eyes are exposed to all kinds of debris which only gets worse in wet conditions. It's a good idea to wear glasses or goggles to protect your eyes. You'll soon learn that preventing your glasses from fogging is a key pastime of the inclement bicyclist. Some recommend wearing ski goggles to prevent fogging or smearing a light layer of gel toothpaste (non-abrasive) on the lens of your glasses.

Visibility

During rainy conditions it is often darker than normal. Motorists' view of the road is often impaired by a combination of darkness, precipitation, and poorly cleared windshields. It is important to be visible. It's a good idea to wear reflective materials and to have both a front and rear light (a front white light is required by state law, along with a red rear reflector).

Traction

Wet pavement may be more slippery than dry. Of particular concern are metal surfaces. If possible, avoid crossing metal utility covers or grates. If you must cross these, proceed slowly with caution and try to keep your bicycle as upright as possible. Cross railroad tracks at a perpendicular angle.

Fuel

Like any kind of exercise, eat before you're hungry and drink before you're thirsty. It is easy to get dehydrated and not realize it. It doesn't have to be warm outside to sweat.

Skills

The most important thing about bicycle commuting in any weather condition is learning the proper vehicular cycling skills. You must be confident riding your bicycle in traffic to be able to safely ride your bicycle in traffic when the weather is poor. Classes are available on cycling skills, but the main thing is to follow all traffic laws, ride in the same direction with traffic, and practice riding in a straight line and checking over your shoulder for traffic behind you. Practice in good weather so you will be ready when it gets nasty.

Handy items:

- Fenders keep your clothes dry
- Lock de-icer
- Spare tire or patch kit and the ability to use them

Maintenance

- Lube your chain & moving parts weekly
- Clean your bike as frequently as possible with water and mild soap
- Check/clean your brakes
- Regularly check that quick release levers are not rusting in place

Storage

It is best to store your bicycle inside during wet weather. Consider purchasing space in a locker or cage on campus.

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Using the bus

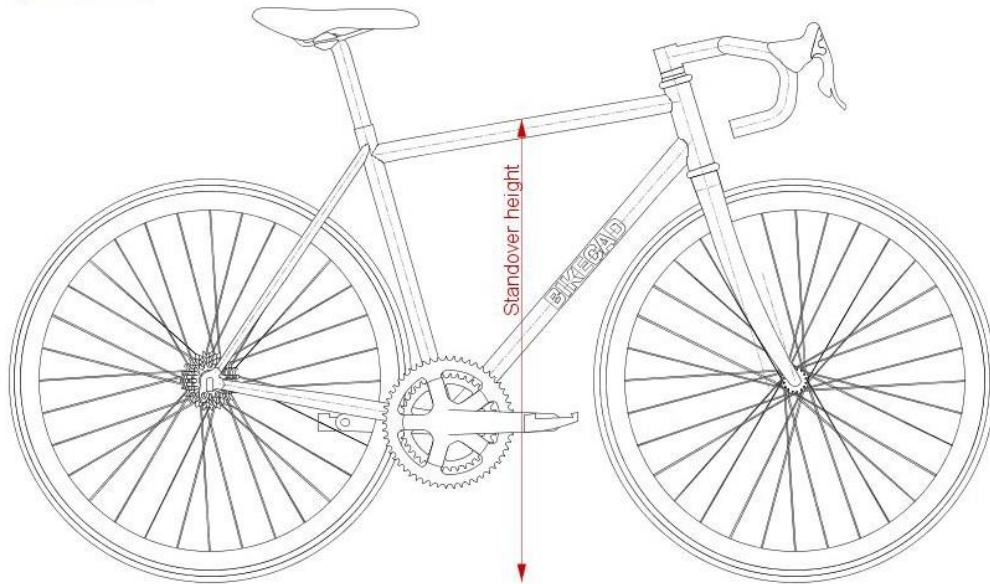
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Find more information at <https://transportation.wisc.edu/>!

Initial Bike Fitting

1. Buying the Right Bike

Buying the correct frame for your body is a crucial first step in making sure you and your bike are a good fit. The best way to make sure your bike is the right size is to stand over your bike (with shoes on) and make sure you can straddle it flat footed with minimal clearance between the top tube and your body.



