The Six Minute Guide

Need One? Yes!!

The average careful bike rider may still crash about every 4,500 miles. Head injuries cause 75% of our 700 annual bicycle deaths. Medical research shows that bike helmets can prevent up to 85% of cyclists' head injuries. And helmets may be required by law in your area.

How Do Bicycle Helmets Work?

A helmet reduces the peak energy of a sharp impact. This requires a layer of stiff foam to cushion the blow. Most bicycle helmets do this with crushable expanded polystyrene (EPS), the familiar picnic cooler foam. EPS works well, but when crushed it does not recover. A similar foam called expanded polypropylene (EPP) does recover, but is much less common. Other foams and deformable plastic systems are appearing that offer promise. The spongy foam pads inside a helmet are for comfort and fit, not for impact protection.

The helmet must stay on your head even when you hit more than once--usually a car first, and then the road, or several trees on a mountainside. So it needs a strong strap and an equally strong buckle. The helmet should sit level on your head and cover as much as possible. Above all, with the strap fastened you should not be able to get the helmet off your head by any combination of pulling or twisting. If it comes off or slips enough to leave large areas of your head unprotected, adjust the straps again or try another helmet. Keep the strap comfortably snug when riding. The straps hold your helmet on, not the rear stabilizer.

What Type Do I Need?

Most helmets are made of EPS foam with a thin plastic shell. The shell helps the helmet skid easily on rough pavement to avoid jerking your neck. The shell also holds the foam together after the first impact. More expensive helmets are made by molding foam in the shell rather than adding the shell later, and may be stronger.

Beware of gimmicks. You want a smoothly rounded outer shell, with no sharp ribs or snag points. Excessive vents mean less foam contacting your head, which could concentrate force on one point. "Aero" helmets are not noticeably faster, and in a crash the "tail" could snag or knock the helmet aside. Skinny straps are less comfortable. Dark helmets are hard for motorists to see. Rigid visors can snag or shatter in a fall. Helmet standards do not address these problems--it's up to you!

Standards

A sticker inside the helmet tells what standard it meets. Helmets made for the U.S. must meet the US Consumer Product Safety Commission standard, so look for a CPSC sticker. The Snell foundation's standard is tougher but seldom used. Fit is not guaranteed by any standard, so test that on your own head. Visors are not tested for shattering or snagging in a fall, so you are on your own there.

Comfort

Coolness, ventilation, fit and sweat control are the most critical comfort needs. Air flow over the head determines coolness, and larger front vents provide better air flow. Most current helmets have adequate cooling for most riders. Sweat control can require a brow pad or separate sweatband. A snug fit with no pressure points ensures comfort and correct position on the head when you crash. Weight is not an issue with today's bicycle helmets.

How to Buy

When you pick up a helmet, look first for a smooth, well-rounded shell with a bright color outside. Put it on, adjust it and then try hard to tear it off. Check out the vents and sweat control. Helmets sell in bike shops from $30 up. The are cheaper in discount stores or online. A good shop helps with fitting, and fit is important for safety. Lab tests show that the $10 discount helmet is equally protective if you take the time to fit it carefully, and for another $10 you get easier fitting. Helmets are cheap now and seldom on sale, so don't wait for a sale price. Many of us bought our helmets after a crash. You can be smarter than that.

Brands

Consumer Reports rated helmets in 2006 and 2009. They test only a handful of the many helmets on the market. Most of them were rated good. Their picks include the Bell Citi and Bell Slant for adults, and the Schwinn Thrasher, Bell Trigger, Bell Amigo, Giro Me2 and Bell Boomerang for kids.

The Two Minute Summary

- **You always need a helmet wherever you ride. You can expect to crash in your next 4,500 miles of riding, or maybe much sooner than that!**
- **Even a low-speed fall on a bicycle trail can scramble your brains.**
- **Laws in at least 22 states and 201 localities require helmets, although few cover adults.**
- **Make sure your helmet fits to get all the protection you are paying for. A good fit means level on your head, touching all around, comfortably snug but not tight.**
- **Standards are no longer a big issue, but check inside for the CPSC sticker.**
- **Common sense tells you to avoid a helmet with snag points sticking out, tiny vents, excessive vents, an extreme "aero" shape, dark colors, thin straps, overly fussy adjustments or a rigid visor that could shatter or snag in a fall.**
- **Pick white or a bright color to be sure that motorists and other cyclists can see you.**
- **Lab tests show that the impact performance of cheap helmets equals that of the most expensive models.**
- **If you have 6 more minutes, read on!**

Special Problems

Some head shapes require more fiddling with fitting pads and straps. Extra small heads may need thick fitting pads. Extra large heads require an XXL helmet. Ponytail ports can improve fit for those with long hair. Bald riders may want to avoid helmets with big top vents to prevent tan lines.

When to Replace a Helmet?

Replace any helmet if you crash. Impact crushes some of the foam, but the damage may not be visible. Helmets work so well that you need to examine them for marks or dents to know if you hit. Most manufacturers recommend replacement after five years. We think that depends on usage, and many helmets given reasonable care are good for longer than that. But if your helmet was made before 1990, it's time to replace it. Replace the buckle if it cracks or a piece breaks off. No one requires you to replace your helmet, so give it some individual thought.

Bike Helmets for Skating?

Standards for biking and inline skating are identical. But extreme, trick, aggressive skating and skateboard helmets have their own ASTM standard (F1492), designed for multiple hits with lesser impact severity. Those helmets may not handle bicycling impacts. **Do not use a skate helmet for bicycling unless it has a CPSC bicycle helmet standard sticker inside!**

Warning: Children must remove helmets before climbing on playground equipment or trees, where a helmet can snag and choke them.

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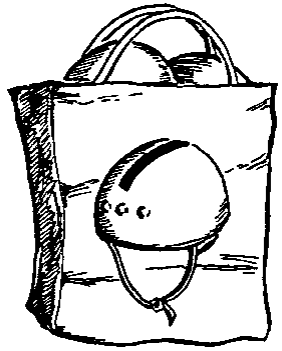
Volunteers funded by consumers, not the industry.

Buyer's Guide to Bicycle Helmets



Bicycle Helmet Safety Institute
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