THE BEGINNER'S GUIDE TO BICYCLE COMMUTING



BICYCLE UNIVERSE



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An Introduction

I'm happy to hear you are considering bike commuting, a fun and healthy way to get around! Perhaps you're trying to save money by driving a car less, or want to "go green" by cutting down on emissions. Maybe you want to increase your independence from an unreliable bus schedule and be in control of when you get to work or the store. Or possibly you've seen a bike commuter ride by you every day while you're stuck in traffic in your car and think, "I wish I was doing that!"



Not much is more satisfying than casually riding by stop-and-go traffic

You likely have many questions before you begin, though. While bike commuting can be both easy and safe, it is often intimidating to those who have not relied on a bicycle for transportation since childhood. What do I wear? How do I carry my stuff? Won't I smell bad?

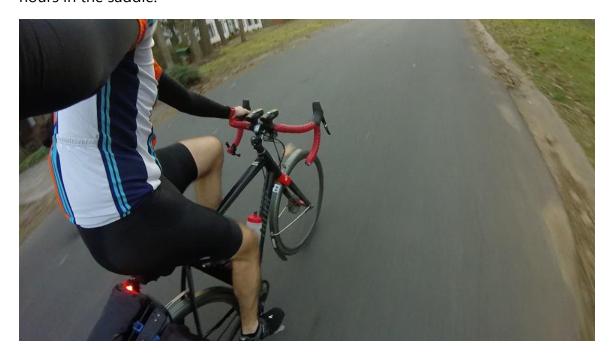
The great thing is that bike commuting doesn't have to be hard, as all you truly *need* is your bicycle! Any bicycle in safe working condition will do, whether it's a mountain bike, road bike, or even that steel Schwinn that's been in your garage since the 1980s.

What Do I Wear?

What you choose to wear on your commute can vary on the local temperatures, the season, and the distance of your commute. If you have a very short commute

of only a few miles or less, you can easily commute in "street clothes," or whatever it is that you wear for work. If you've ever been to a large city such as New York City or Boston you've no doubt seen bicyclists riding in full suits!

If your commute is a bit longer in length, or you have a place to change clothes at your workplace, then it may be ideal to wear dedicated cycling clothing like padded shorts and a jersey, or even just clothing made out of sweat wicking material (such as the athletic clothing put out by brands like Under Armor). Some find this more comfortable, especially if your normal riding involves long hours in the saddle.



Longer commutes may be comfortable in cycling clothes, but they're not necessary

How Do I Carry My Stuff?

If you are bringing things with you to work, be it a change of clothes, a packed lunch, or both, then all you really need is a backpack or a messenger bag to carry all of your things. If your bicycle has rack mounts or already has a rack installed, then you may want to look into pannier bags to quite literally take the weight off your back and make yourself a little more comfortable.

Won't I Smell Bad?

Unless you are pedaling hard like you are in a race, you won't be building up much of a sweat before work. My strategy for bike commuting each day is to

leave early enough to be able to pedal at a relaxing pace and have time to change when I get to work without needing to rush. As a precaution, I always take a small towel and baby wipes with me in case I do get a little sweaty, even though I typically don't need them.



You won't always get sweaty on a commuter, but the times that you do having these will be a lifesaver!

Are You Ready To Get Started?

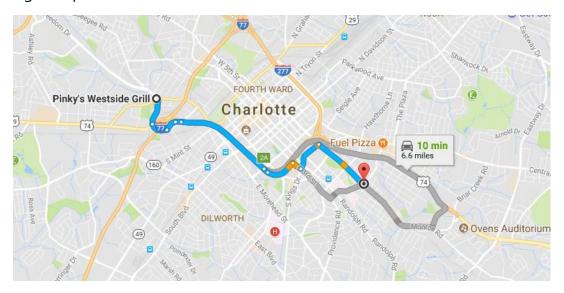
Hopefully at this point you are a bit less intimidated by the thought of commuting by bike and are considering giving it a shot, and that's good! Commuting by bike is a healthy way to get around and will help you feel refreshed and relaxed, far more so than getting around by car. Whether you want to try it one or two days a week when the weather is gorgeous or you want to be an all-weather warrior and commuter rain or shine, this will be the guide for you!

Over the next few chapters, I will be going into more depth on the different aspects of commuting and preparing for commutes, in the hopes that I can make things easier for you no matter your distance or goals.

Planning Your Route

You're ready to pack your bag, hop on the bike, and go! But a question still lingers: what's the best way to get there? Chances are you've already been driving to work for a while and are familiar with how to get there by car, but getting there by bike is often a bit different. Bicycles are prohibited from interstates, and depending on your comfort level with traffic you may not wish to ride many other thoroughfares between your home and the office. Thankfully in the wonderful age of the Internet there are tools and resources you can depend on to help you on your way.

Besides simply asking other local cyclists the best ways to navigate through a certain area, one of the most important tools I've found that I initially used to plan routes to work – and still frequently use to find routes to stores all over town – is Google Maps. Google Maps is a great way to find directions to almost anywhere, and actually has a number of neat features that are specifically for bicyclists. To use my current hometown of Charlotte for an example, let's say we will be going out to eat at Pinky's with some friends and will want to grab a few comic books on our way home at **Heroes Aren't Hard to Find**. Type that in to Google Maps and...



...it wants us to hop on the interstate?! We can't do that by bike! Fortunately for us, Google Maps can adjust its directions for bicycles. Simply click the bicycle icon at the top of the directions page where you type the address you'll find that roads appropriate for bicycles are chosen instead. And if you navigate to the menu at the top left of the webpage and select "Bicycling" it will also highlight

Pinky's Westside Grill O

St. 27 min
3.6 miles

Certral Ave
Fuel Pizza

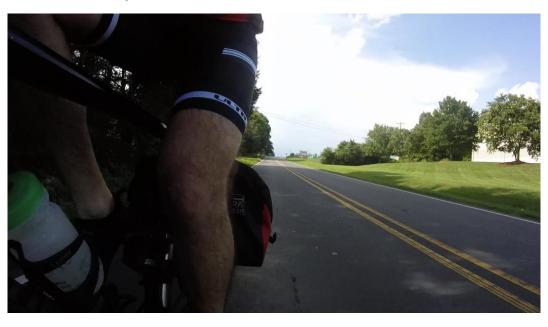
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bike lanes and marked bicycle routes, if available, which may prove helpful for finding the best way to the store or to get home.

Now while using Google Maps as a tool can be incredibly helpful, the distance between your home and your workplace may mean you have a multitude of ways you can get there and then get home. What may feel easy or comfortable in a car may not be so fun on a bicycle, and likewise what may be a frustrating road to drive on may be a pleasant ride on a bike. What options may you have and how should you choose?

