

# Bicycle Commuting



## Making a Simple Thing Sound All Complicated

I was in a bike store about a week ago inquiring about some specific lights. I got to talking with the guy and mentioned I'd be teaching this class. He said:

You know, the trouble is that those of us who commute, when somebody asks about it, we start off with you need to get this and this and that and do this and that and the other thing and they think, man, this sounds complicated and get discouraged. Make sure to tell your class that all they need is a bike and a backpack and they can start commuting.

He is right. In the pages that follow and the presentation I make tonight I'm going to talk about a lot of aspects of cycling as related to commuting. I'm attempting to anticipate questions that people will have about commuting, but at the risk of making it all sound more complex than it really is. All you really need is a bicycle and a backpack, and off you go. As you settle in and decide you want to extend your knowledge, the materials I discuss this evening may come to have more relevance. Don't let my fervor make this seem hard. It's not rocket science.

I'm also not going to try to talk you into bicycle commuting. There are a host of reasons to do it; reduce pollution, carbon emissions, dependence on foreign oil, increased exercise with implications for lessened obesity and the diabetes, heart disease and strokes that result, lessened traffic congestion and wear on infrastructure, the list goes on. As I like to say, the bicycle is a simple answer to a lot of complicated questions. The thing is, virtually none of the commuters I know ride for those reasons. They ride because they like it, they like the exercise that allows them not to watch what they eat too closely, they like getting to work having had some exercise, fresh air and the daily run in past familiar landmarks, scenes and people. Some ride because they like that it's cheaper

The bicycle is a simple answer to a lot of complicated questions.



Riding home in the rain, September 2007

than driving; get rid of a car and your bicycle becomes a huge money saver. Some ride because they appreciate the sheer elegant efficiency of the machine. There are also those who ride out of economic necessity. For a lot of people, it is some *mélange* of these reasons.

Everyone brings their own cycling backgrounds and experiences, everyone's home to work pairing is different, people have different start times and dress codes, different requirements for being out during the day. In attempting to anticipate a lot of this I talk about many many aspects of cycling, but remember, it's just not that hard.

## BICYCLE TYPES

A common first question about bicycle commuting is “What type of bicycle should I get?” The answer depends on your personal preferences and your commute, but to a surprising extent, nearly any bike will do. People commute on everything, from fixed gear, stripped-down track bikes to old English three-speeds to mountain bikes, hybrids, road racing bikes, updated (or not) old ten-speeds, and everything in between. Stand downtown on a nice day and you’ll see every variety of machine go by, some gliding silently, some creaking past. If you already own a bicycle, there’s a good chance you can just set off on it and ride to work. Make sure it fits comfortably, get it tuned up, and just use it. Once you’ve got some time in on it you can consider further options.

Get a bicycle. You will not regret it if you live.  
-Mark Twain

Arriving at an *optimal answer* is a little more nuanced. My own personal bias is that the bicycle should have fenders to keep me drier in the wet and the bike cleaner always, and have a rack on which I can mount panniers so that I don’t have to carry things on my back, which I loathe. For me, the ideal bicycle is a **touring bicycle**, designed to be stable, dependable and comfortable carrying big loads long distances. Unfortunately, hardly anybody builds touring bicycles these days, and getting excited about touring bikes is roughly analogous to getting excited about minivans.

**Mountain bikes** can make a lot of sense. They tend to have clearances for big tires. For fashion reasons, mountain bikes come with knobby tires. I’d recommend replacing these with similar-sized smooth tires because those knobbies slow you down on pavement, squiggle about when leaning into turns and compromise control on surfaces other than loose sand. A pair of big smooth-treaded tires can take a lot of punishment if your commute involves potholes and rugged roads. On the whole, I’d recommend against a suspension mountain bicycle which adds complication for not much benefit in city riding. On my own mountain bike, I also went with swept-back upright handlebars and fenders, and ride it through the winter, when I take back all the nasty things I said about knobbies and use a set with carbide studs, which are a useful accessory when ice occurs.

**Hybrid bikes** work too. In many cases, hybrid bicycles have large padded seats which are more comfortable for the first five miles than the last five, so if you have a longer commute you may wish to try a different saddle. Hybrids tend to be lower-end bicycles with functional but unexciting gear and so should work just fine for commuting. As always, in my opinion, fenders and a rack do a lot to enhance a bike’s utility.

**Road bikes** (bicycle-speak for road racing bikes) are the ones I consider least-suitable based on the small tires to which they are often limited and the lack of fender clearance or attachment points for luggage racks. Having said that, they are wonderfully lightweight and there is some guy who routinely overtakes me on his road bike while I’m riding to work. I’m happier with my stuff in panniers while he has to carry his in a backpack, but he comes from south of me and travels further north so perhaps the increased efficiency makes up for the other shortcomings on the longer ride.

There are now appearing purpose-designed **urban or city bicycles**. The prototypical ones are the Dutch Batavus and Azors. These are big, sturdy machines with relaxed seating angles. I’ve ridden a huge eight-speed Azor with racks sturdy enough to hold people and was smitten, but it was \$1,700 which I’m not quite ready to commit for my fifth bike. Many of the City Bikes have generator lighting, in which either the front hub or a separate bottle generator powers the front and rear lights. They often come equipped with kickstands, racks, locks, lights, bells or a horn, all the accessories that otherwise quickly raise the price of the usual bare bicycle. If you are looking for a City bike, take a look at the Breezers (the Uptown 8 is really nice), the Bianchi Milano, the new Civia line from Quality Bicycle Products, and the custom-made A.N.T. Boston Roadster.

## BICYCLE TYPES

A subset of bicycle racing which is gaining in popularity is cyclocross, a version which includes paved roads, overland grass and muddy trails and frequently requires dismounting to carry bicycles up steps or over fences. **Cyclocross bicycles** are racing-oriented but add clearance for larger tires and often enough for fenders and even (yes, you've got it!) racks. I'd wager to say there are more cyclocross bicycles available these days than touring bicycles, and they should make good urban commuters (full disclosure: I have never owned a cyclocross bicycle, so this is a bit speculative on my part). Another very specific bicycle event whose bikes should be suitable for commuting is **randonneuring**, long-distance cycling events which culminates in the 1,200 km Paris-Brest-Paris run every four years. Think of these as sport-touring bicycles.

**Folding bicycles** are often dismissed as toys but I expect to see them becoming more common if cycle commuting increases in popularity. They have become popular in Britain, where the ability to quickly collapse the bicycle allows it to be carried on to trains and buses and taken into offices to prevent it being stolen. They've become common enough that in early May the BBC had a report on the backlash against folding bicycles on the commuter trains and the London Underground. The classic British folder is the Brompton (see Calhoun Cycles here in town) but Dahon, Strida and Bike Friday all make quick-folding models as well. And despite their daft appearance, they can be ridden serious mileage if required.

How much should your bicycle cost? It doesn't really matter. Some of it depends on how secure your bicycle will be at home and work; if it's parked in a vulnerable place among a population likely to steal it, you might be best off with a functional and ugly heap for \$50. If you are deeply into bicycles, you can get on the waiting list for a custom-built City Bike and drop thousands into an achingly beautiful machine, but you'd better have somewhere safe to keep it. The answer depends greatly on your personal financial situation, your affection for bicycles, your commute, and your parking situation.

Buying Bike Stuff?  
Keep in mind the  
old saying:

Good. Light.  
Cheap.  
Pick Two.

