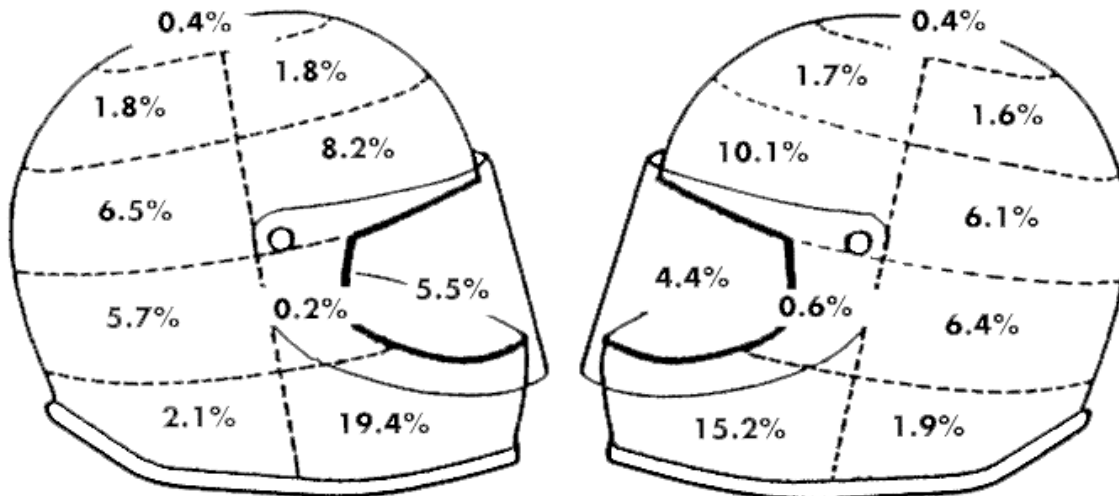




<http://www.GearUpProject.org>

**THANK YOU** for helping to keep our fellow riders safe. If you think you can help improve this document please do. We'd love to hear your feedback: [gearup@gearupproject.org](mailto:gearup@gearupproject.org)

## Some tips on what to look for when buying gear



### Helmets:

- With 34.6% of the impacts in the jaw area there's no excuse for not wearing a full-face helmet, especially when there's such a huge range of great looking graphics to choose from.
- All helmets should have a DOT certification sticker. Better yet, Snell and ECE 22.05 certification. It's still hard to find ECE certified helmets in the US.
- Always try a helmet on before buying. Helmets come with different inner shapes just like heads do (see the link to WebBikeWorld's helmet FAQ below). Some manufacturer's helmets simply aren't going to be the right shape for your head, and as with shoes, sizing varies slightly from manufacturer to manufacturer.
- Find a brand that's got good reviews when it comes to handling fogging. Fogging up is a significant issue, which can be alleviated by products like "Cat Crap", but it's best to start off with a helmet that's more resistant to fogging.

- Consider adding retroreflective tape to any helmet. You can get 3M Scotchlite tape for a few dollars at any auto-parts store and cut it into interesting patterns.
- In 2004 a study found that riders who wear white helmets have a 24 percent lower accident rate than riders who wear black helmets. Since then scorpion has come out with a high-viz neon yellow helmet, which has been shown to be one of the most visible colors. Until other manufacturers start making high-viz helmets we're recommending this helmet to anyone with a head that fits well in Scorpion helmets.

### **Garment Materials:**

When it comes to Jacket and Pant materials your three best choices are Cordura/Dynatech, Kevlar, and SuperFabric. Cordura (like all cloth) comes in various Deniers which has a variety of related definitions which essentially mean how dense the fabric is. The higher the number the better. I've seen garments with denier's of 2000. Denim Jeans and 70 denier nylon require 4.5 pounds of force to tear. That's nothing. If you're lucky that'll last 5 feet of scraping. 620 denier takes 35 pounds and is roughly where most motorcycle gear is. 1000 denier is 110 pounds which is getting better and is about the same as really good, racing leather which will last for about 80 to 100 feet of sliding down the road, but it's still not much when you compare it to good kevlar which requires over 1,200 pounds to tear and SuperFabric which claims to have 14 times the abrasion resistance of Kevlar. There aren't many manufacturers that offer Kevlar, and right now RevIt is about the only company using SuperFabric which has microscopic pieces of ceramic embedded in it.