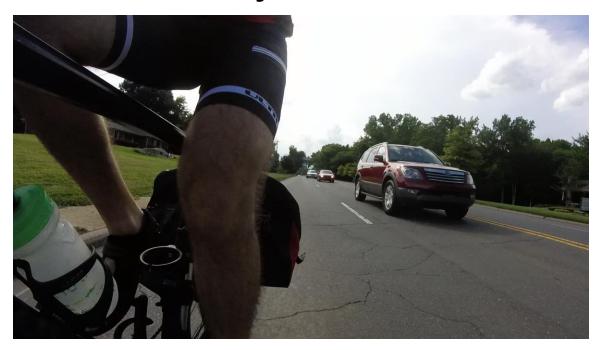
Rural and Country Roads



Quiet country roads are the type of roads that weekend cyclist flock to. On Saturday mornings they are often loaded with bicyclists getting in their weekly group ride, and during the week they can also prove to be quite relaxing and peaceful for the commuter. Some of my favorite mornings are riding these quiet roads to work.

What to consider: While country roads often have a low amount of traffic, they also typically have narrow lanes and, depending on foliage, many blind corners, which means the little traffic you do encounter may have difficulty passing you. Always exercise proper lane positioning on country roads and do not encourage motorists to pass you – such as by waving them on – when it is not safe or the oncoming lane ahead is not clear or visible.

Multi-Lane Roads and Thoroughfares



Despite your desire to keep your route as low traffic as possible, there's a good chance you will also need to use some larger roads to get to where you need to be. The great thing about these roads is that they are often the shortest distance to get somewhere, and the multiple lanes means that drivers have an easier time passing you since they can change lanes to pass without crossing over to the other side of the road like on a country road.

What to consider: The busy nature of these roads means that many drivers do not expect bicyclists to ride on them, in which case you may experience or witness some unusual behavior by confused drivers. Always make sure to make yourself

as visible as possible, and if your state allows you to take the full lane then I highly recommend doing so in the right-most lane.

Bike Lanes



Bike lanes are one of the most sought-after features for bicyclists, especially to those newer to the sport. There's no question that bike lanes make people feel more comfortable on a bike, and it's refreshing to not have to worry about traffic queuing behind you while a driver waits for an opportunity to safely pass. And as a commuter who may be on the road at some of the busiest times of the day for traffic, you may experience the blissful feeling of casually cruising by an endless line of bumper-to-bumper traffic by using the empty bike lane next to it.

What to consider: When bike lanes are in a very busy commercial area, such as on a road with numerous shopping plazas, the epidemic that is distracted driving becomes ever apparent as drivers fail to check their mirrors before making right turns. Always be on high alert and keep your fingers by your brake levers just in case whenever you are approaching an intersection while riding in a bike lane.

Greenways and Sidewalks



Greenways are an extremely popular feature in many large cities, and the trend is catching on fast as many smaller cities and towns are scrambling to build their own. Typically presented as a place for recreation for most people, they can be an extremely enjoyable way to avoid busy roads and I include them in my rides whenever possible, as the beautiful greenery all around me is far better to enjoy than the endless shops and homes that otherwise surround my commute. Likewise for sidewalks, being able to ride separate from cars and trucks can make your commute much more enjoyable.

What to consider: Typically on greenways and sidewalks, pedestrians will have the right of way, so you'll need to ride at a reasonable speed and yield to others – even if they are themselves not being very courteous to those around them. The amount of foot traffic may also be much greater when the weather is better, which means more foot traffic for you to navigate through. Additionally, local laws may prohibit bicycles from sidewalks in some areas or completely altogether, so be sure to check local and state laws before doing so to avoid getting a ticket.

And Off We Go!

Now that you've found your route, take a relaxing spin on your day off and scope out your ideal route, making sure that it's both safe and enjoyable to ride. Don't forget, even though cycling to work is a practical and healthy activity, you'll still want to keep it fun

Choosing a Bag – Backpack or Pannier?

If your bike doesn't have rack mounts to hold a pannier, then this is a very simple question to answer: backpack! But if your bike does have a rack or mounts for one you could still go either way. Neither option is superior to the other, and they both have benefits and downsides. I have used each for extended periods of time, and while I prefer a pannier because I can get the weight off my back and can expand my carrying capacity with a second bag when needed, I occasionally miss the convenience of a small backpack when I want to hop into a store for a minute on my way home and now have the hassle of awkwardly carrying the pannier with me. While backpacks are easy and can be cheap to buy if you don't have one already, you should strongly consider panniers if you intend to expand your bike commuting beyond riding to work; I often use mine to carry packages to the post office on my way home from work to save trips.



Packing Clothes

Unless you're one of the fortunate few with an incredibly short commute and the perfect temperature and humidity level for riding bikes, you're probably going to want to change when you get to work. And I don't just mean that you'll be riding in bike shorts and a jersey – you just might not want to work all day in the same clothes you ride in, especially if you are riding in a stifling hot summer or a freezing cold winter.

Packing clothes is straightforward regardless of what you need to bring with you, and the only thing I am concerned about when packing is minimizing wrinkles. My employer currently has a rather casual dress code, so I'll fold over my jeans, place the rest of my clothes on top (shirt, underwear, socks), and then fold the jeans over again as if you're making a "sandwich" with your clothes. When my workplace was much more formal I did much the same with dress clothes, instead taking dress pants and making the "sandwich" with a dress shirt all the same. The only additional tip I can offer is that, especially with dress clothes, don't fold up your bundle until right before you pack your bag – leaving the bundle folded overnight in your bag will likely result in very wrinkled clothes!



As for shoes, I'll stack them together with soles facing outwards so that they take up as little space as they can. If possible, leave a pair of shoes at work at your desk or in a locker, as it's one less thing to carry each day!

Packing Lunch

If you bring a lunch to work each day, it's best to pack your lunch in its own bag first (re-using a plastic grocery bag is perfect) as a precaution to contain any spills before placing it in your pack or pannier with the rest of your stuff. The last thing you want is for your clothes to smell like the spicy garlic sauce from your take-out the night before! I typically pack all my lunch items in re-usable plastic containers to prevent any items from getting crushed (my commute has a lot of rough roads), and to again minimize spills.

And what about items that may be more prone to spilling, such as soups? Freeze it the night before! Frozen soup in a container won't spill, and you'll be able to thaw it before lunch.

Other Items to Consider

As I mentioned in the first article in this series, baby wipes and a small hand towel are recommended in case you break a sweat on your ride. Being able to wipe down when you get to work can help you feel a whole lot better before you start the day!