What should the bicycle be made of? I wouldn't worry about it. There is much lore and loudly proclaimed opinion on frame materials. Aluminum is lighter than titanium is lighter than steel. Steel lasts forever and fails gracefully; aluminum is weaker and thus they have to use more of it so the weight difference isn't much, but at least it doesn't rust. Titanium is expensive. Carbon fiber is very light but it's not clear to me how well it will handle long-term UV exposure such as a commuter bicycle gets sitting in a rack all day. I personally ride steel bicycles but it doesn't really matter much.

Do pay attention to fit. The fashion in bicycling these days runs to small frames. At the bottom of the pedal stroke, your leg should be mostly extended. Not locked straight, but just a slight bend in the knee. When you fit like this, you may not be able to put both feet on the ground while perched on your saddle. You should be able to clear the top tube of the bicycle while standing flat-footed; if you don't, the frame is probably a bit big and you risk hurting yourself in the nether regions one day. Know that you can change stems to raise the handlebars and have them closer to or farther from the saddle. In fact, virtually everything about a bicycle can be altered.

Also make sure your bicycle is in decent working order. There are lots of bikes out there with badly underinflated tires, misadjusted brakes and excruciatingly squeaky chains. Don't be one of them. Proper tire inflation makes the bike handle better and ride more comfortably (and leads to fewer flat tires); a properly lubed drivechain is more efficient; effective brakes are important. A properly adjusted and serviced bicycle will be more fun to ride, safer, and more efficient.

## OTHER GEAR

There's Good News and there's Bad News when it comes to bicycling accessories and gear. The Bad News first: unlike almost any other piece of consumer gear, bicycles are sold as only partially functional machines. Nobody would buy a car without headlights, with no trunk, the wrong tires, no door locks and certainly not without a cupholder, yet bicycles are routinely sold without the things that make them truly useful vehicles. The bad news is, buying this stuff can really add a lot to the price of the bicycle. And as with nearly everything cycling-related, you have the options of cheap and mostly functional up to expensive and extremely functional. Here are some of the common items that can add to your cycling enjoyment:

- Fenders** I like fenders because they keep everything cleaner. I first used them bicycle touring in 1980 and have had them on my bicycles ever since. The most obvious task is to keep you dry(er) in the rain. You might find your feet get wet from the outward splashing by the front wheel, but at least it won't be throwing water up in your face, all over your bike and up your back in the attractive skunk stripe pattern. Fenders also keep you clean when things are dry; when I ride a bare bike, I notice the gravel pinging off the downtube. Fenders are back in fashion in some circles, and you can make do with very serviceable plastic ones for about \$40 or get really fancy hammered aluminum (Honjo) or stainless steel (Berthoud) ones for \$100 or more a set. Note that many modern road bikes do not have sufficient clearance under the fork or brake bridge for fenders to fit, one reason I see them as less suitable for commuting than other bicycle types.
- Rack** Backpacks and Messenger Bags are excellent alternatives for some people, but I like to carry my gear on the bike. I do this primarily on my rear rack. These will run you from around \$40 for a low-end aluminum one up to around \$200 for a Tubus stainless-steel unit. You can also get handmade custom racks for as much as you're willing to spend. If you're going to carry a big load back there, pay attention to how sturdy the rack is. The Dutch City bikes come with racks that passengers can actually sit on, but you pay a price in weight. A rack with some triangulation to it will help keep your load from swaying back and forth. You'd be surprised how much heavy a couple of panniers of groceries can be.
- Kickstand** The world is coming around to my view on fenders but I remain an outcast on kickstands. I love 'em. I particularly like the two-legged SKS/Pletscher but the bad news is they cost \$50. I got my first one to hold my bicycle upright while attaching an Adams Trail-a-Bike; it was much easier to attaché than if the bike was leaning. Now all my bicycles have them and they are great for parking in a hurry almost anywhere. Most people, even with really nice bicycles, are forever propping their bikes up against things or lying them on the ground. A kickstand is a more elegant solution, and if \$50 seems a bit much, a single-legged one will cost you maybe \$10.
- Cage** Most modern bicycles have attachment points for one or two water bottle cages (touring bikes often have a third one under the downtube). Go ahead and get cages for these. You can carry water bottles, a rolled up raincoat, a Coke, a coffee (the latter two work better on the more nearly vertical seat tube mount), Soma's little water-bottle shaped dry container, all kinds of things. Most cages are aluminum. These will mark up your water bottles with black marks over time. I prefer stainless steel cages, and use Blackburn's which run about \$15 apiece.

## OTHER GEAR

- Bottles** It's good to have along some hydration. In recent years there has been some concern about bottles leaching harmful compounds into the water. This is potentially more acute in bicycle water bottles which often are full of warm sloshing water in sunshine. If this is a concern, Soma Fabrications makes the 22 oz. Crystal Bottle of FDA approved food grade polypropylene. You can also go all-metal, with the Kleen Kanteen bottle (get the 27 oz) of stainless steel or Sigg's aluminum sports bottles. The main issue with these metal bottles is that they rattle in the cages; you can get plastic or carbon cages to minimize this. Finally, I have found a thermal stainless vacuum bottle to be an excellent accessory. Not only does it keep coffee piping hot for a long time (more than an hour), it keeps ice water icy cold all day in blazing sunshine and makes a dandy container for 1.5 gin and tonics on the rocks for later consumption.
- Tools** One day you will get a flat tire. You should be able to repair it. At a minimum, you'll need tire levers, a patch kit (and/or spare tube), the ability to get your wheel off the frame and the ability to re-inflate you tire, twice. I carry three levers because I have some tires that are a really tight fit on the rim. The Soma Steelcore levers are very strong if a tad heavy (I have broken lesser plastic levers before, and steel ones can mark up your rims). I carry a small set of Allen wrenches; I've tried a couple of really alluring little folding bicycle multi-tools but have repeatedly found that they turn out to be useless to reach fasteners I'm trying to get at. See if you can tighten your stem or adjust your seat with your multi-tool. The answer to how much you need to carry tool-wise depends on where you're going; a lot of time a broken spoke or loose pedal can be safely ignored until you get home, but if you're traveling across the country you had better be able to replace cables, fix chains, remove your bottom bracket, etc. For the most part, well-maintained modern bicycles are pretty dependable and the only failure you are likely to encounter will be flat tires.
- Helmet** There is a surprisingly vigorous helmet debate going on. Most cyclists in the U.S. wear them, most in Europe don't. I generally wear a helmet when I ride; I've never been saved by a bicycle helmet but a motorcycle helmet did me a big favor once. I am fond of the Bell Metro (now the Metropolis) which has a fitted rain cover, a superb mirror and even cold weather inserts to plug the holes and cover your ears. I'd recommend wearing a helmet when you ride.
- Mirror** My mirror attaches to my helmet and is astoundingly useful. I get a wide view behind me with just a quick glance. There are various mirrors which attach to your glasses or helmet and I'd highly recommend getting one. This saves you having to look over your shoulder all the time to see what's back there. I still look over my shoulder to make sure plus it serves as something of a signal to drivers that you're thinking about doing something, like changing lanes.
- Computer** Not strictly necessary, but fun to have to see how far you've gone and how fast you're moving. Most have clocks in them, some deal with two wheel sizes so you can move them from bicycle to bicycle. A few have thermometers or even altimeters in them to further demoralize you.

## SOME BLATHER ABOUT GEARING

A cyclist contemplating a bicycle purchase has a bewildering variety of bicycles to choose from sporting any number of gears from one to thirty. How to evaluate a three speed versus an eight speed versus a twenty-one, twenty-seven or thirty speed? More is better, right?

Actually, it makes less difference than you might think. To help you think coherently about gearing, this quickly steps through how gear ratios are calculated and the ranges and gearings different bicycles offer.

