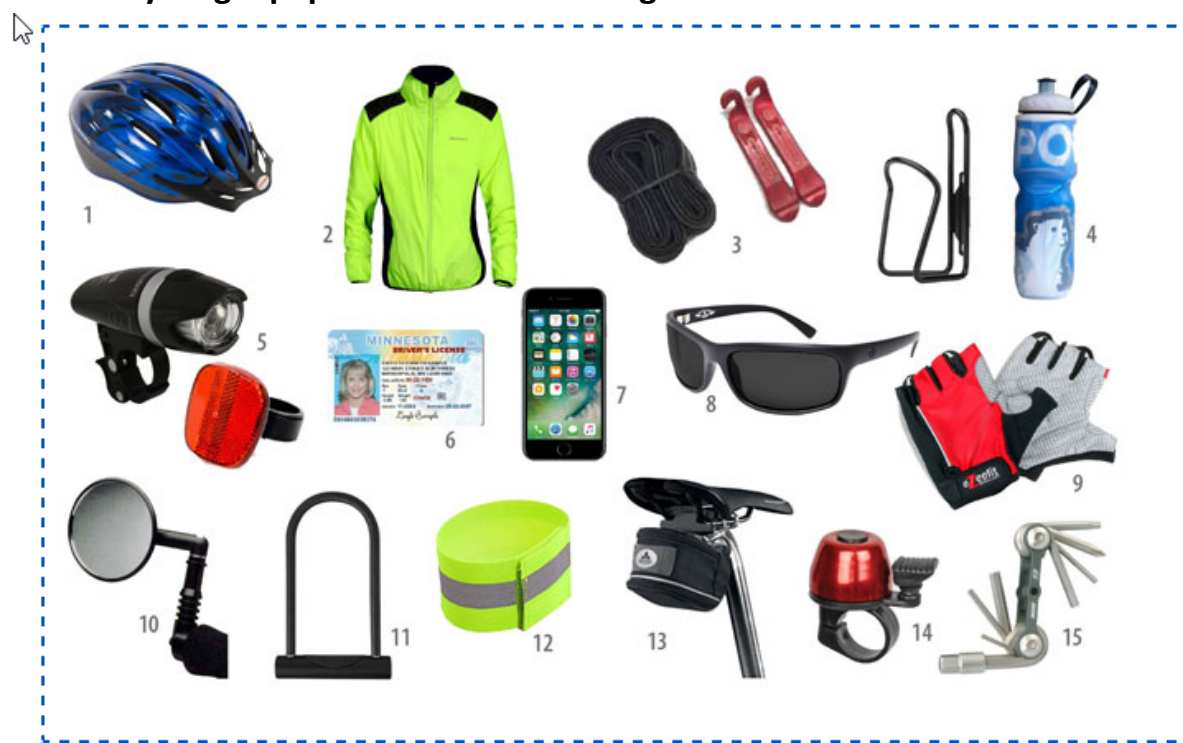


GMBC Intro Riders Handout:

Basic Bicycling Equipment for Road Riding



Basic Bicycle Safety Equipment

1. Wear a properly fitted helmet every time you ride. Wearing a helmet can reduce the severity of head and brain injuries. MIPS, or Multidirectional Impact Protection System Helmets are now an adopted safety standard for bicycling, as they perform some extra protection from possible TBI – Traumatic Brain Injury type crashes.
2. Use reflective tape, gear, or accessories at night to be as visible as possible.
3. Carry a tire pump, tire levers, patch kit, and spare tube.
4. Carry water or a sport drink using a water bottle holder (often called a cage).
5. Equip your bike with a white front headlight as well as a red rear reflector and/or light for riding in twilight, darkness, and poor weather conditions. (Legally required in some states.)
6. Carry identification and pertinent medical information.
7. Carry a cell phone in case of an emergency and to document issues.
8. Use shatter-resistant protective eye wear if possible.