In addition to packing for work, you should also make sure to have a few emergency repair items for the bike just in case you get a flat on your way. A basic kit should include a tire lever or two, a spare tube that's the correct size for your tires, and either a mini-pump or CO2 cartridges. I would never take anything less than this on a bike ride; they take up practically no space in your bag (if you don't carry them on your bike already), and when you need them, you will *really* need them!



Time to Pack!

When packing your bag, it's usually best to place the heaviest items at the bottom of the bag for stability, which for me is usually my bundle of clothes. Then pack the rest of your stuff – be it your shoes, a lunch bag, or even a book or laptop. If you're using a backpack, make sure the straps are adjusted so that it's comfortable when on the bike in a riding position – the height of the backpack for standing upright while walking or hiking may leave the bag in an extremely uncomfortable position when you're leaning forward on the bike. If you're using a pannier, make sure it and the rack are both secure and that the bag doesn't bounce around when loaded.

Equipping Your Bike

Whether you're commuting to work, going out for an intense group ride, or just pedaling on the local greenway, it's never a bad idea to be prepared for a simple repair. Typically the worst you'll encounter is a flat tire, which thankfully is a relatively easy fix for the majority of bikes. While rarely you'll suffer something more severe, like a broken chain, broken derailleur hanger, or broken spokes in your wheel, I'll just focus here on the basic essentials.

I'm not saying you need to train as a mechanic and make your bicycle a rolling bike shop just to ride to work, but you should be prepared for these basic "emergencies"— especially when it may be the difference between a ride to work and a miserable walk to work (or even back home to your car!) while pushing your bike.

Tools For Fixing a Flat

The roadside repair you will most often encounter will be a flat tire. Thankfully this is very easy to pack for, the tools you need are cheap, and all the items you need take up practically no space at all in your bag. Firstly, should have tire levers, which come in many sizes and materials. Generally plastic ones will do, but some rim and tire combinations prove impossibly tight and metal levers or metal core levers may be desired. Just be careful – metal levers can scratch or damage rims if used incorrectly. And as for the screwdriver you may have used when a kid? Avoid using one at all costs, unless you really like poking holes in brand new tubes. One or two levers should be all you need to keep with you.



Next you will need a tube that's the correct size for your rim and tire. Besides the rim diameter of your wheel – 26", 29", 700C, etc. – you should pay attention to the *width* of the tube as well. A tube for 700x23C tires may indeed fit inside a 700x45C tire, but it will stretch beyond what it was designed to and may lead to premature failures or tears. Sometimes it may be prudent to carry two tubes, especially if you're prone to flats, or simply a patch kit in addition to a tube. Many companies like Park Tools make peel-and-stick patches that can be easily applied on the roadside, much quicker than a traditional patch with vulcanizer that needs time to cure.



Finally, you'll need a pump or CO2 cartridges, as having a spare tube is worthless without a way to pump it full of air! Usually there are two styles of portable pumps, which are often called mini-pumps or frame pumps, and you should get the right size to avoid wasting effort. Some pumps are designed for *high volume* (HV), which would apply to fat mountain bike tires or hybrid tires, and some are designed for *high pressure* (HP), such as road bike tires that can go over 100PSI! HV will be unable to get a road bike tire up to the proper pressure, and a HP pump will take a *long* time to get a large tire up to pressure, so get the one that suits your bike best. Most frame pumps will include a bracket to mount directly to your bike, but they also fit inside a bag fairly easily.



One quick trick I learned involving pumps is to wrap about 12" of duct tape around the pump, which can be peeled off as if it was on a new roll. You can peel a piece off to be used as a tire boot to cover a slash in a tire that otherwise would cause a tube to poke through the tire casing, tape a broken spoke to another spoke to stop it from hitting (and scratching!) your frame as you hobble home, and a number of other uses. I thought it was a silly idea at first but the humble duct tape has bailed me out more times than I can count!

Multi-Tool for Roadside Adjustments

A handy and simple tool to carry with you is often called a multi-tool. These tools are compact and generally lightweight, and will be of use for most adjustments you may do on the roadside, such as tightening loose handlebars, adjusting your seat height, or making a quick cable adjustment. Some basic

tools, like the Park Tools MT-1 on the left, can adjust almost every hex bolt or screw head on most bikes, whereas some more advanced tools like the Crank Brothers M19 on the right have not only hex keys and screwdriver heads, but Torx heads for disc brake bolts, a chain breaker, and even spoke tools all built into the same unit which folds up into a small package. And the great thing about these multi-tools is that they will work on practically any bike – the Park MT-1 in the picture was purchased when I was 13 years old and I've been using it on every bike (BMX, road, mountain, cyclocross) I've owned since!



Emergency Lights

While not a mechanical failure to prepare for, keeping emergency lights with you will help you both comply with your local laws but also ensure you are visible to other road users if you happen to unintentionally get caught in the dark. At the bare minimum you should have a blinking taillight and a blinking headlight if you at all expect to be on the road near dawn or dusk. Most manufacturers make small lights that are easy to remove with quick-release brackets or bands, so you can remove them to prevent theft when your bike is locked up. Lights have improved by leaps and bounds over the last decade thanks to LED and rechargeable battery technology, so it's not hard to put inexpensive quality lights on your bike to make yourself visible in case you end up caught in the dark.



Riding at Night

Riding in the dark is something you'll need to be prepared for as a commuter if you wish to ride throughout the entire year, or if you simply have a work schedule where you'll be commuting in the early hours of the morning or later hours at night. Much like severe weather, riding at night can be intimidating to those who have not done it before, but it's not much different than riding in the sunlight! Today I'll break down some basic tips for making yourself visible so you can not only get to your work and home safely, but also comply with your local laws. But first...

Remember: The Lights Aren't Just for You!

One of the most common arguments for cyclists to not use lights at night is the same as why many drivers refuse to turn on their lights at dusk, dawn, or in inclement weather: "I can see just fine!" What you need to realize is one thing: the lights aren't just for you! While you may think you see well enough thanks to ambient light from streetlights or the moonlight, the driver in the car coming up behind you at 45 miles per hour may not be able to see you at all! Lights on a bicycle aren't just for you to be able to see, they are also so you can **be seen**.



The Two Types of Bicycle Lighting

There are two types of lighting you can use on your bike: active lights, which are lights that are actively powered by a power source (usually a battery), and passive lights, which are essentially reflectors and other reflective material that require a separate active light source to "light up," so to speak.

Active lights – including white headlights and red taillights – should be the bare minimum you use on your bicycle at night, and are typically required by law after sunset and before sunrise (check local laws to be sure!). Passive or reflective lighting are great to use as well, but should not be relied upon as your sole source of light and instead should be used to *supplement* your regular lights.