Fundamentally, gearing is all about ratios. The crankset (the thing the pedals are attached to) rotates once and the rear wheel rotates more than once. How many times the rear wheel goes around determines how hard the bicycle is to pedal—the more times it rotates, the farther you go per crank rotation and the harder it is to pedal. On derailleur-equipped bicycles, this ratio is set by the chainring (in front) and cog (in back). For example, if your bicycle has a 42 tooth chainring and the rear cog is a 21 tooth cog, for a single rotation of the crankset, the cog will rotate twice ( $42/21=2$ ). If you shift the rear derailleur so that the rear cog is now a 14-tooth cog, a single rotation of the crankset will rotate the rear wheel three times ( $42/14=3$ ). Shift up to a 28-tooth cog in back, and a single crank rotation will rotate the rear wheel 1.5 times ( $42/28=1.5$ ). When the rear wheel rotates more times, you obviously go farther, but it's harder to pedal. When it doesn't rotate as much, it's easier to pedal, but you don't go as far.

Summarizing so far:

More teeth in front (larger chainring) gives a higher gear

More teeth in back (larger cog) gives a lower gear.

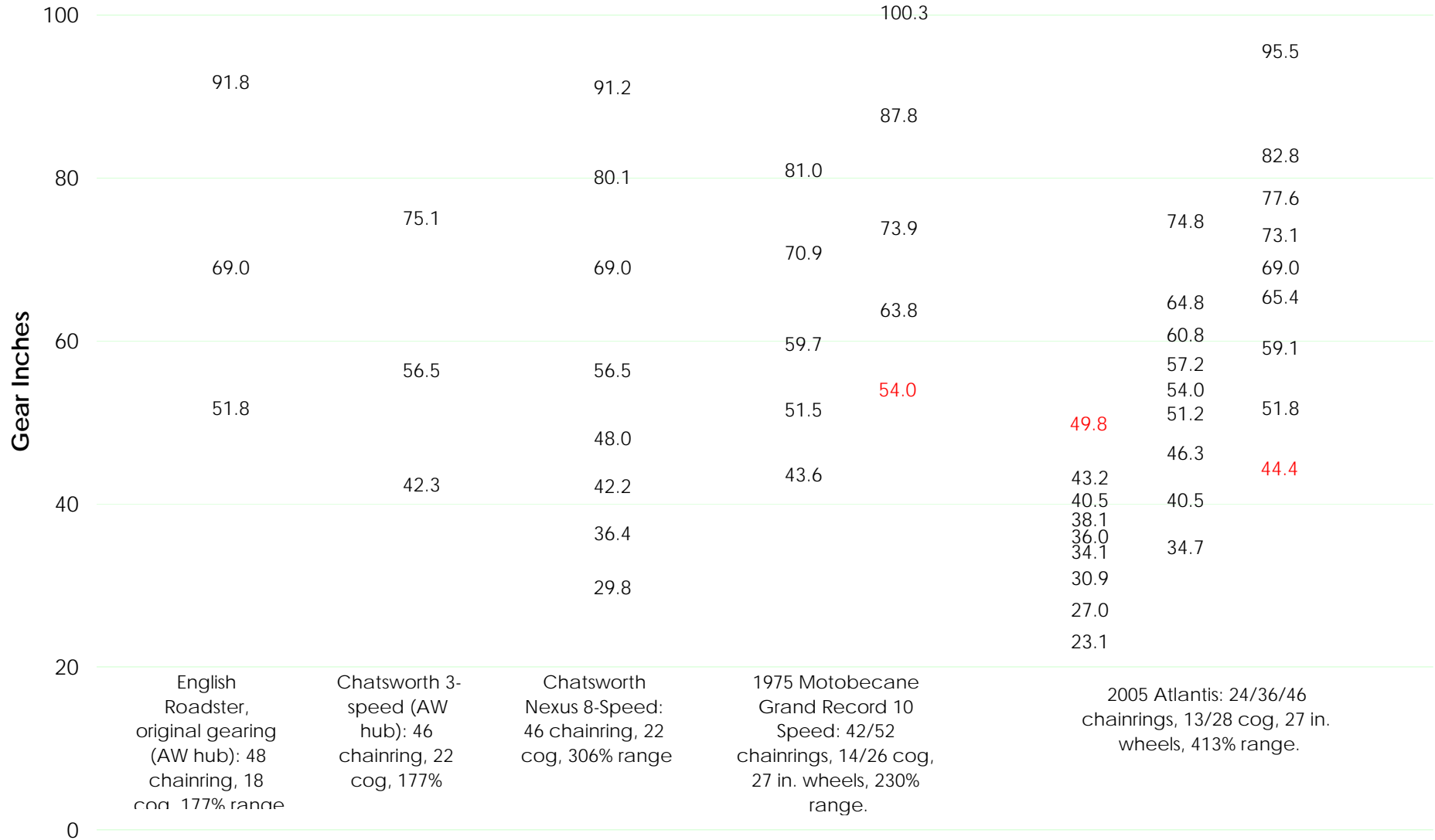
Derailleur bicycles typically have 2 or 3 chainrings in front and between 5 and 10 cogs in back. Multiply the number of chainrings by the number of cogs and you get the number of gears; the classic 10-speed was 2 chainrings and 5 cogs; modern derailleur bikes are usually 3 chainrings and 8, 9 or even 10 cogs, giving 24, 27 or 30 speeds; road bikes, a synonym for racing bikes, often have just 2 chainrings for chest-thumping macho reasons but 10 cogs, for 20 speeds.

So more is better, right? Well, not necessarily. What isn't often well-understood is just how much duplication and overlap there is in derailleur drivetrains. The graph on the opposite page shows this; the Atlantis bike cited has a 27-speed drivetrain and an overall range of 427% top to bottom, but you can see how many of the gears are either duplicated exactly from chainring to another or have close duplicates. Even the 1970s ten-speed has quite a lot of overlap. Going from 10 to 15 to 21/24/27/30 doesn't always gain you much, so don't get too dazzled by large numbers of gears.

An alternative is an internally-geared hub. The graph shows the gearing for a classic English 3-speed hub and a modern Shimano Nexus 8-speed. The Nexus is notable because it has a wider gear range than the 1970s ten-speed and approaches the reach of the modern 27-speed and does so with no overlap. It's a straight progression through the gears, you can shift while stopped, and the single chainring setup allows you to have a chainguard to keep your trousers clean. At first blush, it can seem silly to pay for just 8 speeds when for the same or maybe even less, you can get 24 speeds, but these internally-geared hubs are a very viable option and should not be dismissed out of hand.

I have written a tedious and lengthy article about gearing (which is also affected by wheel size) but haven't posted it yet. It will show up one day and be accessible from my Bicycle Articles page at <http://www.uscoles.com/bikeindex.shtml>.

### Comparative Gear Ratios for Selected Bicycles



Gears in red are rarely used due to chainline considerations.