2. Picking the Right Seat

Having the right seat is the next step before fitting your bike directly to your body. There is a wide array of options (hard vs soft/ cut-out or solid) but the best way to decide on a seat is to actually sit on it, and even take it for a ride if you can. Most women's seats are a little wider in back to accommodate wider hips, but some men prefer women's seats for the comfort of more support.

To ensure a proper seat fit, follow these suggestions:

- Wide enough → Supports your sit bones
- Flat enough → Prevent sliding forward while riding
- Firm enough → Prevent sinking in too much, remain comfortable
- Try a cutout seat → Can help reduce soft tissue pressure, especially for males

3. Adjusting Your Seat

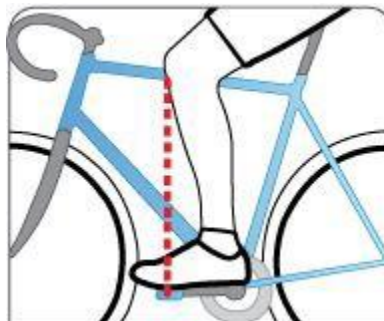
Beneath your bike seat you will notice the option to change its tilt and height. Most commuter bikers will ride with a seat level with the ground, but this does not mean you have to. Be cautious of too much forward tilt as it can cause you to slide forward while riding. Also, too much forward tilt can increase pressure on your wrists and hands. If you notice achy wrists and hands after riding, try tilting your seat back for better weight distribution.



As far as the height of your seat goes, this needs to be a little more precise. The best way to find the right height is to sit on your seat with one leg hanging off (with shoes on) while keeping your pelvis level as pictured below. The heel of the leg that is hanging should barely touch the pedal when it is at the bottom of the rotation. You will know that you have the correct height if you bring the front of your foot onto the pedal and there is a slight bend in your knee.



The last thing you can do to adjust your seat is move it forward or backward. You want your seat to be positioned so that when your left pedal is at 9 o'clock (as pictured below) your knee is directly above the center of your pedal. If your seat is positioned too far forward it can lead to knee pain, and if it is too far back it can decrease the efficiency of your ride. If you adjust your seat as far back as possible, and your knee is still not directly over your foot or you are experiencing knee pain, you may need to consider purchasing a different seat post that allows for a greater set back. Before spending any money on a seat post consider going to a bike shop to get their advice.



4. Adjusting Your Handlebars

Just like with your seat, adjusting your bike's handlebars will be reliant mostly on comfort or what you are used to. The best way to choose a handlebar is to try picking up multiple sets at a shop and see what feels the best to you. There are a wide variety of handlebar styles, widths, and different types of brakes as well, so comfort and efficiency will be the most important factors in your choice. Most standard bikes will come with straight handlebars. As far as the height of your handlebars go, most road bikers will ride with the angle between their torso and shoulders around 90 degrees so use this as a starting point and adjust to your liking from there. Some riders will be more bent at the hips than others, but if you follow the sizing tips mentioned above your hips should be in a reasonable position to ride safely and efficiently. If you decide to change your handlebar style it will probably change the previous fittings you made. Make sure you reposition your seat by referring to section three.

Common Injuries and Tips to Fix * **

Although bicycling is a great way to improve your health, those who ride are still susceptible to musculoskeletal injuries. Common reasons for injuries to those who bike include a rapid increase in miles, pre-existing injuries, current fit of your bike (see above!), and your technique. Below you will find some common injuries and tips to adjust your bike as well as exercises to amend and prevent injuries.

Head

WEAR A HELMET! The most common cause of head injuries occurs in those who fail to wear a helmet. Bike safety tips: <https://transportation.wisc.edu/bicycling/#safety-tips>

Neck

Pain in the neck may not be one's first thought when thinking about biking. However, it is a concern which should be addressed. The reach of the handlebars may be too far or too close. You may be riding with a seat that is too high. Last but not least, don't forget the fit of your helmet visor and sunglasses. If your visor is too long or your sunglasses fall down your nose, it will force you to extend your neck back further than desired which can lead to neck pain.