Mounting Your Lights

Even the best light in the world will not serve much use if it is not installed correctly, so make sure you angle your lights properly. Headlights should be aimed in a manner that they light up the road ahead of you; lights angled directly down will be useless when moving faster than a walking pace, and lights angled upwards will be visible to other road users but will do nothing to light the road for you to see where you are going. As for taillights, a red taillight aimed directly at the ground or to the stars will not be visible by a car from behind until it is extremely close, whereas aiming a taillight directly behind you along an imaginary line parallel with the road will be visible from the longest distance.



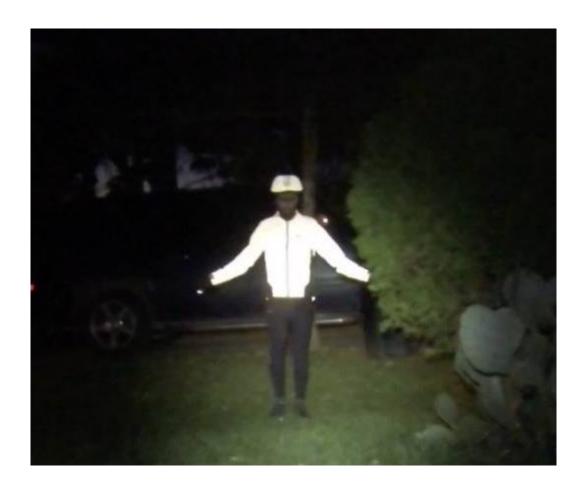
As an additional tip, if you run two headlights, try angling them slightly away from each other. This will give you a wider patch of lit area on the road and will increase how much you can see.

Increasing Your Visibility with Reflective Gear

A common recommendation for night riding is to wear brightly colored shirts or hi-vis colors, but the unfortunate reality is that the color you wear does not have nearly as much of an impact as you would think in the dark. The best way to increase your visibility at night, in addition to lights, is to incorporate reflective gear into your setup.

In the warmer months of the year you may wear t-shirts or cycling jerseys, which don't offer much in the way of reflective area. You can supplement your lights with an inexpensive and lightweight reflective vest to increase your visibility dramatically.

In the colder months, finding reflective gear can get a little easier as most cold weather gear incorporates reflective fabric into the designs. Most jackets will have some reflective striping incorporated, and others like my Sugoi Zap jacket shown below (along with matching helmet cover), are fully reflective under light but look like normal jackets in the daylight.

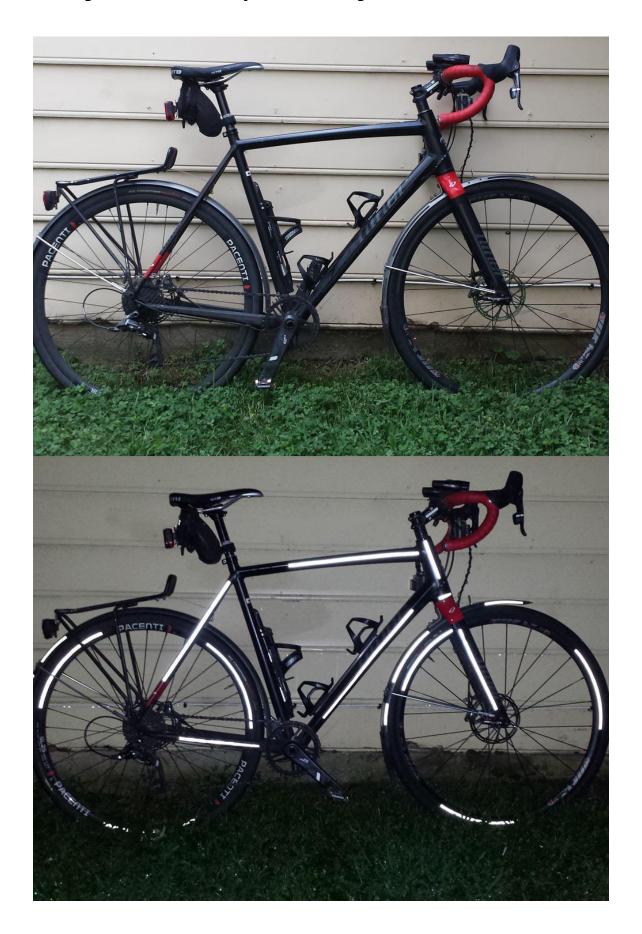


Increasing Your Bike's Visibility with Reflective Tape

Adding reflective elements to your bicycle is another great way to increase your visibility at night, especially from the sides where your lights aiming front and rear are the least effective. Most bicycles already come with reflectors installed, but they are often removed immediately after purchase due to aesthetics or, particularly with spoke reflectors, being noisy. Fortunately, there are better alternatives like reflective tape! Reflective tape is cheap and comes in a number of colors so you can closely match your frame. Or, if you don't want to permanently attach tape to your frame or can't find a good color match, you can use reflective arm bands and Velcro straps instead for a removable solution, or invest in tires with reflective sidewalls.

Here you can see my commuter bike covered in black reflective tape from 3M. The tape is ¼" wide and was applied to a few areas of my rims, my frame, and my fenders. You can't see that I have any tape on the bike at all when viewed in the sunlight, but with lights shining at it at night the bike glows. (Phone flash used to simulate car headlights).

The Beginner's Guide To Bicycle Commuting



A Note on Daytime Lights and Trail Lights

With batteries getting better and lights becoming more powerful, brands like Cygolite and Trek are pushing for cyclists to use daytime lighting. Many cyclists, myself included, believe that running bright flashing lights in the daytime can increase your visibility, and in my personal experience I have noticed a positive difference in how people drive around me since I started using daytime lighting, especially in heavily trafficked areas and bike lanes. However, due to their brightness, it is important that on the road and on greenways you *do not use daytime settings for these lights at night!* These lights emit incredibly bright flashes to grab someone's attention in the daytime, yet they can temporarily blind a driver at night much like a car's high beams. You can still use these lights, of course, but be sure to use the modes designed for nighttime riding. The same can be said about trail lights, which are designed to be used on mountain bike trails free of motor traffic and are typically *much* brighter than lights that are safe to use on the road; if you decide to use them on the road, use the lower settings that are approved for road use.

Bike Commuting: Planning for the Weather

When I started commuting to work by bicycle a few years ago I began checking the weather reports every day. At first, it was to plan whether I would be riding to work the next day at all, as I only wanted to ride when it was nice out. As I commuted more and more and realized how much more enjoyable it was than driving to work, and my daily weather checks changed from, "will I ride to work tomorrow?" to, "how will I dress when I ride tomorrow?"

Most cyclists are fair weather riders, which is completely reasonable as people generally enjoy being outside when the weather is best, and there's nothing wrong if you only want to ride when it's nice out. However, some will want to ride most days except when it's raining or snowing, and others may want to ride in *anything*. Today's article is about the first group, and next week I will cover riding in rain and snow.