## FLAT TIRES

Bicycles are dependable machines. People pay enormous sums for high-end bikes, but even relatively inexpensive machines work remarkably well with little attention. The one failure you are likely to encounter and should be able to handle is a flat tire. You'll want to read more detailed descriptions and maybe have a demo, but these are the steps:

- 1) Remove the wheel from the bike. You'll probably need to release your brakes to get the wheel out. With quick release skewers, removing the wheel is easy, otherwise, you'll need tools.
- 2) Check the tire to see if there's anything sticking out of it. I've had pieces of glass visible in the tread. It doesn't keep me from having to fix the flat, but does tell me where the hole is.
- 3) Use your tire levers to remove the tire from the rim. You may have to let some remaining air out of the tube, but usually when I get a flat, all the air is already gone.
- 4) Pull most of the tube out of the tire, but leave the valve stem in unless the hole is right near it.
- 5) Check the inside of the tire for the cause of the flat. Running a finger around the inside is one way to do this, but you may need a Band-Aid if the cause is, for instance, a sharp piece of wire sticking through the tire. If you find something, remove it unless you enjoy these flats.
- 6) Use your pump to put some air in the tube, just a few pumps, then look for the leak. You should be able to hear it. If you have a nasty blowout, it may not be repairable and you'll need a spare tube. If you can't find it, wet or immerse the tube and see if it blows bubbles. If you have two holes close together it's probably a pinch flat where the tube got pinched against the rim.
- 7) Once you find the hole, rough up the tube with some sandpaper for about an inch around the hole. There is some coating on the tube that will keep the patch from adhering very well; you sand it to remove this stuff.
- 8) Put some glue around the hole. Spread it around to cover an area bigger than the patch.
- 9) Let the glue dry for a few minutes until it doesn't feel very tacky any longer. Oddly, if you try and apply the patch with the glue still wet, it won't stick very well.
- 10) Peel the foil backing off the patch and apply the patch to the glued area. Press down really hard. There is probably some clear plastic stuff on the patch—that can stay.
- 11) Stuff the tube back into the tire on the rim. I find it helps to have a bit of air in it for shape.
- 12) Put the tire back on the rim. As much as possible, do this with your hands. Really tight tires may need the tire levers to reinstall them. Be cautious with this, it's very easy to pinch the tube on reinstallation. Don't ask how I know this.
- 13) Pump the tire back up to your desired pressure. See if it feels like it's holding air.
- 14) If so, reinstall your wheel. Don't forget to hook your brakes back up!

Variations on this would include just replacing the tube with a spare. This works great as long as you only have one flat. You can use CO2 inflators to put air back in the tire, but you only get one shot at it so you had better hope your patch holds and you didn't pinch the tube going back on. A second CO2 cartridge or small pump makes a good backup if misfortune overtakes you. That's why you need to be able to inflate your tire, twice. Sometimes the carcass of the tire has a hole in it. You can shore this up with a folded up dollar bill as a temporary repair. Finally, it's not a bad idea to carry a hand wipe to clean up with.



## CARRYING STUFF

You have to be able to carry stuff for the bicycle to be a really useful machine. Most new bicycles are woefully under-equipped to carry anything and you're going to need to add accessories. You'll also have to decide if you want to carry things on your body or on the bicycle. I personally prefer the bicycle, but plenty of people like backpack or messenger bag options.

- Panniers** Panniers are bags that hang on either side of your rack (on front or back, or, if you're feeling strong, both). Bicycle racks are made of tubular or rod metal and panniers have hooks that hook onto these. In most cases, there are two hooks on top and then some sort of retention below so the bags don't swing out from the bike. Panniers come in lots of sizes and feature sets; I am personally fond of Ortliebs which have an excellent system of clamping to the rack so they don't ever fall off (this is uncommonly annoying, since you're usually going fast over bumps) but which don't have much in the way of fancy compartmentalization, plus they cost a lot. The Dutch Basil bags are now available in the U.S. and seem to work well. Carradice, REI and Arkel all make panniers with some sort of rack lock and Trek and Jandd, among others, make panniers without locks. The nice thing about panniers is that the weight is off your body and down low. Don't be afraid to run one pannier or a mismatched set—I have often carried a gallon of milk or a case of beer in a single pannier, and they are close enough to the bicycle's centerline not to pull you over.
- "I'm lazy. But it's the lazy people who invented the wheel and the bicycle because they didn't like walking or carrying things."  
-Lech Walesa
- Backpacks** Very common, and more comfortable to carry off the bicycle than panniers. The main issue with backpacks is that you are carrying the weight up high and it's against your back, which can get sweaty. On the other hand, many packs offer some sort of bladder insert for large drink containers for the long-distance or always-thirsty rider.
- Messenger Bags** Originally used by bicycle messengers, these can be swung around to the front to enable easy access to the radio, cell phone and customer packages, then swung back out of the way to ride without having to remove the bag like a backpack. These have become fashion items in certain circles and are seen a lot. I have not used these much so can't offer much opinion on them, but observe that I'd much rather carry two bags of groceries in a pair of panniers than in an enormous messenger bag.
- Baskets** Underrated, especially if matched with a gym or tote bag. Make sure you have bungee cords to keep your load in. These can be front, handlebar-mounted baskets or larger, rack-mounted ones. Basil makes some specifically designed for smaller pets.
- Xtracycle** If you seriously want to move big loads, the Xtracycle Free Radical is an extension to a normal bicycle which gives huge carrying capacity (four grocery bags, for instance, or a ladder). It's not something you pop on and off, and it makes your wheelbase longer, but it greatly enhances the load-carrying capacity of your bicycle if that's important to you. These run about \$400 and need a bike to attach to, or there are now a few longtails coming out built this way from scratch (try the Surly Big Dummy).
- Handlebar Bag** Excellent for longer rides, think of it as a purse. It's great for sunglasses, camera, cellphone, sunscreen, your wallet, maps, etc. I use it more for leisure rides than everyday riding, but it may suit your purposes for light loads. Don't get one too large, you'll inevitably fill it and may not like the effects on steering.

## KEEPING YOUR BICYCLE

There are a lot of different attitudes towards bicycle theft. Some people advocate always riding a crappy bike so that when it is stolen, you won't care. Others say, take a nice bike and make it look crappy, so it won't get stolen. To me, having built up my bicycles from bare frames, having them stolen would be far worse than having my car stolen. So how to hang onto your bicycle?

The answer depends a lot on your circumstances. How secure is your bicycle at home? Can you park inside at work? Do you have a proper bike rack? Are there people around likely to steal your bike and parts? Your approach will be affected by these considerations.

You need to understand that any lock can be defeated, given some time and the right tools. The Kryponite Evolution Mini U-lock I use can be cut with sufficiently large bolt cutters, and I have personally seen it done; virtually anything can be gotten off with an angle grinder, hacksaw and time. Your job is to make your bicycle harder to steal than the one next to it, or the effort obvious enough to make the thief uncomfortable.

Be careful how you lock up and what you lock to. In the classic toaster rack, you may only be able to get your front wheel in and lock it. If you have a quick release on the wheel, the rest of your bike is simple to steal. Don't lock to something where the bicycle can simply just be lifted over it. Don't lock to things that are easily cut, like small trees. Lock your frame, or your rear wheel inside the rear triangle, to something solid that can't be easily cut by a thief. If your front wheel has a quick release and you want to keep it, you will want to secure it as well. Some people just lock the front wheel and downtube to a rack, figuring the rear wheel is too big a pain to get off.



Here in New York, we've learned not to grow attached to our bikes in the way that gazelles of the African savannah know not to get too attached to their young.

-BSNYC 2/2008

Lock size is tough decision. I carry a compact U-Lock and there are times I can't lock up to, say, a lightpole. Long shackle locks handle that better, but thieves defeat these locks is by using leverage (car jacks, for instance) inside the shackle. The long ones just give them more room to work.

In general, the U Locks are more secure than cables. It is remarkably easy to cut through thin cables, so don't regard those as stopping any but the casual thief. If your home or work is in an area prone to bicycle thievery, you may need two locks, a U-lock and a cable, in the hope that your local thief doesn't have tools for both along.

A couple of lock strategies: If you get bored carrying your U-Lock back and forth and always park your bike in the same rack, just leave the lock locked to the bike rack. Building management will hate you for this, but it saves you hauling that darn thing around.

