

When Should I Replace My ASTM/SEI Equestrian Helmet ?

This is one of the most frequently asked questions which come to members of the Equestrian Protective Headgear subcommittee of ASTM International.

Manufacturers of equestrian helmets vary in their answers, ranging from no recommendation to three, five, or eight years. Thanks to recent research from MEA's Forensic Lab's testing of 675 bicycle helmets' liners, some of them 26 years old, there is now evidence that uncrashed helmets are tougher than we previously believed. Their findings show that helmet liner foam doesn't deteriorate significantly with age. Equestrian helmets and bicycle helmets use the same types of liner foam, so these findings are useful for both types of sport. For more technical details about the study, go to www.helmets.org and their UPDATE newsletter.

But what about a helmet in a crash where you hit your head ? Or if you drop the helmet on a hard surface ? Since helmet foam is made for one-time use, it is no longer as protective after an impact even if it shows no visible damage. Most dents in the foam are hidden by the helmet shell, and cracks may be small and hard to see. If you can see marks, cracks or crushes on the shell or see any foam crush or cracking, the helmet should be replaced. If there is damage to its straps or fasteners, or its SEI sticker is missing, it also needs to be replaced.

Many manufacturers have a replacement allowance for a crashed helmet, or may inspect the helmet for you. This information can be found in the owners manual which comes with a new helmet as part of the ASTM/SEI standard and certification process. If you have a question you can contact the company for details; you can find the list of certified product manufacturers at www.seinet.org. Most replacement policies tell you how long they are in effect after your helmet purchase, and require you to submit a copy of your original invoice, so you need to be sure to keep that with your owners manual in a safe place. Others may require you to send in a registration card to qualify.

The www.helmets.org/substancetest.htm website article has the results of testing done on liner foam with a wide variety of substances which might cause damage. This includes hairsprays, sunscreens and insect repellents, some of which are part of a barn's routine maintenance. The photos will make you think twice about what you might spray on your hair or into you helmet. Your owners manual may also warn against use of paints, solvents, bug sprays, chemicals and storing the helmet near fertilizers or any of these substances, so make sure you follow their advice. Please treat your helmet with the same care you would show a small child; unless your tack room is kept at a controlled temperature away from any hazards your helmet will appreciate being allowed to live in your house.

Although ASTM/SEI helmets are tested after eight hours each of high temperatures, low temperatures, and wet conditions, some manufacturers tell you not to store your helmet in direct sunlight or any place where the temperature is more than 130 degrees Fahrenheit such as the inside of a vehicle. A helmet stored in sub zero temperatures may feel less comfortable than usual until your head warms up the liner. Cold weather riders often use knitted earbands or close fitting stretchy liners (sometimes called do-rags) under their helmets, but you should make sure that the fit is still correct with these. An alternate choice is to find the largest and stretchiest knit cap which will fit over the entire helmet and below your ears.

A responsible helmet owner follows all fitting instructions which come with a new helmet, since there are many different systems depending on each model. And of course you know not to drill holes in your helmet; if you are considering applying decals or stickers, check with the manufacturer to be sure they are safe to use.

Historical Note: USPC's original Safety Committee was responsible for the development of its own USPC equestrian helmet standard in 1980. This led to the ASTM equestrian standard F1163 which was completed in 1988. Using our example next came an ASTM standard F11446 which has been used as the basis for a wide variety of U.S. sports helmets, including bicycle, skateboard, and skiing, to mention a few. Each of the other sports may add their own requirements since their hazards may be different.