Back Pain

There are many different reasons that one may encounter back pain due to their daily cycling commute. The fit of your bike may be a contributing factor to this back pain. Having too far of a reach from your saddle to your handlebars, having your seat too high, and poor saddle fit can all contribute to your pain.

Front of Hip Pain

Another area at risk for injury or pain is the front of your hip. Try adjusting the reach and drop of your handlebars as they may be too low and forward. Anterior hip pain would also be a good reason to reassess your saddle height and tilt. If you look down when biking, you should see your lower leg and thigh line up. Pain will possibly develop if you see that your knee is either bowing in or out.

Knee

One of the most common areas of pain in bikers is the knee.

Front of Knee

- Having your seat too low causes excessive flexion in your knee at the top of the pedal stroke, which will lead to knee pain. Other riding errors include having your seat too far forward, riding in low gears or having a low pedal cadence. Check the fitting of these few things as well as assess your flexibility to stop and prevent pain in your knee.

Middle of Knee

- If you have pain on the inside of your knee your pedal may be too wide causing your knee to bow in. When this happens your lower leg and thigh will not be in line. As with other causes of pain, your bike seat may need to be lowered.

Outside Knee/Thigh

- You may experience pain on the outside of your knee or thigh and this is called iliotibial band syndrome (IT band). To address this issue, check your pedal width (it may be too narrow), as well as your seat as it, again, may be too high.

Back on Knee

- If you have pain in the back of the knee while biking, it may be because your leg is snapping back at the bottom of the pedal stroke. Try dropping your seat down and moving it forward to alleviate this issue.

Wrist

Wrist pain is another common complaint from bicyclist, but the location of this pain and sometimes numbness can vary. Some may have complaints on the pinky side of the hand specifically, while others may have pain more towards the thumb side. This pain could be caused due to having too much weight on the handlebars compared to the seat, which may be due to having too far of a reach from your seat to the handlebars.

Below is a quick guide of common injuries that are associated with cycling and some quick fixes you can try:

<u>Painful Area</u>	<u>Possible Adjustment</u>
Front of Knee	Seat ↑ & backwards ←
Back of Knee	Seat ↓ & maybe forward →
Outside of Knee	Move foot further out on the pedal ←→
Inside of Knee	Move foot further in on the pedal →←
Achilles	Foot forward ↑ on the pedal
Pressure on bottom/outside of foot	Wedge to the inside
Saddle- front & center	Bars ↑ &/or tip of seat ↓

Posture

Neck

- Try not to ride with head shearing forward on the neck putting stress on the posterior aspect of the upper cervical spine. Attempt to actively hold chin in a chin tuck position to keep spine in more neutral alignment.

Back

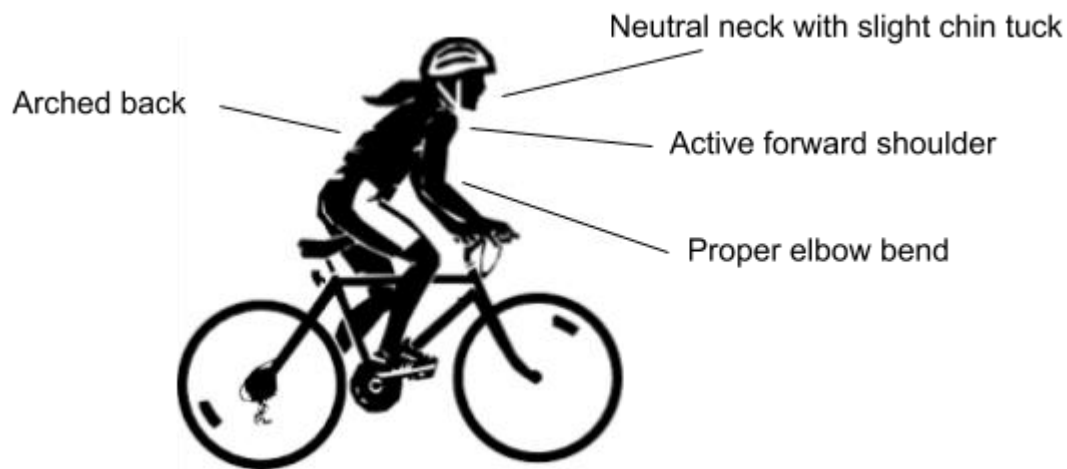
- Arched (flexed) to absorb bumps and bike's impact with the road