Got multiple bikes? I bought my first Evolution Mini, then ordered three more directly from the company all using the same keys as the first. Now the four of us can grab any of the locks and any of the bike keys and they will work fine. It took about 8-10 weeks to get the new locks.

Finally, take some photos of your bike and record the serial number. If it gets stolen, report it. Who knows, it might show up. Also watch craigslist to see if your bicycle appears for sale. There have been instances where bicycle owners working with the police have set up a buy and arrested the seller. Not surprisingly, the sellers often have a whole inventory of purloined bikes.

## GETTING THERE IS HALF THE FUN

An undervalued skill in Practical Cycling is route selection. It is easy for new bicycle commuters to hop on the bicycle and just ride to work the same way they drive. For some people, this works great (I ride and drive basically the same route); for others, it leads to high-stress riding, fear and discouragement. You wonder, could there be a better way?

As cyclists, we have the widest selection of route options of any road user. We are allowed to operate on all public roads except the Interstates and those posted otherwise, but also get to use bicycle trails, pedestrian bridges, the Intercampus Transitway and even snippets of sidewalks.

The major problem with getting places by bicycle is getting over the major obstacles, particularly highways, railways and rivers. These have a limited number of crossings and can lead you to attempt some pretty gruesome routes, like riding Snelling Avenue. There are other options you may never have noticed. If you drive down I-94 from downtown Saint Paul to the Mississippi River you'll go under four pedestrian-only bridges and a couple of road bridges without freeway access (Victoria, for instance). If you follow Hamline north from University, it looks like a dead-end, but actually there is a handy pedestrian and bicycle bridge over the railroad tracks.

An extremely useful reference in local route selection is the Twin Cities Bike Map put out by Little Transport Press (about \$12 in local bike shops for the brand new 2008 edition, and they publish maps for Milwaukee and Madison as well). It marks roads favorable for cycling and shows things like these highway crossings. Local knowledge might lead you to other shortcuts; I know of at least one informal railway crossing widely used by pedestrians and cyclists. These kinds of things aren't always obvious in a car.

In many cases, you will do well to travel one street over from the major thoroughfare; when I drive to downtown Minneapolis, I take Larpenteur. When I ride, I take Como Avenue, a couple of blocks south, or Roselawn, a few blocks north. I prefer riding quiet Summit Avenue to going down Grand. I take Minnehaha to Prior and go south under I-94 rather than use manic Snelling. The State Fairgrounds are almost always open to bicycles (they're closed at State Fair time and a few select weekends); the Intercampus Transitway gets you from the U of M Saint Paul campus to the new stadium site with virtually no traffic. In Minneapolis, the Midtown Greenway parallels Lake Street, has a bridge over Highway 55, and is completely car-free. This is a bit unusual for a bike path; many are heavy with recreational users, some with dogs on leashes or iPods in ears, and that you may be better off on the street than slaloming your way through the slow-moving obstacles.

It is often true that you can travel through neighborhoods at a decent speed. A stairstep across south Minneapolis that would be aggravating in a car is a fun exploration at bicycle speed. I frequently cross at the Lake/Marshall bridge, one of the choke points, but then turn left almost immediately down 46<sup>th</sup> Avenue and work my way across town that way (42<sup>nd</sup> St goes all the way across town). There are limited LRT crossings, but they are all traffic controlled and not intimidating.

Everyone's route profile is different, so it is difficult to generalize, but when looking for your bicycle route, consider carefully your selection of crossings of obstacles, watch for pedestrian/bicycle facilities, think about riding through parks, look at bike trails and consider quieter parallel streets. There are going to be destinations that aren't reachable by any quiet route (Rosedale Mall is one, you can't approach it without dealing with oodles of traffic or riding on a sidewalk, the airport's another), but there are many alternative paths to places you should think about that can make your ride more comfortable and even enjoyable compared to your auto route.

## RIDING IN TRAFFIC

Having just written about Route Selection and how one aspect of that is avoiding busy streets, it is inevitable that any Practical Cyclist is going to ride with motor vehicles, sometimes on quite busy roads. This is a Big Topic, and can border on the philosophical, but we'll start with the basics.

There are Three Main Things that will make you safer when you ride. If you learn nothing else from this pamphlet, remember these things:

Ride with traffic, not against it

Obey traffic control devices with roughly the same fidelity as motor vehicles

Use lights and reflectors at night

Over and over again, I read stories of cyclists injured and killed. In some tragic instances, the cyclist is completely innocent and the motorists' inattention or intent is clearly at fault. In far too many cases, the cyclist was riding against traffic, blew a stop sign, or was mown down at night while showing no lights, or maybe a combination of these things. Just doing these three things will greatly improve your safety, and they also happen to be Minnesota law.

In general, you should ride your bicycle as if it were a vehicle. In fact, it is a vehicle, and along with that come certain rights and responsibilities. However, you are small, weak and hard to see in the midst of a lot of road users who are large, fast and oblivious. For the most part, motorists will be aware of you and treat you with respect similar to that they show other motorists. However, you cannot demand respect, you can only expect it, be aware when it's not being offered, and take precautions that minimize your exposure.

### Riding With Traffic

You are going to be safer riding with traffic than against it. A big fear of cyclists new to riding in the road is getting hit from behind. It does happen, but it's not as common as you might think. Riding with traffic puts you in the expected direction of travel and makes it more likely that motorists will see you. Most drivers, when they stop at a Stop sign or red light, looking to turn right, will only scan left to make sure nobody is coming, then turn with only a cursory look to make sure a pedestrian isn't in the way (some of the time, motorists kill over 8,000 pedestrians a year in the U.S.). A bicycle coming the wrong way at 15+ mph doesn't enter the equation, and is prone to being pulled out in front of or into. The same goes for sidewalks; nobody expects a fast-moving vehicle to come down the sidewalk from either direction. Avoid sidewalks; they're bad enough at intersections but also pick up every driveway crossing, dog-walker, tree root heave and kid with training wheels as well.

What if you do get hit? Well, as you fly through the air, consider that at least your impact speed was lowered. If you are going into traffic at 15 and get hit by a car doing 35, you have a 50mph impact and might be about to go through the windshield. If you're going 15 and get hit from behind at 35, it's a 20mph impact and you're at least going away from the guy that hit you. Neither one is going to be much fun, but 20mph is going to be more survivable.

### Lane Choice

In general, you should take the rightmost lane that goes where you are heading. More specifically, this means that in a left turn, you should be in the left turn lane; if there are two left turn lanes, take the rightmost one, so that you end up in the right lane in the new direction. If there is a right turn lane, stay to the right side of the straight-through lane. This lets right-turners get by you. If you are in the right turn lane, you are asking for a Right Hook crash. This applies at freeway entrances, too;

## RIDING IN TRAFFIC

I cross a couple on my commute and stay in the straight-through lane, letting those desiring to get on Highway 36 pass to my right and get on.

In general, you should stay to the right hand side of the road and let traffic pass. However, your safety is paramount and you are allowed to take the whole lane if conditions merit. This is particularly the case if the lane is too narrow to allow motor vehicles to get past without endangering you (often the case in construction zones). Now comes a bit of balancing act; traffic may stack up behind you and get infuriated going 12mph. It's not illegal, but it's inconsiderate if it goes on a long time. If you find yourself leading a long convoy, pull over and let them by.

### Left Turn Notes

Left turns offer many opportunities for bad things to happen. Pull too far forward in the lane and you might get clipped by some idiot turning left coming from your right who cuts the corner too close because he didn't see you. This is a routine insurance claim with cars where I work; it will be disastrous if they hit you on your bicycle.

Other people turning left may not see you coming straight through. They're in a hurry to get into the mall, they're looking for car-sized objects, and a slender bicycle coming through at 18mph doesn't register so they turn right into or right in front of you. Watch for these people and be wary.