High Heat

Riding in high temperatures will likely be unavoidable in the summer. On one hand, it's easy to dress for, because you simply wear as little as possible, but on the other hand when the temperatures get really high you'll end up sweating regardless of how little you wear. Riding at an easier pace than usual, as well as being sure to have at least one bottle of ice-cold water that you sip regularly as you ride, will help mitigate the sweating a little



What to wear? If you're wearing cycling clothes, wear the lightest weight jerseys you have along with cycling shorts. If you normally wear regular clothes when

riding, you may want to try some athletic clothing from the likes of Under Armor, Starter, Champion, or a number of other brands that now offer affordable athletic gear – a polyester blend shirt with gym shorts look perfectly "normal" on the bike if you don't want to buy cycling clothes or you feel self-conscious in lycra/spandex. You should avoid wearing cotton at all costs, however, as it will simply soak up sweat and doesn't take long to start smelling bad.

Chilly Temperatures

Cooler mornings start to creep in at the end of summer, and dressing for the various levels of "chilly" can be a little tricky at times. If you wear too little, you may feel freezing despite mild temperatures, but if you wear too much, you'll end up drenched in sweat. What's the best way to tackle the chilly temps? Layers!

Layers are important for regulating your temperature because wind speed, your bike speed, and your effort (and as a result, body temperature) may vary over the course of the ride. Wearing a lightweight jacket over a shirt or jersey is preferable over just a sweatshirt or heavy weight jersey because if you get warm you can open or remove your jacket, whereas the sweatshirt or heavy jersey must stay on. The reverse is also true if you start to feel cold, because you can put that jacket back on or zip it up to hold more body heat.

What to wear? Convertible jackets can be one of the best investments you can make – they are essentially jackets with sleeves that zip off so you can convert it into a wind vest. I bought one shortly after I began commuting a few years ago and have used it as a vest in temperatures up to the low 60s on windy days and with sleeves on as a jacket all the way down to just below freezing. In chilly temperatures, versatility and being able to adapt is important!



Other ways to manage temperatures are arm warmers and knee or leg warmers, which are usually geared towards being worn with cycling gear but can be worn with regular clothes too. If you end up feeling too warm you can roll them up or take them off completely, and they fold up small and are thus easy to toss in your bag or in a pocket. Lightweight gloves can also help you feel warm as the temperatures drop, and like arm and leg warmers are easily removed and stowed away if you get too warm

Bitter Cold

Of all the temperatures you can ride in, extremely cold temperatures are usually the most intimidating, and they also typically trigger the most ridiculous (and hilarious) responses from coworkers who find out you rode your bike to work in below-freezing temperatures! As intimidating as it may be, you can be happy that most of the strategies you've learned for chilly temperatures also apply to the harsh winter cold!

Once again, layers are the name of the game. A general tip for riding in the bitter cold is that you want to start out your ride feeling slightly chilly, as your body will warm up when you start pedaling, and that heat will remain in your jacket and pants that are insulating you. You want to avoid sweating not only for the sake of simply not sweating, but sweating in the cold can actually make you *more* cold as it chills your skin.

Typically, when I'm riding in colder temps – basically anything below the 40s Fahrenheit – I'll wear whatever my base layer is, be it a jersey or a normal shirt, and then a heavier jacket that zips. When temps are extremely cold, such as well below the freezing point, I may even add an additional layer under the jacket. To go along with the jacket I'll wear gloves – lighter gloves for the upper end of the temperature range and heavier lobster-finger gloves for the coldest days I face. Lobster gloves are wonderful because you keep most of the dexterity of regular gloves but your fingers stay significantly warmer because they essentially share warmth with each other.

For the legs, I will once again dress in at least two layers. Since I prefer to commute in cycling clothes I'll wear some tights over my cycling shorts, and in temps that drop well below freezing I may even add a second set of tights over that. If you're wearing regular clothes then you may find that some winter tights underneath your pants can help keep you warmer for your commute. Wool socks will also prove to be an excellent investment for the cold; you can pick up lightweight ones at bike shops and stores like REI, and heavier weight ones at stores like Cabella's or Bass Pro Shops. Wool socks are much more expensive

than cotton socks that most people wear daily, but for the cold weather they are well worth the money.

Are you facing colder temps where all I've mentioned so far isn't enough? Well don't forget a knit hat to wear under your helmet – anything will do! I'm still wearing a hat that I bought for walking around my college campus years ago and it fits under my helmet nicely. On the coldest of days you may also want to protect your face with a balaclava or scarf as well to block the wind from your skin.



Shoes are the final item I will touch upon because they are often the most overlooked. It's a common site to see cyclists in the winter cover their shoes in duct tape or wrap them in tight shoe covers to block the wind and cold, but there's a better way! If you're used to pedaling in sneakers you can get by with winter boots, but if you're sticking with cycling shoes and pedals then you'll be happy to know that most major brands offer winter cycling shoes (or boots) that insulate your feet incredibly well compared to normal, or dare I say "summer," cycling shoes. They don't come cheap, but if you spend a *lot* of time in extreme cold your feet will thank you!

Bike Commuting: It's Raining!

Rain, rain, miserable rain. Nothing can ruin plans for a good bike ride more than rain! But the secret is: riding in the rain can actually be fun!

Okay, I'll admit it's not always fun, but it's pretty easy to make it a tolerable experience, and I'm here to give you some tips on staying dry, warm, and safe if you commute in the rain.

Keeping Dry vs. Keeping Warm

Thanks to the wonders of modern fabrics, you could dress yourself head to toe in gear that is essentially completely waterproof and arrive at your destination completely dry (well, except for that outer layer!). However, if you are riding in temperatures warmer than your gear is designed for you may end up sweating up a storm inside your jacket and end up wet regardless!

When the temperatures are really warm – say, 70 degrees Fahrenheit and above – I simply suck it up and accept that I'm going to get wet. I've tried a rain jacket in warm temperatures before, but it just makes me sweat and I end up just as wet, yet less comfortable, than if I wore no jacket at all. Cycling clothes are good here, as are polyester shirts and shorts. Cotton is a big no-no unless you want to feel miserable and smell terrible afterwards!

As the temps get cooler, all the way down until it's actually snowing rather than raining, rain jackets and pants are a wonderful way to keep you dry. Great rain gear certainly isn't cheap, but if you expect to ride in the rain frequently it will be worth every penny. You don't have to go out and buy a top of the line Gore-Tex jacket for hundreds of dollars, but keep in mind that really cheap gear won't necessarily breathe well and may end up with a limited useable temperature window before you start sweating. Keep an eye on end-of-season sales in the spring to find the previous year's jackets on clearance – I was able to save quite a bit of money buying my stuff that way – or check stores that sell quality bikes but aren't strictly bike shops, such as REI.