The same study that found that riders were 24% less likely to be in an accident with a white helmet also found that riders wearing any reflective or fluorescent clothing had a 37% lower risk ... than other riders. Look for Retroreflective strips in pants and jackets and buy high-viz colors, or a high-viz vest whenever possible.

### **Jackets:**

- Never buy a jacket that doesn't have CE Certified back, shoulder and elbow armor.
- Many manufacturers use a thin foam pad on the back instead of CE certified armor and try to claim that this offers some sort of useful protection. Next to your brain there is no part of your body more important than the spine. Do not risk it to some cheap uncertified pad.
- A waist length jacket is likely to slide up during an accident unless it is attached to your pants. Frequently this means buying pants and jacket from the same manufacturer. You're better off with a three-quarter length jacket.
- Sealable ventilation: It's important to have a jacket that can keep you cool on those 80+ days. Similarly, it's important that when the temperature drops unexpectedly you're not going to freeze. Look for jackets with removable liners and lots of ventilation that can be easily sealed off.

### **Pants:**

- CE Certified armor in the knees.
- Adjustable knee pads. Some people's knees are closer to their hips, relatively, than others. You'll want to be able to adjust the height of those knee pads.

- CE Certified armor in the hips. Unfortunately, this is not offered by many manufacturers. Many pants include no padding at all, some include significant but non-certified padding. Do the best you can here. Don't buy pants with nothing there.
- If you commute to work make sure the pants can be easily pulled on and off over your typical work pants.

### **Gloves:**

- Always try gloves on in the store. It's not just about getting the right size, but also making sure that it's still easy to grip your hand around the throttle, and that it doesn't make it harder to quickly reach for the brake.
- Cold hands have slower reaction times. If you're going to be riding in cool weather, or heavy rains, be sure to get yourself some winter gloves too.
- Many gloves come with Kevlar, and Carbon fiber protection over the knuckles. The more protection you can get the better.

### **Boots:**

- Motorcycle boots are a lot like ski boots. You want to keep your ankle from twisting, prevent the heel, ankle bones, and toes from damage upon impact, and have a material that will survive being dragged across the road. The things you want that a ski-boot doesn't offer are the ability to more-easily bend your ankle vertically (for shifting), nice grippy bottoms, and the ability to walk like a human. Some boots will also provide you with good shin protection, because the armor in your pants probably doesn't extend down terribly far below the knees.
- Laces can get caught in motorcycle chains, or foot pegs and have caused innumerable accidents. Some boots offer ways to tuck laces away safely or a Velcro flap to cover them.
- Many have armor in the right places, but most of the time it isn't CE rated so you'll just have to use your best judgment. When choosing a boot don't forget about waterproofing.
- Get boots that you'll be comfortable walking around in when you get wherever you're going on those short trips. Otherwise you'll be likely to skip wearing them.

### **Links**

- WebBikeWorld's excellent Helmet FAQ  
<http://www.webbikeworld.com/motorcycle-helmets/motorcycle-helmet-faq.htm>
- Minnesota Motorcycle Safety Center's page on Riding Gear  
<http://www.dps.state.mn.us/mmssc/latest/MMSCHomeSecondary.asp?cid=5&mid=79&scat=62>
- ECE 22.05 Motorcycle Helmet Standard  
<http://www.webbikeworld.com/motorcycle-helmets/ece-22-05.htm>
- So you want to ride a motorcycle... and not die <http://weblog.masukomi.org/2008/04/05/so-you-want-to-ride-a-motorcycle-and-not-die>
- Motorcycle rider conspicuity and crash related injury: case-control study  
<http://www.bmj.com/cgi/content/abstract/328/7444/857>
- The Gear Up! Project  
<http://www.GearUpProject.org>