You have a right to be on the road, you have a right to take the lane, you can pound the table and insist on these rights all you like, but sometimes discretion is the better part of valor. I virtually always use the left turn lane to turn left, but this can require changing multiple lanes of traffic. If it's really busy, I might chicken out, ride across the intersection, stop, and cross the other way as a pedestrian once the light changes. Remember, you have more options than other people.

Sometimes your usual route is plagued by the periodic outbreaks of Drive Stupid Day. If traffic seems unduly impatient or aggravated or heavy or the vibe feels bad, move over a couple of streets and take a calmer ride home. Remember, those other vehicles are just motorists, they can collectively get angry and impatient and you cannot force yourself on them. You have more options than other people.

How do you distill years of riding in traffic into a couple of pages? You don't. I'd recommend reading Robert Hurst's "The Art of Cycling", a book which picks a good line between those who say you should always, without exception, ride like you're a motor vehicle and those who take more nuanced and radical approaches to riding. Remember, you have more options than other people. Compared to those motor vehicles, you are slow and small and weak so you need to be smart and aware to overcome these disadvantages. This is actually pretty refreshing and you may find yourself becoming a better driver as a result. I also recommend taking a class; the League of American Bicyclists does a Road 1 class that covers a lot of this in eight hours. I may run one of these later in the summer.

Be predicable. Be lawful. Expect others to treat you as a vehicle, but don't depend on it. The mistakes of others can be very painful to you, so be vigilant and aware and prepared. Watch for the body language of other vehicles, as they often give a hint to what they are about to do. Be careful out there, be aware, but don't be afraid.

Sites worth reading:

John Allens "Bicycling Street Smarts" at <http://www.bikexpert.com/streetsmarts/usa/index.htm>

Michael Bluejay's "How Not to Get Hit by Cars" at <http://www.bicyclesafe.com>

## IT WAS A DARK AND STORMY NIGHT

All cyclists love riding on sunny Sunday afternoons in May with a stop for an ice cream and a snooze in the grass. Practical Cyclists are likely to find themselves riding at night or in rain or fog or snow or cold or all of the above. What to do about that? We'll take these one at a time.

**Nighttime** Riding in the dark is the first one of these you are likely to run into. Even in the summer months in the Twin Cities, when the sunset sneaks briefly past 9 PM, it isn't hard to find oneself out after dark. Earlier in the spring, or in the deepening autumn, you become acutely aware of the shortening days until at its nadir in December you might spend all your daylight hours in the office and do all your riding at night.

You need to be visible at night. You'd be amazed at how invisible cyclists are. You may be particularly surprised if you are 24 and have good vision to find out what a 50 or 60 or 70 year old sees at night. You need to help these folks and protect yourself.

**Lights** Lights are undergoing rapid evolution as increasingly powerful and efficient light emitting diodes (LEDs) take over from the traditional halogen and high intensity discharge lights. You should have at a minimum a taillight so people behind you can see you; the current hot light is the Planet Bike Superflash blinkie. You should also have a headlight that lets you be seen and also illuminates the road ahead of you. How bright this needs to be depends to some extent on your frequency of riding at night and your eyesight; in the winter I use a 15 watt halogen that does a great job, but it has a separate battery and light head and is a bit fiddly taking on and off. I'd recommend a handlebar-mounted, integrated battery light that pops quickly off its quick release to take with you. I am looking forward to trying the Planet Bike Blaze 1 or 2 watt lights which are to be released soon (at about \$50 and \$75). The cheapest front-and-rear light sets get down as low as \$25; you can spend over \$1,000 (see the Busch + Muller Big Bang or Lupine Betty, both German units). Check your bike store for options, although it can be difficult to evaluate a light in the bright daylight store interior.

It is possible to use a generator hub to run your lights. These setups cost more but require no batteries; your forward motion generates the electricity to power the lights. The standard generator hubs from Shimano and Schmidt (the high-end German hub) put out 6 volts at 3 watts. This makes for just an adequate halogen headlight; it ought to be wonderful with the right LED light, and these will be available soon.

**Reflectors** Reflectors are often dismissed as inadequate, but I personally notice pedal reflectors, particularly when I'm driving. The motion must help. If you can mount them, pedal reflectors are cheap and effective. My summer bicycles have reflective sidewalls on the tires. These seem to be good for a couple of years before road grime dulls them too much. A 3M reflective paint technology scientist I know puts bits of reflective tape on the inside of his rim (not on the braking surface!!!). I haven't actually seen this work (I saw it in daylight), but I imagine it must give a disco effect. Some bike luggage has 3M Scotchlite patches on it for reflectance.

**Rain** The next most common adverse condition for the Practical Cyclist is rain. One of my cycling chums has the rule, if it isn't actually raining when it comes time to leave for work, ride. This sometimes leaves you at work as the rain sets in. In the summertime, it is possible for whole storm systems to move through and you ride home in dry weather on damp streets. Other times you ride in the rain.

## IT WAS A DARK AND STORMY NIGHT

A good rainsuit helps. I wear a Burley rainjacket that's no longer made; the hot expensive jacket now is the Showers Pass Elite (around \$225); the cheap but well-thought-of alternative is the O2 Rainwear rain suit at around \$40. There is a whole range of stuff in between. In the jacket, look for a long tail, armpit zips and good ventilation (otherwise you'll get soaked from sweat rather than rain). I've never done rain pants or booties, but people do. I do use Rainlegs, odd-looking chaps to protect the top of your thigh, which is prone to getting very wet, while leaving the rest of your trousers exposed. If you can stand the ridicule, they work nicely in helping keep your thighs warm in winter too.

Finally, there are raincape options. Carradice makes a classic smelly waxed cotton version, Campmor carries a nylon one. You hook your thumbs through a couple of loops, hold these out at the handlebars, and you're all covered up with great ventilation underneath. It's a bit weird since you can't see the bike any more and is worthless without fenders, but they're widely used where people ride a lot.

Rain can be a real test of your luggage. You will soon learn the difference between water resistant and waterproof. If you are carrying around your laptop, cellphone or digital camera, you'll want waterproof.

### Winter

Winter cycling is the most intimidating to the new Practical Cyclist. The issues we deal with here are cold, snow, ice and road salt. You don't want to ride your nice bike through the salty mush of a Twin Cities winter. I use a mountain bike for this. I like studded tires (mine are Nokian Mount and Ground 160s) which help preserve traction when you find bits of ice. I have fenders on, of course, to keep the slop down, and rinse the bike off from time to time because it can get very grimy.

What may be a surprise to the new rider is how easy it is to keep warm. The classic rookie error is going out in K2 survival gear only to find oneself sweating like mad a mile later. You'll be working plenty hard, generating lots of heat, and I typically wear a wool t-shirt, wool long underwear and my rainjacket on top, wool long undies and a pair of wool pants on my legs (with the aforementioned Rainlegs if it seemed really cold). Two pairs of socks in some clunky walking shoes kept my toes warm for an hour or more; a pair of light gloves in warmer weather, a pair of shearling mittens in cold weather always kept my hands warm. I'd wear a wool balaclava under my helmet and occasionally a pair of goggles if it was windy or really cold.



As long as you're riding, you're fine. This mode of dress would be wildly inadequate to sit at a Packers game in December, but when you're riding with slop on the roads and knobby tires, you'll be working hard and will crank out plenty of warmth.

The one situation I haven't faced in winter is a flat tire. I carry a spare tube and a CO2 cartridge to make for as quick a change as possible, but if I encountered a flat and it was very cold, I'd be tempted to knock on a door and asked to allowed to change it in a garage, basement or convenience store before chills set in.