Gloves can be a little trickier as the temperatures drop, as many are made of materials that will simply soak up water. Try to find gloves made of a neoprene type material that will keep your hands warm even when wet, or gloves that have a waterproof coating just like a rain jacket. Wool is also a great alternative since wool – unlike cotton – can keep you warm even when wet.

As for your head? I always make sure to wear a cycling cap under my helmet when it rains. I never understood the point of cycling caps until I tried one in the rain, and it did a great job of protecting my glasses from a lot of the rain coming down which previously made it difficult to see. In heavy rains I also appreciate a helmet cover (which also doubles as a wind shell for the helmet in the winter!).

Protect Your Feet

Keeping feet dry is probably one of the hardest parts about riding in the rain, but I've found the options are drastically different depending on the weather. In warm weather I actually found I enjoy riding in sandals the best, as I don't have to worry about trying to keep socks and shoes dry. My commuter bike has SPD pedals so I use sandals made by Shimano that clip into my pedals, but if you are using normal flat pedals then any sandals except flip flops should work fine as long as they securely strap to your feet.



In cooler or even cold temperatures, you can buy waterproof shoe covers, make your own waterproof shoe covers, or buy waterproof shoes. Unfortunately most of the cycling gear related to waterproofing your shoes is intended for use with "clipless" pedals and cycling shoes rather than sneakers or regular boots, but you can find some help at a local outdoors store or hunting store where non-cyclists are certainly concerned about keeping feet dry. Just make sure you roll your pants *over* the tops of your shoes and/or shoe covers. You can have the most waterproof shoes in the world but that doesn't mean anything when water runs down your legs and into the cuff!

I'm at Work, But What Do I Do with My Clothes?

When you get to work, something is going to be wet whether it's your outer layers or everything you wore. Letting clothes sit in a ball all day will lead to a gross mildew smell very quickly, so it's best to take care of them right away to eliminate the smell.

If you are wearing a waterproof jacket then chances are it isn't actually holding much, if any, water, so hanging it up like you would any other jacket would be fine. As for other clothes, you want to hang them in a place where they can air dry, but definitely do *not* just let them sit in a ball or in the bottom of your bag. Lockers are a great place to hang clothes, or see if you are allowed to install a hook next to your desk to hang a hanger. If you don't have a place to hang clothes to dry, then I would recommend putting your wet clothes in a bag that you can seal or close (like a trash bag or grocery bag) and wear something else on the way home, as those clothes sitting in a ball will smell pretty bad by the time you are heading home!

Tips For Riding in the Rain and Wet

Besides dressing for the weather, you'll need to adjust your riding accordingly to deal with wet roads just like you would driving. Braking distances will be longer, roads will be slippery, and visibility could be poor.

Bikes with rim brakes, especially road bikes with caliper brakes, will have the hardest time in the wet. Bikes with disc brakes will certainly perform better in the wet, but you're still limited by how well your tires can grip the wet road. Make sure to give yourself plenty of extra stopping distance when riding in traffic or approaching stop signs and red lights.

The biggest hazard you may face when riding in the rain may actually be the paint on the ground. A lot of paint used on roads today is thick "thermal" paint, and that paint can be as slick as ice when it's wet. Be extra careful when crossing stop lines, crosswalks, or changing lanes, especially when you are making a turn. This is even more apparent when temperatures drop below freezing as the water on the surface turns from "slick as ice" to quite literally ice.

Finally, if you have lights on your bike – use them! Visibility in the rain is typically pretty poor thanks to the rain itself, cloud cover, and the disturbingly large number of drivers with dirty windshields and ineffective wiper blades. Make yourself visible with blinking lights and bright clothing or reflective vests if you can. Additionally, depending on how laws are written in your state or country, lights may actually be required in the rain. The law may not explicitly mention bicycles, but if bicycles are classified as vehicles under law and vehicles are required to use lights in the rain, then the bicycle is certainly required to have a light in the rain as a result.



What About Snow?

Dressing for the snow isn't much different than dressing for the rain, except you'll need to account for the colder temperatures. Honestly, the hardest part about riding in the snow is the actual riding in the snow. The road conditions may differ depending on where you live – in Massachusetts where I grew up, 12 inches of snow meant you better not be too late for work, whereas in North Carolina simply 2 inches will shut the entire city down for a day or two. Furthermore, the bike you ride will drastically affect how well you can ride. I would avoid any bike with rim brakes, and if you have a mountain bike with fat tires and good tread you'll fare far better than narrow slick tires.



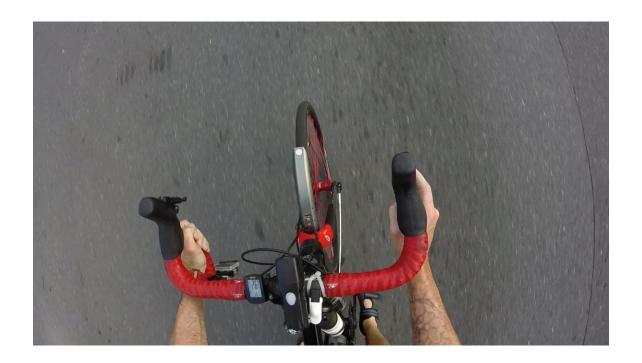
Bike Commuting: Picking Out a Bike

In my first article a few weeks ago I made it a point that you can commute on any bicycle in safe working condition, and I wasn't lying! Over the last few years of commuting I've used a road bike with skinny tires, a 20+ year old mountain bike with shifters that barely worked, and my current "gravel bike" that's featured in many of my pictures. But it's possible you may not have a bicycle right now at all, or you may have committed to commuting for a while and want to upgrade to something more suited to your specific needs. Or maybe, just maybe, you need to satisfy your N+1 bike cravings, where N+1 equals the number of bikes you need and N equals the number of bikes you have! Well here are some features to consider when bike shopping, whether it's for a \$50 Craigslist special or a \$5000 dream machine from your local bike shop:

Style of Bike

The first thing you need to consider when shopping for a bike is what style of bike you actually want to ride. Do you want a road bike that allows you to go fast, do you want a mountain bike to explore off-road, or do you want a bit of a do-it-all type bike such as a gravel or touring bike that handles asphalt and dirt paths equally well? Consider how this bike will be used, what your commute is like, and if you will also be using your bike for recreational riding other than commuting.

Handlebars and hand positions should particularly be considered when choosing a bike. "Drop" bars are typically only found on road, gravel, and cyclocross bikes, and while they typically favor an aggressive riding position they also offer multiple hand positions that can allow you to sit more upright depending on where you place your hands. "Flat" bars are typically found on mountain bikes and hybrid mountain bikes, and while they can be set up in an aggressive manner they typically favor a more upright position; hand positions are limited, though, so if you move your hands around a lot you may prefer drop bars. If you have a history of back problems, definitely look towards bikes that are more upright or "relaxed" in position.





