

Snell Memorial Foundation's Response to:
The New York Times online article "Sorting Out Differences in Helmet Standards"

Dear Sirs;

I welcome the opportunity to discuss the advantages of Snell certification in response to Mr. Ford's recent article, "Sorting Out Differences in Helmet Standards" which appeared in the New York Times on-line edition, September 24, 2009.

Mr. Ford describes Snell as "financed by helmet makers." In fact Snell receives no direct financial support. Snell certification services are conducted on a fee for service basis. Charges are levied for testing and for the Snell certification labels which go into each Snell certified helmet. These are the only revenues. Snell's directors and staff (www.smf.org) are not allowed any financial connection with the helmet industry. This is customary for any not-for-profit organization serving the public interest. Further, Snell's charges to the industry are minimal. The real costs of Snell certification go into the additional engineering and quality control necessary to meet Snell standards. The value is in the helmets.

Mr. Ford mentions conflicts. There is no real conflict between Snell standards and government mandated helmet requirements. Helmets must meet the government requirements or they are not eligible for sale. Snell motorcycle helmets distributed for sale in the US meet DOT requirements. It's the law. In fact, NHTSA suggests that Snell certification can be a better indication of DOT compliance than a simple "DOT" label by itself.

And there is no real cause for conflict between Snell standards and those who prefer the mandatory minimums set forth in the United States' DOT standard or in ECE 22-05 now required in Europe. Snell standards are voluntary. Manufacturers choose to produce Snell certified helmets and riders choose to wear them. The reason Snell has been able to set standards and certify helmets for the last fifty years is that many riders, experts and manufacturers agree that Snell standards and Snell certification demand more than the mandatory minimums.

Mr. Ford contends that Snell certified helmets are too hard. But he offers no data supporting the conjecture that softer helmets will reduce the incidence of fatality or serious, long term head injury. And of the few experts he names, none have published any basic research on brain injury. What is true is that Snell certified helmets have met and continue to meet US Federal requirements. And these Snell certified helmets will provide protection in head impacts much more severe than those called out in the Federal tests.

There are at least two dimensions to helmet performance: momentum and energy. The helmet must control the momentum transfer between the wearer's head and the impact surface, that is; it must be sufficiently soft to keep the g's within safe levels. But the helmet must also manage the total impact energy. Because once the energy management is exhausted, the helmet loses all capacity to limit g levels. Any remaining shock will, instead, test the physical limits of the rider's bone and tissue. There seems to be no upper limit to the amount of energy management a rider might ever need. And street riders certainly need as much or more than riders in many competitive events. Snell standards look for all the energy management any rider, street or competition, could reasonably be expected to wear.

DOT requires only a fraction of the impact energy management demanded in Snell standards and ECE 22-05 demands even less than DOT. But there is no official objection to helmets managing more than these mandatory minimums. And there is a considerable gap between these minimums and the most that current technology can provide. Snell certification identifies helmets with premium levels of impact management and, in so doing, serves those who choose to build those helmets and those who choose to wear them.

Mr. Ford refers to Mr. David Thom's comparison study of helmets performed for Motorcyclist Magazine. In fact, Mr. Ford himself wrote the resulting Motorcyclist Magazine article. Our objection, at the time, was that the comparison avoided the issue of energy management capacity. Only liner softness was considered. Interestingly though, all the helmets described in the article appeared to satisfy all the mandatory requirements. So to say that any one of these helmets was better than another, calls the mandatory requirements into question. But without studies demonstrating reduced incidences of serious injury or death, such statements are unwarranted.

Mr. Ford worries over the differences between the current Snell M2005 and the M2010 revision which takes effect in October. The principal motivation for M2010 is that it makes it possible for the same helmet to meet Snell, US and European requirements. Riders everywhere may now be able to choose headgear with premium levels of impact management just as riders in the US have for years.

Mr. Ford also worries that there may not be any helmets certified to both Snell M2010 and ECE 22-05. In fact, a helmet meeting both M2010 and ECE 22-05 has been advertised in Europe since spring. When this M2010/ECE helmet succeeds, I'm sure the manufacturer will not have to wait too long for competition.

Finally, Mr. Ford worries that riders will not be able to distinguish between helmets certified to M2005 and those certified to M2010. He closes with the suggestion that riders avoid Snell certification altogether. I anticipate no such problems. Snell does not require it but I am certain that every manufacturer of M2010 certified helmets will proclaim their M2010 status loudly and clearly. However, I am also certain riders will be as well protected with M2005. My own advice is simply this: Wear a helmet. If you can, wear a Snell certified full face helmet. If none of those will do, then wear a Snell certified open face helmet. And if none of those will do, then wear a good DOT or even ECE 22-05 helmet from a reputable company. But wear a helmet. Our species has no inborn capacity for sustaining direct head impacts. Anyone in harm's way ought to armor up.

Sincerely

Edward B. Becker
Executive Director/Chief Engineer
Snell Memorial Foundation