## INTERMODAL TRANSPORT

One of the great things about bicycles is that they can match up very handily with other modes of transportation. At one time or another, I've taken my bicycle places by car, bus, light rail, British Rail, Amtrak, and even Northwest Airlines. Here are a few notes on each of these.

- Car** My wife is a church music director in south Minneapolis. I sing in her choir. On Wednesdays she's there early to prepare for rehearsal. On Sundays, she has to play two services, but the choir only sings at the early one. Rather than drive two motor vehicles, I routinely ride one way and carry the bike on the car the other. On Wednesday evenings, I'll ride to church for the 7:00 rehearsal, then bring it home on the car; on Sundays, we'll all go in the car and I'll ride home rather than wait around. The bike rack we use is a Yakima Super Joe 3-bike model and I can literally have it out of the trunk, mounted, and the bike on in two minutes. There are times we need to carry all four bicycles, and then we revert to a roof rack with mounts that use downtube clamps and don't require taking any wheels off. This is slower to mount and makes for a lot of air resistance but is really the only choice for four bikes.
- Bus** All the MTA buses in the Twin Cities now have two-bike racks mounted on front. The good news is, you can hop on a bus and take your bike along, letting the driver cover the big miles or maybe take you most of the way home from an overly ambitious ride. The bad news? It only holds two bikes and they're getting more and more use. Also, if you have, for instance, 2 kids out on a ride and one gets tired, what do you do? Send them off alone on the bus? Take one and leave one behind? Finally, it can be a bit nerve-wracking to use these the first time in front of a busload of passengers. Try it on a quiet day first, or look at the Metro Transit website.
- Light Rail** Each LRT car has some hooks (two pairs, I think) you can use for your bicycle. You hook the front wheel to them and they hang there. No additional charge! I have really liked this the few times I've used it, but it's always been during off-hours. I'm not sure how it goes on weekday rush hours.
- Amtrak** The bad news is that you have to box your bike and can only take it between baggage stops. This means you can't check your bike to Red Wing, for instance, but you can to Winona or LaCrosse. Amtrak sells nice big bike boxes for \$10 and charges \$5 to take the bike. You'll have to rotate your handlebars, remove your pedals and probably drop your seatpost down, but the bicycle does make a great way to get around some places once you're there.
- Airlines** In 1980, Northwest took my bicycle to London for no charge. Now it would be \$100 each way domestically, \$150 each way internationally. If you plan to do this often, you can get frames made with (or refitted with) special couplers that allow you to break the bicycle down small enough to fit in a piece of legal luggage (see [sandsmachine.com](http://sandsmachine.com) for details and pictures).
- Other** I've had friends take the S.S. Badger across Lake Michigan with their bicycles; they'll charge you \$5 a bicycle this season. In Dubuque, Iowa, the Fenelon Place Elevator will take you and your bike up to the top of the bluff on the inclined railway for \$1.50, though it might be a squeeze getting in the thing. The Cassville (WI) Ferry across the Mississippi will charge you \$4.00 but know that it's a gravel road on the Iowa side.



## WHAT TO WEAR

The classic image of a cyclist is the Lycra-clad racing cyclist hunched over the drop bars pounding away down the road, the shorts black and skin-tight, the jersey emblazoned with sponsor logos, sometimes from European hearing aid makers and the like. There are reasons to wear those kinds of clothing, but most of them don't apply to us.

You don't need special clothing to ride bicycles at all. In many countries, people ride all the time in street clothes and you can do that here as well. If you ride a long way, you may find that the seams in regular trousers and underwear abrade more than is comfortable. The easiest answer is to try different underwear. You can get Norwegian wool underwear (Devold) with thoughtful crotch seams made of lovely thin merino wool, not hairy steel wool stuff that makes you itch just thinking about it. There are also special underwear made for cyclists (Andiamos are a common brand) with tight legs and padded crotch. Generally you shouldn't need these things unless you are unusually sensitive or have a long commute.

I say, beware of all enterprises which require new clothes.

-H. D. Thoreau

Most bike jerseys are made of some type of polyester. They like to tout their wicking properties, that is, they move sweat away from the skin, and it's what the pro racers all ride. One reason they ride polyester is that it makes a great substrate on which to print logos and ads. I see people who commute in full racing gear (and they are usually faster than me), but it's not needed. Just wear a t-shirt. In colder weather, like our recent 45 degree mornings, I wear a long-sleeved wool jersey. I've been wearing Carhartt jeans to ride to work, but will soon revert to baggy mountain bike shorts.

I do recommend a pair of cycling gloves. They're padded to reduce the effects of vibration through the handlebars, provide something to wipe your nose on, and will save you a lot of palm skin in the event of a crash.

I don't carry all my work clothes with me. I typically carry along my trousers, undershirt, dress shirt, tie and socks. If I wear cycling shorts (the baggies, not the black Lycra), I'll carry underwear as well. I leave my dress shoes and belt at work; I change into my dress clothes, pad upstairs to my cube and put on my belt and shoes there. I also keep a spare tie and socks in a drawer after one day forgetting to pack socks when I was riding in wearing little ankle socks with flames on them.

Some people take in a week's worth of clothes on Monday (perhaps driving in), then bring home the used clothes each night on the bicycle. Others just ride in their work clothes; this works best if your work is close to or downhill from your home. There is a dry cleaner who picks up and delivers from my workplace; in theory, I could just have all my trousers and shirts done by them and never take them home at all.

I am a big wool fan for cooler weather. Wool doesn't get smelly like polyester and can go unwashed for embarrassingly long periods of time. Wool dress trousers don't accrue wrinkles like cotton ones do; they'll hang out. Wool jerseys work great across wide temperature ranges, and I routinely ride in upper 40-degree temperatures with only a single layer long sleeve wool jersey on. They don't take sponsor logos like polyester does, so are usually more understated and look less dweeby off the bike. Wool does a better job of handling sweat than cotton, doesn't retain it as much, and does a better job insulating if you end up wet and cold, which will happen one day.

Finally, shoes. Lots of serious cyclists wear special shoes that lock into their pedals. These are called clipless even though they clip in. I personally like these, but they aren't necessary. I also find it irritating to have to put on special shoes just to ride to Dairy Queen, so made the compromise of buying pedals that have SPD receivers on one side and a flat platform, suitable for any shoe, on the other, so now I can just hop on and ride when I want to.

One of the most common objections to even the thought of commuting by bicycle is “I have to be dressed up at work”. Even if you don’t have to be dressed up, you probably don’t want to go around smelling horrible with helmet hair all day. Yet those Europeans seem to ride around in dashing clothes without any problem? What to do?

The answer, as with so many questions related to bicycle commuting, depends. It depends on how far you have to go, what it’s like outside, how prone to sweating you are, how nicely you have to dress, whether you have shower or changing facilities and how much mirror time it takes to make yourself presentable.

The most fortunate have shower facilities in their building. I do, and the title of this page is what I called the blog entry where I talked about it. As with bike racks on buses, our work showers are a great thing as long as nobody uses them. There is just a handful of us who bicycle commute to work and I only shower there when I need to. I’ve never had to wait for the shower to be open. However, if we suddenly had sixty people riding in, the single shower and five lockers would be quickly overwhelmed.

In my case, the commute is a fairly easy five miles and I only feel the need to shower at work on the really sticky days when you can’t help but work up a big sweat no matter how slowly you ride. The rest of the time I typically ride to work and then change, damp mopping off my smellier bits in a bathroom, washing my face, and changing into work clothes (typically dress trousers, shirt and tie). When you get all smelly, it’s not so much the sweat as it is bacteria on the skin; set off clean to start with, and a bit of sweat doesn’t matter much.

