

Appendix M.

Key Components of Bicycle Education Programs

Topics that should be covered in bicycle safety education programs include:

- Wear a helmet.
- Obey stop signs and traffic signals.
- Ride in the same direction as adjacent motor vehicle traffic.
- Be as visible as possible and understand the heightened risks of bicycling at night.
- Ride on roadways versus riding on sidewalks. If it is necessary to ride on a sidewalk, keep speeds close to a typical jogging speed. Be aware of risks at intersections and always yield to pedestrians. Operate with extreme care near pedestrians.
- Ride away from parked cars (and their driver-side doors).
- Avoid pulling out from behind turning automobiles at an intersection. (This is particularly important when bicyclists are behind large vehicles, because it is extremely difficult for motorists from the opposing direction to see approaching bicyclists).
- Ride safely near large trucks, including understanding safety issues related to right-turns. To make right-turn movements, trucks often move left, opening up space along the curb to their right. It is important not to enter this space, because the truck will swing right again to make the turn. Visibility on the right side of a truck also tends to be more difficult for truck drivers.

Note that the safety topics included in each program will need to be tailored to a target audience. Education programs provided for children should use youth-specific curricula and age-appropriate language to explain concepts and safety issues. In addition, youth-based programs need to take into account that children under the age of eight or nine do not have fully-developed peripheral vision and cannot judge the speed of an approaching vehicle.

Head injuries cause about three-fourths of the 800 to 900 deaths resulting from bicycling-related accidents in the U.S. each year. According to a study conducted by the Harborview Injury Prevention and Research Center, helmets that meet federal CPSC standards can cut the risk of riders' head injuries by 85%.

Disobeying traffic controls is one of the most common causes of bicycle crashes in the city of Seattle. Bicyclists who do not stop at traffic signals or stop signs create a risk for themselves, pedestrians, motor vehicle drivers, and other users of the transportation system. Bicyclists who disregard traffic control may create public animosity towards all bicyclists, even if the majority of bicyclists follow the rules of the road.

Riding against traffic, either on the sidewalk or on the roadway, increases the risk of being involved in crashes at driveways or intersections because drivers turning right from intersecting streets typically only look left before they turn and do not see bicyclists approaching from the opposite direction.

Adult bicyclists are encouraged to ride on roadways rather than on sidewalks in Seattle. While the roadway is typically the safest location for most bicyclists to ride, it is generally acceptable for bicyclists to ride on the sidewalk if they travel at or below the design speed of the sidewalk (often the speed of a typical jogger). However, most bicyclists typically travel faster than this speed. Bicyclists on sidewalks do not approach intersections from the same areas as motor vehicle traffic, so they can be difficult for drivers to see,

particularly when they are traveling at high speeds. Further, bicycling on sidewalks can cause conflicts with pedestrians, particularly in busy commercial areas.

There are a few situations where it may be useful for bicyclists to ride on the sidewalk. These include:

- Bicyclists are traveling slowly (no faster than the design speed of a sidewalk, which is typically close to the speed of a slow jogger)—this includes child bicyclists.
- Bridges without on-road bicycle facilities.
- Locations where a bicyclist would need to cross a multi-lane roadway to ride in the same direction as traffic for a short distance (the crossing may be impractical and potentially less safe than riding in the opposite direction as traffic on the sidewalk).
- Short sections of one-way streets, especially where steep hills (downtown) make going around the block very impractical.

In these cases, bicyclists should ride in the same direction as vehicles in the adjacent roadway lanes, whenever possible.

It is imperative that bicyclists who chose to ride on the sidewalk in either direction be educated about the hazards associated with this practice. Bicyclists must always yield to pedestrians on sidewalks.

When riding at night, bicyclists must ride with front and rear lights to increase their visibility to drivers. Additionally, bicyclists should be encouraged to wear appropriate color clothing and other reflective materials to be even more visible.

While these critical safety issues are important for bicyclists to be aware of, drivers must also be targeted with these educational messages to increase their awareness of bicycle crash risks. Motorists should be instructed to look in both directions for bicyclists when turning at intersections, drive more slowly, and be aware of the potential for bicyclists riding at night.

Rules of the Road

For bicyclists:

- Follow the same laws that apply to motorists. Obey all traffic signals, signs, and lane markings. Always yield to pedestrians.
- Ride on the right side of the road with the flow of traffic—never against it.
- Always wear a properly fitting helmet.
- Ride predictably, assertively, and be alert. Use hand signals before turning.
- Be visible. If riding at night, use lights, reflectors, and bright clothing.
- Avoid riding on sidewalks, if possible. If it is necessary to ride on a sidewalk, keep speeds close to a typical jogging speed. Be aware of risks at intersections and always yield to pedestrians.

For motorists:

- Obey speed limits. Higher speeds result in greater injuries to cyclists and pedestrians.
- Obey signs, signals, and markings. Never run red lights.
- Always look for bicyclists when turning left or right.
- Pass bicyclists giving at least three feet of space. Slow down and do not pass if space does not allow.
- Do not use your horn in close proximity to bicyclists.
- Look for bicyclists when opening doors.
- Watch for children.
- Watch for bicyclists riding at night.

Safety messages should be targeted to drivers and bicyclists, including adults and children. Information about bicycle safety should be shared in the following ways:

- Seattle Bicycling Guide Map.
- Web sites.
- Signs on buses and bus shelters.
- Brochures available at parks, transit stations, stores, schools, etc.
- Public service announcements on radio and television.
- Roadside variable message signs.
- “Share the Road with Bicycles” bumper stickers and license plates.