Helpful Equipment

9. Wear bicycling gloves to protect your hands in the event of a crash.
10. Install a mirror on your handlebar, helmet, or glasses to improve your overall awareness and to see trailing vehicles and riding companions.
11. Carry a lock to secure your bike.
12. Wear reflective leg bands to keep long pants away from your chain if not wearing lycra bike shorts or other riding shorts.
13. Carry a bag under your saddle, on your rack (panniers), or on your back.
14. Install a bell or horn to warn others of your approach, especially on trails.
15. Carry a multi-tool to help with basic repairs. A crescent wrench is helpful with certain bikes. (See *Fixing a Flat.*). **(Last Page of document.)**

Basic Hand Signals when Biking on roads or trails and other safety information.



- Obey all traffic signs and signals. Cyclists are not exempt from traffic laws. Signal your intentions clearly and early.
- Signal right turns by extending your right arm OR upturning your left arm.
- Signal left turns by extending your left arm straight out to the left.
- Signal stopping or slowing by extending your left arm straight down with your palm facing rearward.
- If riding in a group, point to and call out hazards to other bicyclists.

Dangerous Behavior for Bicyclists

- Bicycling against the direction of traffic
- Failing to yield when required
- Running stop signs or red lights
- Riding at night in dark clothing and/or without lighting
- Riding unpredictably (such as weaving in and out of travel lanes)
- "Hugging" the curb
- Riding on sidewalks
- Bicycling in motor vehicle blind spots, especially around commercial vehicles
- Distracted or impaired bicycling

Dangerous Behavior for Motorists

- Not looking for bicyclists using facilities or on the road
- Failure to yield to a bicyclist when required
- "Squeezing" a cyclist by passing too close (3-foot minimum)
- Turning directly in front of a bicyclist
- Driving too fast for conditions
- Opening vehicle door into a bicyclist's path
- Driving while distracted (such as texting) or while intoxicated
- Blasting your horn or harassing bicyclists in other ways

Basic Bicycle Safety Equipment

1. Wear a properly fitted helmet every time you ride. Wearing a helmet can reduce the severity of head and brain injuries.
2. Use reflective tape, gear, or accessories at night to be as visible as possible.
3. Carry a tire pump, tire levers, patch kit, and spare tube.
4. Carry water or a sports drink using a water bottle holder (often called a cage).
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6. Carry identification and pertinent medical information.
7. Carry a cell phone in case of an emergency and to document issues.
8. Use shatter-resistant protective eye wear if possible.
9. Wear bicycling gloves to protect your hands in the event of a crash.
10. Install a mirror on your handlebar, helmet, or glasses to improve your overall awareness and to see trailing vehicles and riding buddies.
11. Carry a lock to secure your bike.
12. Wear reflective leg bands to keep long pants away from your chain if wearing long pants and not biking shorts.
13. Carry a bag under your saddle, on your rack (panniers), or on your back.
14. Install a bell or horn to warn others of your approach, especially on trails.
15. Carry a multi-tool to help with basic repairs. A crescent wrench is helpful with certain bikes.

Repairing a flat tire on bicycles

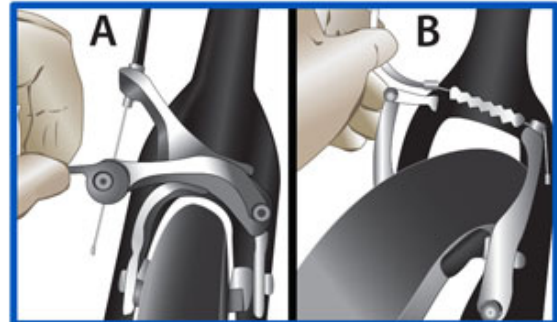
Basic Tools

- Spare tube
- Tire lever
- Pump or inflator
- Crescent wrench (if wheels are bolted on)
- Patch kit (not pictured)