Tires

You should determine what style of tire will suit your riding and then make sure your bike can accommodate them. Slick tires are preferred if your commute is relatively smooth and should be available for nearly any bike and rim aside from unusual wheel sizes or rim widths. Rough roads full of pot holes and frost heaves, however, will leave you wanting wider tires that allow you to run a lower air pressure to absorb some of the impact, both making your ride smoother and more comfortable. Commutes that consist of a lot of dirt, gravel, or off-road trails may want to consider knobby or semi-slick tires to better grip loose terrain.

Brakes



The style of brakes available depend on the style of bike you choose. Rim brakes are the most common type of brakes, and are called as such because they have pads that grab the rim of the wheel to slow you down. These come can come in many styles, including caliper brakes, cantilever brakes, and v-brakes, and work very well as long as the conditions are dry. If you plan on riding in the rain or other wet conditions quite a bit, I would strongly suggest you consider a bike with disc brakes instead. Rim brakes often perform poorly in wet conditions, whereas discs continue to work in the wet nearly as well as they do when it's dry (your tire grip in wet conditions, however, is another matter...).

Fender and Rack Mounts

I'll lump these together since when a bike has mounts for one it typically has mounts for both. Fenders are a consideration if you intend to ride in wet conditions (it doesn't have to be raining to be wet!). They keep direct spray from the road off of you, and while they aren't guaranteed to keep you 100% dry since they may splash a little bit, they will certainly keep you clean and prevent that dreaded brown stripe up your backside.

And as I've mentioned before, racks certainly aren't necessary for commuting and if you are happy commuting with a backpack or messenger bag then this may not even be a consideration for you. I will say, though, that since switching to a bike that has a rack which allows me to use pannier bags instead of a backpack, I don't think I'd ever want to go back.

[insert picture "03 – fender rack"]

Comfort

Finally, the most important aspect of picking out a bike is making sure it fits you and is comfortable to ride. Contact points like handlebar grips (or bar tape) and the seat can be easily and cheaply changed out based on your preferences, but changing out an entire bike is not! If you're unsure how to figure out if a bike is sized correctly for you, then you'll be happy to know that most local bike shops will include a basic "bike fit" with new bike purchases to ensure that the bike is set up correctly before you walk out the door.

What I've Learned Commuting: a 5 Year Reflection

Bike commuters are people I envied for years until I finally one day said to myself, "I'm riding my bike to work tomorrow." I had spent all my life relying on a car for transportation, and using a bicycle for anything other than recreation was a concept that felt foreign to me. At the beginning I did it occasionally, almost as if it was its own recreation ride, but quickly the bike surpassed the car as my go-to mode for getting around.

Starting Out Isn't Always Easy

My first foray into bike commuting was actually before I had even moved to Charlotte. It was unfortunately a short lived endeavor, as my workplace was not



terribly supportive in giving me a place to safely secure my bike, my coworkers often teased me, and the industrial park I had to ride through to get to the office was full of poorly paved roads and incredibly hostile traffic. It was not a recipe for fun, and after a few weeks I conceded to driving the car again.

That all changed after I moved to Charlotte, though. Charlotte provided me with bike lanes, something I never had where I lived in Massachusetts. Then I found an apartment less than 10 miles from work, and between work and my home I was able to plan a route that was primarily in bike lanes. Starting to commute by bike felt a little weird once again, packing everything in a backpack and riding to work instead of driving, but over the following months I was happy to find that

not only was my employer supportive of my cycling to work, but it really wasn't that hard! Riding to work 2-3 days a week quickly turned into riding 5 days a week, and riding to work was no longer something I had to *try* to do, but rather something that became as normal to me as hopping in the car feels for most everyone else.

Pack Early and Leave Early

Morning routines may change as you prepare to ride to work instead of driving, but I've found getting everything ready the night before can make mornings a whole lot less stressful, especially when I was starting out. This has been a key factor in making cycling to work feel normal. I put my lunch bag all ready in the fridge, get my clothes ready to toss in my bag, and check the weather before going to bed to make sure I know how to dress accordingly in the morning.

Leaving early not only allows you extra time to change and cool down when you get to work, but it will leave you time to fix a flat tire should you suffer one on your ride to work. Calling your boss to say you'll be late because you weren't prepared to fix a flat tire is never a fun call to make.



You'll Become More Alert and More Aware

Bike commuting not only made me a more alert and safer cyclist, but I feel it also made me a more alert and safer driver. Part of that is because I've spent a bit of time studying state and local traffic laws to understand how they apply to bicyclists, but a bigger part is because I am able to observe and participate in traffic from a perspective that most others never have. You quickly find how

invisible you can be to distracted drivers, which is strong encouragement to make yourself as visible as possible while riding. That invisibility you may feel crosses over into your driving, as you may find that quick glance over your shoulder or in your mirror really isn't always sufficient when changing lanes or turning into a driveway, or you may start to check behind you before opening a door when parked on the side of the street, or you may even discover how selfish or careless parking methods can negatively affect bicyclists and pedestrians.

Be a Good Example

When you are cycling on public roads you are a minority in the world of traffic, and that unfortunately means that the actions of one cyclist that drivers see often apply in their minds to all cyclists everywhere. One driver seeing you blow through a stop sign will plant a seed of anger that fuels Internet comment sections everywhere, and suddenly that one time you went through a stop sign without stopping becomes "All cyclists run stop signs and they don't deserve to be on the road!." Know your local traffic laws and be sure to make it a point to observe all those laws. It will not only protect you from a liability standpoint if anything were to happen to you, but being a good example of a law abiding cyclist on the road every day will demonstrate that, contrary to popular belief, bicyclists aren't the bane of drivers' existence after all.

It's Better to be Safe Than Right

Knowledge of traffic laws as well as cycling infrastructure (especially bike lanes) may reveal, depending on where you live, that bicyclists can legally do some things that drivers of motor vehicles may not, such as passing on the right. But the common phrase, "Just because you can doesn't mean you should," applies strongly here. You may be tempted to pass a large truck on the right side in a bike lane as you go through an intersection since you have the right-of-way, but if that truck driver fails to check his or her mirrors and runs you over while making a right turn, with or without a turn signal, the phrase "but I had the right-of-way!" won't matter so much from the back of an ambulance or in the emergency room. It's always smarter to avoid placing yourself in a dangerous position when you have the option to prevent it.



Cycling is Your Stress Relief - Keep It Fun!

