

Motorcycle Accessories & Customization

What You Should Know About Motorcycle Helmets - October 2009

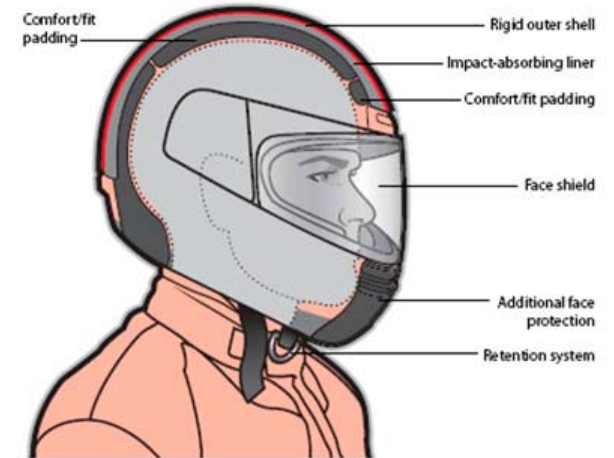
October, 2009: In past issues of the Source we have looked at the proper procedure for fitting helmets. One thing we didn't discuss was the importance of choosing a quality helmet over a bargain brand. Just like many other purchased items, with helmets you do get what you pay for. So here is some important info to share with customers in order to help express the significance of purchasing a quality helmet.

Four basic components work together to provide protection in the motorcycle helmet: an outer shell; an impact-absorbing liner; the comfort padding; and a good retention system.

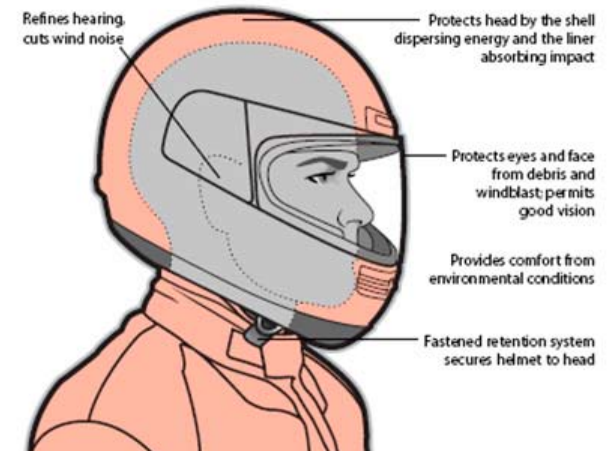
What we see first is the outer shell, usually made from some family of fiber-reinforced composites or thermoplastics like polycarbonate. This is tough stuff, yet it's designed and intended to compress when it hits anything hard. That action disperses energy from the impact to lessen the force before it reaches your head, but it doesn't act alone to protect you.

Inside the shell is the equally important impact-absorbing liner, usually made of expanded polystyrene (commonly thought of as Styrofoam). This dense layer cushions and absorbs the shock as the helmet stops and your head wants to keep on moving. Both the shell and the liner compress if hit hard, spreading the forces of impact throughout the helmet material. The more impact-energy deflected or absorbed, the less there is of it to reach your head and do damage. Some helmet shells chip and loose layers on impact. Others may crack and break if forced to take a severe hit; this is one way a helmet acts to absorb shock. It is doing its intended job. Impact damage from a crash to the non-resilient liner may be invisible to the eye; it may look great, but it probably has little protective value left and should be replaced.

Basic Construction



Protective/Comfort Attributes



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The comfort padding is the soft foam-and-cloth layer that sits next to your head. It helps keep you comfortable and the helmet fitting snugly. In some helmets, this padding can even be taken out for cleaning.

The retention system, or chin strap, is very important. It is the one piece that keeps the helmet on your customer's head in a crash. A strap is connected to each side of the shell. Every time your customer puts the helmet on, fasten the strap securely. It only takes a couple of seconds. To ride without your helmet secured would be as questionable as driving without your seatbelt fastened.

Choosing a Helmet

While colour, design and price may be a part of the decision about which helmet to buy, customers should think first about protection and comfort. A full-face helmet gives the most protection since it covers more of the face. It usually has a moveable face shield that protects the eyes when it is closed. Racers prefer full-face helmets for the added protection and comfort.

A three-quarter, open-face helmet is also a choice of some riders. It is constructed with the same basic components, but doesn't offer the face and chin protection of full-face helmets. If an open-face helmet is used, your customer should have a snap-on face shield in place when they ride, or buy a pair of goggles that can withstand the impact of stone or other debris. Prescription eyeglasses or sunglasses are not sufficient protection, and they might move or fly off.

A "shorty" half-helmet protects even less of the head. It is more likely to come off the head upon impact. A lot of good helmets are available today, in a range of prices. One look around your dealer's helmet display will convince you that nearly any decoration you could want on a helmet is already available. Many manufacturers are colour-coordinating their helmets with the newest motorcycle models.

And the days of heavy or cumbersome helmets are over. They're made of lightweight, modern materials and are improved each year. Manufacturers are also working to make them less expensive, stronger and more comfortable. What you must know when recommending a helmet is that it meets minimum safety standards. The way to find a well-made, reliable helmet is to look for the DOT and/or Snell sticker on the inside or outside of the helmet. The sticker means the helmet meets the safety test standards of the Department of Transportation and/or the Snell Memorial Foundation.

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Each organization has rigid procedures for testing:

Impact – the shock-absorbing capacity of the helmet.

Penetration – the helmet’s ability to withstand a blow from a sharp object.

Retention – the chin strap’s ability to stay fastened without stretching or breaking.

Peripheral vision – the helmet must provide a minimum side vision of 105 degrees to each side. (Most people’s usable peripheral vision is only about 90 degrees to each side.)

Since 1980, ALL adult-sized helmets for on-highway use must meet DOT standards. Helmet dealers and distributors must ensure that all the helmets they sell bear the DOT sticker. Whatever your helmet choice, be sure it has this certification. You don’t want an inferior helmet or one designed for another purpose.

Snell has been testing helmets since the 1950s. The use of Snell standards by helmet manufacturers is voluntary. Unlike DOT standards, Snell testing is revised (most recently in 2000) as helmet design and technology improve. Both agencies attempt to reproduce, under test conditions, the situations that are hazardous to motorcyclists. Their testing methods differ, but the intent is the same: to make certain any helmet they approve has life-saving, shock-absorbing minimums.

Look in the pages of our next Source publication where we will take a closer look at the Snell testing procedures.