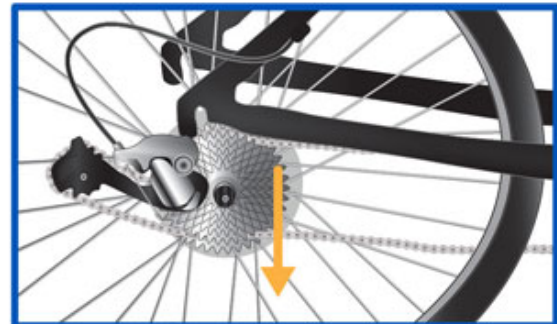
Release Brakes

- Graphic A. On side-pull brakes, there is usually a tension-release lever on the side.
- Graphic B. On V-Brakes remove cable from arm.



Remove Wheel

Unlock quick-release lever or loosen wheel nuts, and remove wheel from frame. Contrary to the illustration, the chain should be on the smallest chain ring for wheel removal.



Unseat Tire

Use tire lever to unseat tire from rim on one side only.



Remove Tube

Reach into tire and pull tube out. Generally, first pull the part of the tube that is opposite the valve stem.

**Check Tire/Tube**

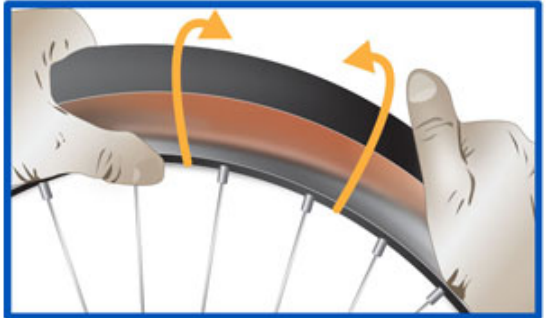
Run a cloth on the inside of the tire and across the tube to check for embedded objects such as glass, nails, etc.

**Install New Tube**

Slightly inflate tube to give it shape. Put valve stem in first.

**Put Tire Back on Rim**

Carefully work tire back on rim, making sure not to pinch tube between rim and tire. Start with section by valve stem. Push valve stem upwards to make sure it is not caught between tire and rim.

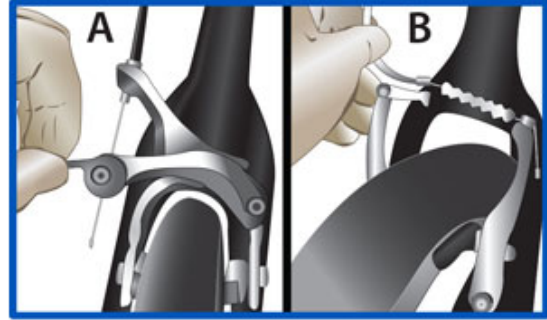
**Pump Tire**

Use your pump or inflator to re-inflate the tire. The proper PSI will be listed on the wall of the tire.



Replace Wheel

Put the wheel back into the frame. Tighten and close the quick release mechanism or tighten the nuts for the wheel. Also remember to re-engage your brakes.



All literary material used in this document is described in the footnotes for your Reference.

¹Basic Bicycling Equipment for Road Biking.

²Basic Road Hand Signals when biking on roads or Trails .

³Basic Bike Safety Equipment.

⁴Dangerous Behavior for Bicyclist and Motorists.

⁵Fixing a Flat

¹ Bike MN – Bike Alliance of Minnesota – BikeMN.org/Education

² Same as the previous footnote. URL: <http://www.bikemn.org/education/minnesota-bicycling-handbook/hand-signals>

³ Same as the previous footnote. URL: <http://www.bikemn.org/education/minnesota-bicycling-handbook/safety-equipment>

⁴ Same as the previous footnote. URL: <http://www.bikemn.org/education/minnesota-bicycling-handbook/dangerous-behavior>

⁵ Same as the previous footnote URL: <http://www.bikemn.org/education/minnesota-bicycling-handbook/fixing-a-flat>