On longer commutes, this may not be realistic. If there isn’t a shower in your building, perhaps there’s one nearby, like at a health club? Inquire to see if they have a membership level that allows you to just take a shower.

Can you get by with a washcloth wipedown? Although I’ve never personally used them, I have heard many people cite Baby Wipes as a good way to clean off, although you may end up smelling like a baby’s bum. One guy said he pours a bit of alcohol in each package for disinfectant purposes and because it has a bit of a cooling effect.

As long as I’m at it, here are the other products I’ve never tried but read good things about: Rocket Shower (see <http://www.10nine8.net/>), a spray mixed of witch hazel, grapefruit peel oil and peppermint oil, which is “refreshing, cooling and cleansing” and “removes that sticky salty feeling and leaves your skin feeling dry and refreshed”. Those quotes are from a review.

For hair work I have read that Aveda Light Elements Reviving Mist and Aveda Control Paste with Organic Flax Seed work well. It has been ages since I’ve been anywhere close to requiring elaborate hair care (I can even get by without a comb) so I pass this on without any personal experience or observation.

Another product I haven’t tried is Crystal Body deodorant (see <http://www.thecrystal.com/>) which I read about in a bicycling blog. That person really liked it for keeping down odor—the website talks about the sweat/bacteria thing and this deodorant makes an environment inhospitable to bacteria, which are what make you smelly.

There may be other products that facilitate cleanliness without a full shower but you’re on your own on this one. I get by with the damp-wipedown on all but the most humid days and take a shower at work when it gets thick out. Everyone’s situation is going to vary and the ideas above are are starting point to working out your regime.

## RESOURCES

First of all, I'd highly recommend that everyone buy and read a copy of Robert Hurst's "**The Art of Cycling: A Guide to Bicycling in 21st-Century America**". It starts off with quite a bit of history on urban development, cycling, automobiles, etc. but then gets into the meat of riding in an urban setting. I think he hits the right tone in dealing with riding in traffic, his experience mirrors my own and that of other long-time cyclists I know. It's at Amazon if you do that, I got mine at REI.

You might also consider Richard Arey's "**Twin Cities Bicycling**", which highlights a number of rides around the area and which I found very useful when I moved here. If you can't find that, the Twin Cities Bicycling Club just came out with the 7<sup>th</sup> edition of their "**Minnesota Bike Atlas**", also with rides around the area. I got mine at a local bike shop.

I am always referring to Little Transport Press's "**Twin Cities Bike Map**" (and note that they've just come out with the 9<sup>th</sup> edition) to find my way around. I have found it very dependable in the years I've been using it and they've even incorporated a couple of minor revisions I suggested.

**Local Bike Shops.** There are tons of them around, and I haven't been to them all, but these are ones I go to. Please don't take this as an endorsement; your unmentioned local bike shop is probably just fine, but people do ask me about these things. First, **The Bicycle Chain** is right around the corner from me at Lexington and Larpenteur and often has some fun stuff in. As I write this, they have an Xtracycle in the front window. **County Cycles** on Lexington just north of County C is local to me as well, and carries a big selection of accessories and tires. **Hiawatha Cyclery** by Minneapolis's VA Hospital carries the Rivendell, Breezer and A.N.T. bikes I like so much and is Practical Cycling oriented. **Freewheel Bikes** near the West Bank of the U has a huge range and has been a destination store for me since the 1970s. **Hub Bike Coop** has some great practical gear, I got my Shimano generator hub there and they carry the Ortlieb panniers. Hub also has used bikes, as does the **Sibley Bike Depot**, **Sunrise Cyclery** and the quirky **One on One Bike Studio** (ask to visit the basement). One of **Now Bike and Fitness's** Snelling Avenue mechanics once solved a mystifying series of flat tires I was getting (nick in the plastic rim tape gnawing on my tube, as it turned out) for which I was grateful. If you like folding bikes or recumbents, **Calhoun Cycles** is your place, and they carry Ortlieb and Arkel panniers, too, as well as some oddball accessories.

**National Bike Shops.** I tend not to get excited about the Nashbars and Performance Cycles of the world (although Nashbar does carry the excellent Toto basket). Rather, take a look at **Peter White Cycles** and **Harris Cyclery**, both in Boston, at **Wallingford** in New Orleans, or at **Clever Cycles**, in Portland, Oregon. These shops carry all kinds of unusual items, luggage, frames, components, full bikes. Clever Cycles have the superb Dutch utility bikes and bakfiets and first brought in the Basil bags, though now any store that works with Seattle Bike Supply can get them. It was a destination stop for me when I was in Portland earlier this year. I like California-based **Rivendell**, who made my huge Atlantis bike and carry a lot of unusual gear plus have a healthy cycling philosophy. **Velo Orange** in Annapolis, carries a lot of retro gear, some of which I've used. I'm not completely into the French constructeur thing like they are, but appreciate the effort.

Finally, if you want to go custom, there are some excellent local builders. **Curt Goodrich** builds both under his own name and for Rivendell's custom line. **Bob Brown** does lovely work. There are hordes of builders nationally if you want a custom bike, but I'm guessing that's not your focus if you're a Practical Cyclist. However, I would mention Mike Flanigan's Boston-based **A.N.T.** bicycles (Alternative Needs Transportation) and their luscious Light Roadster practical bike.

Pressed for time, I haven't got my links posted yet on the web. Give me a few days and then check at <http://www.uscoles.com/bikeindex.shtml> and I'll have the web links I like for you as well.

## CREDITS

This evening's class has been provided under the auspices of **St. Paul Smart Trips** (see the website at <http://www.smart-trips.org/>). We promote transportation options and mitigate traffic congestion in the City of St. Paul by promoting alternatives to driving alone and advocating for improved transportation infrastructure. As part of the Smart Trips Summit-U program, Smart Trips will be sponsoring a series of events similar to this one in the Summit-U neighborhood this summer, including guided walks, rides and classes.

**Dayton Avenue Presbyterian Church** (<http://www.dapc.org/>) has kindly offered the use of their space and parking lot for this class. The first pastor was hired in 1874; the Cass Gilbert-designed building was completed in 1888 and the congregation remains active and involved 120 years later.



I'm **Matthew Cole** and I wrote this handout. I am a financial analyst with COUNTRY Insurance and Financial Services at their Arden Hills office. I live in Saint Paul, leaving me a five mile commute each way. I have been riding bicycles since I was five and have never quite forgotten that first feeling of freedom the bicycle brought in those carefree 1960s suburban Toronto days. I have never raced, but have toured on bicycles and appreciated Practical Cycling since college. I have always enjoyed things at the intersection of technology and art, and thus spend too much time appreciating cool and innovative bicycle equipment and frames (photography is another hobby arising from the same sort of interest). Since mid-2005, I have written a bicycle blog (Two Cities Two Wheels at <http://twocitiestwowheels.blogspot.com/>) and am in the process of moving the more timeless bits to a website by the same name. I also serve as the Ward 5 representative to the Saint Paul Bicycle Advisory Board, an organization with no budget or staff and all the power and influence that implies! This is the first bicycle class I've taught and I would appreciate comments on the material, presentation and focus of the evening. Please talk to me afterwards or you can e-mail me at [matt@uscoles.com](mailto:matt@uscoles.com).

Matthew Cole  
Saint Paul, Minnesota  
May 2008

"He neither drank, smoked, nor rode a bicycle. Living frugally, saving his money, he died early, surrounded by greedy relatives. It was a great lesson to me."

-John Barrymore

"It never gets easier, you just go faster."

-Greg LeMond