Elbows

- Bent slightly to absorb impact and act as shock absorption

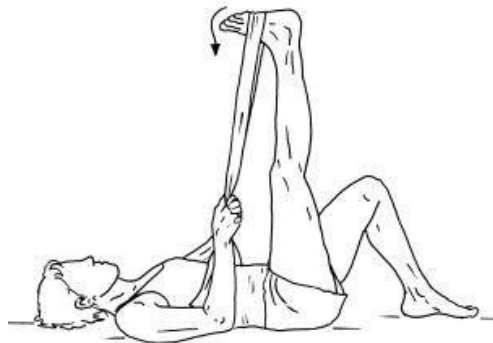
Shoulders

- Should be held actively forward as to not passively hang on the shoulder ligaments. Forward shoulders help with impact acceptance and keeping a slightly arched back with bent elbows.



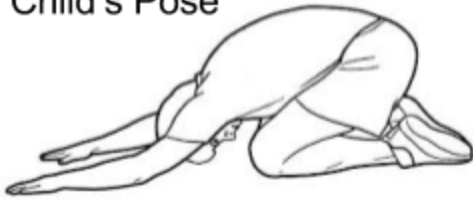
Common Exercises

- Hamstring Stretch:
 - Tight hamstrings are a culprit of a variety of different biking related injury, such as neck pain, low back pain, and posterior leg pain.
 - Hold stretch for 30 seconds, relax for 10 seconds, and repeat 2 more times. Do this once or twice a day.

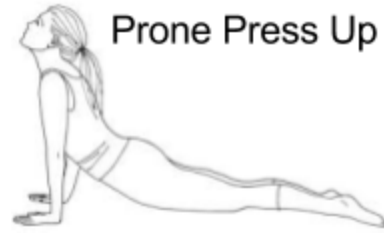


- Back Stretches:
 - Gentle stretching can loosen up a tight back before or after a ride.

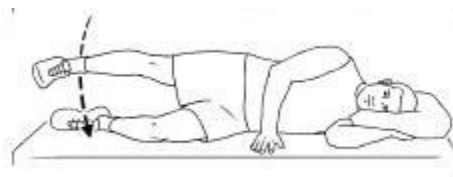
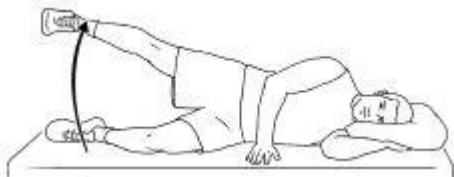
Child's Pose



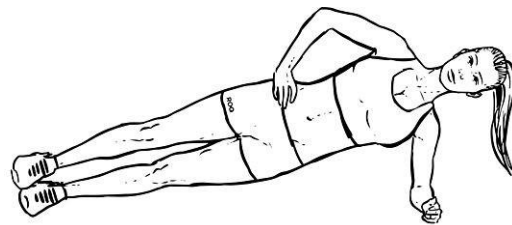
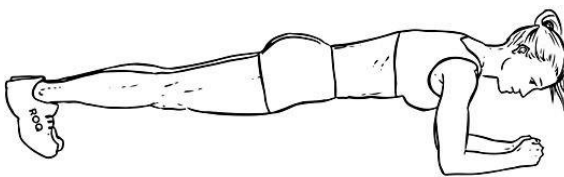
Prone Press Up



- Hip Strengthening for Knee Pain (help weak glute muscles):
 - Perform side lying leg raises with heel sliding up wall until your hip starts to fatigue and you cannot reach leg as high as previous reps. Wait 30-60 seconds and perform again. Do 3 sets at 2 different times during the day.