I'd be lying if I said that cycling wasn't stressful at least *sometimes*. Occasionally drivers will harass you because they don't believe bicycles belong on the road, or they accuse you of selfishly thinking you "own" the road that they believe is only for cars without understanding the irony of their accusation. Sometimes drivers are careless in their passes and pass far too close for comfort or safety. Regardless of the situation at hand, it's usually better to leave the situation alone, or in extreme situations let the police handle it instead of handling it yourself.

Furthermore, retaliating (either verbally or physically) or otherwise escalating a situation will not only make you feel worse about the situation after the fact, but will leave a lasting impression on both the driver and any witnesses who see it because you - as the minority on the road - will simply look like a giant jerk. Drivers behind you may not have heard the slurs hurled your way out the driver's passenger window, or may not have seen how the driver swerved at you, but they'll certainly see when you get alongside the car at a red light and start banging your fist on the window while screaming in anger at the driver for what they did to you. Whenever possible, just take it in stride and move on.

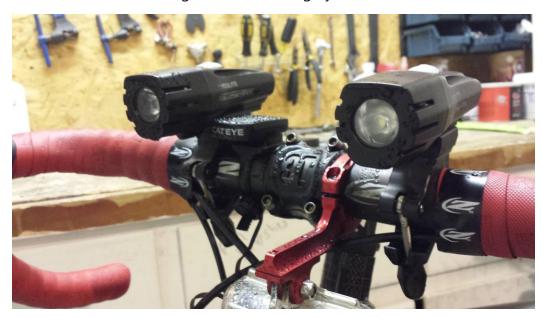
Cycling is supposed to be fun and relaxing, so don't be afraid to change your route or consciously adjust your attitude to keep it fun and as stress-free as possible. Cycling is my mental therapy and it can be yours, too!

Bike Commuting: Rob's Favorite Gear

Over the last few years I've taken advantage of the money I've saved by driving less to try out lots of gear. While some of it was pretty bad and not worth a mention here, a lot of it was great and I still use it to this day. Below are a few of my favorites. (Full disclosure: none of these brands are paying me to promote their products, and I either purchased all of them with my own money or were received as gifts from family members.)

Cygolite Metro Headlights

I've tried a large number of lights over the years, and I've found that lights offered by Cygolite seriously hit the sweet spot of price and features. For my headlights I currently use a Metro 400 and Metro 500 together, with the "Steady Pulse" mode in the dark and the "Daylighting" mode during the day. The lights are plenty bright to light the road ahead using just one (while I prefer to use both together, if I had to pick just one I'd pick the Metro 500), the battery life is great, they're easily recharged at a computer, and the mounts are sturdy and quick to install or move between bikes without the use of tools. They're also about as waterproof as you can get, and have hundreds of miles in absolute downpours without any issues at all. As a bonus, the Metro lights are often sold in a package deal with their Hotshot taillights that I also highly recommend.



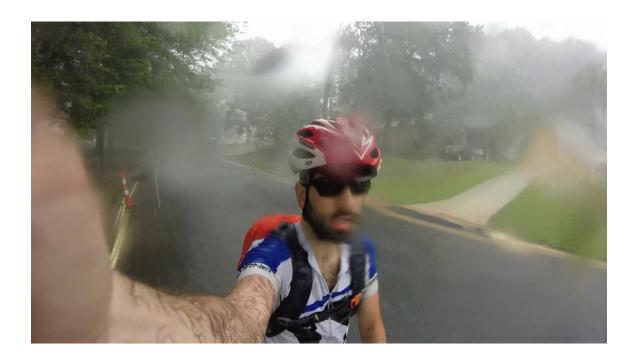
Shimano M520 Pedals

Shimano's M520 pedals (as well as the M530, which are the same pedal with a larger platform) may be the cheapest in their lineup of SPD pedals, but they're also likely the best value. They're made with heavier materials than their higher end offerings, which leaves them a little heavier if weight is a concern of yours, but they're still practically bombproof. I have two sets that have been used on all of my bikes for thousands upon thousands of miles in all weather, whether it's a salty Massachusetts winter or a rainy North Carolina summer, yet despite their beat up and rusty appearance they still work as good as new. I can't imagine spending my money on anything else.



REI Waterproof Pack Cover

I may use pannier bags on my primary bike now, but this REI Waterproof Backpack Cover got me through my first few years of commuting in the rain when I was still using a backpack. The straps of your backpack over your chest will still get wet from the rain, but the waterproof cover will keep the rest of your bag and everything inside bone dry. The covers roll up small to keep in the bottom of your bag when not using it, and as a bonus, these covers come in bright colors that can make you even more visible in dreary conditions where visibility often feels like a luxury.



Sugoi Zap Jacket

Sugoi's Zap jackets check practically every box that a commuter could want in a jacket: it's warm, it's versatile, it's reflective, and it's practically waterproof. The jacket in the daylight looks like a normal red jacket, but at night under lights the entire thing glows white thanks to the clever reflective material that's used on the outside. When the days are warmer, the sleeves can be removed to turn it into a vest to keep your core warm without the rest of you sweating. And while it's not as breathable in the rain as a Gore-Tex jacket I own, it's also about a third of the price! If you can only own one jacket for cold weather commuting, this should be the one.



Gore Bike Wear Windstopper Thermo Lobster Gloves

My hands have poor circulation, and temperatures where most people can get away with lightweight gloves leave my fingers numb instead. Despite your fingers being grouped together in pairs, these gloves are flexible enough where I maintain enough dexterity to easily shift and use my brakes, but warm enough where I've ridden down to the single digits Fahrenheit and can still feel my fingers fine. The cuff of the glove is very long to tuck inside your sleeves to keep your wrists warm, and the sides have a large reflective stripe, which increases the visibility of your hands when performing turn signals in the dark. I've tried many other "winter" gloves and even another big brand's lobster gloves, but these keep my hands much warmer and more comfortable by far.



Crank Brothers M19 Multi Tool

This tool may not be the lightest or the smallest, but it's bailed me out of countless situations that a simpler multi-tool may not have helped. Adjusting the seat height mid-ride on a brand new bike, tightening a crank that came loose on the trails, fixing a snapped chain that would otherwise leave me walking home - all of these issues have been solved on the side of the road or trail with the help of this multi-tool. It sometimes feels like overkill and far more than I'd ever need, but I'd rather be over-prepared than have to make that dreaded call home: "Honey, can you pick me up and bring me home?"



That's a Wrap!

I hope you've found this commuting eBook helpful and will now start your journey using a bicycle for your ride to work or the store. Bicycle commuting is a wonderful joy that not only puts a smile on your face but can also provide a feeling of freedom in a way that a motor vehicle could never provide.

Ride on!

PS

Don't forget to keep checking back to http://www.bicycleuniverse.com where we publish new articles on a weekly basis.