- Core Strengthening: The core muscles are vitally important to both performance and injury prevention when biking. The core muscles are important for stability on the bike. Without proper stability on the bike, a biker is at greater risk for experiencing knee pain, hip pain, low back pain, and neck pain.
 - *Planks*: excellent exercise to improve core stability. Hold planks for 60 seconds. Rest for a minute and repeat 3 times. Perform both normal planks, and side planks once a day. When performing planks, it is important to keep your hips in a neutral position.



Bike fitting assessments and evaluation may be available through the UW Health Sports Medicine group: <https://www.uwhealth.org/news/the-benefits-of-a-bike-fit.html>

References

- Surly Bikes: https://surlybikes.com/info_hole/spew/spew_bike_fit
- “Fitting Bike to the Body or Body to the Bike” presentation-Dan Enz PT, SCS, LAT and Travis Obermire DPT, SCS, CSCS
- Cervélo :The Four and a Half Rules of Road Saddles: https://www.cervelo.com/en_US/
- BIKECAD: <https://www.bikecad.ca/taxonomy/term/25?page=2>

*Brought to you by students from the University of Wisconsin-Madison Doctorate of Physical Therapy Program

**DISCLAIMER: We are not medical professionals, and we are not professional bike fitters, consume knowledge at your own risk. We are not responsible for any injuries that occur due to self-bike adjustments.

COMMON BICYCLE COMMUTING CONCERNS

Bicycle commuting can be daunting, and many people share the same concerns. Here are a few common barriers to bicycle commuting and possible solutions. If you'd like to talk through some of your fears with a seasoned bicycle commuter, please send an email to bicycle@fpm.wisc.edu.

- I don't think I'm in shape

The bicycle is an amazingly efficient machine. You may be surprised to discover that commuting by bicycle takes less effort than you anticipate. If it has been a while, just start slow. Try taking a loop around the block or a short ride with the family. Try biking to work on a day when you aren't working to see how long it takes. Google Maps can give you an estimated amount of time, then give yourself a cushion on top of that. Consider biking one way to work and then putting your bike on the bus (every Madison Metro bus has one) and taking the bus home. Eventually you'll be biking the entire way and back.

- Bicycling is uncomfortable

Whether it is sore wrists or a sore behind, there are lots of ways that riding a bike can be a pain. But it doesn't have to be that way. There are simple adjustments you can make to your bicycle or accessories you can add to improve comfort. See our "Proper Bike Fit" Handout for complete information.

- I'm worried about weather

Some say there is no poor weather, only poor planning. Winter weather, heat or rain can be compensated for with appropriate clothing. See our "Winter Biking" and "Bicycling in the Rain" handouts for complete information.

- I live too far from work to commute/too long

Five miles or less is a very bikeable distance for the average person. From the Beltline highway to campus is 4-8 miles from any direction, so if you live inside the highway boundary around Madison, there is a good chance that you live less than 5 miles away. A beginning bicyclist in city traffic will likely average 10-12 miles per hour, meaning that it will take about a half hour to go five miles. In rush hour traffic you may find biking is either comparable to or faster than driving, and most likely always faster than taking the bus.

- I'm worried about getting sweaty or work clothing issues

Most people can bike at a pace they do not get sweaty bicycling on all but the hottest days (or unless they are over-dressed in winter weather). Use your bike's gears to find that pace and wear your work clothes on your bike commute. Alternatively, keep your work clothes at work and wear a separate set of commuting clothes. A small towel or wet wipes can help you freshen up on arrival.

- I have errands or childcare obligations before/during/after work

Bicycle commuting may not be the right choice for you every day. On some days you may have obligations that mean another mode will work better for you. But some commuters will find, with just a little planning and extra effort, they can bike to work every day, even when they have errands to run or childcare to transport their children. There are many bags, cargo bikes, and trailers available on the market now for hauling items or kids that are easy to use. And as kids get older, they might enjoy riding their own bikes alongside you to school or their daycare. You may find it provides great quality family time. And as kids get old enough to venture away from home on their own, a bicycle gives them independence to go further without having to be driven everywhere.