

Eventing Risk Management Q&A

What is risk management in Eventing?

The FEI Eventing Risk Management and Action Plan was created and incorporated in the FEI Eventing Rules in 2010, in response to the Hartington Report from 2000. It combines two streams of activity: active and passive measures that should be used to minimise the risk in what is and will remain a risk sport.

The primary objective of the FEI Eventing Risk Management Action Plan, and one of the key recommendations in both the Hartington and subsequently the Barnett Report of 2015, is to reduce horse falls, and particularly rotational falls. In 2016, a Steering Group was established to continuously investigate and review risk management related matters in Eventing and make recommendations to the Eventing Committee in order to minimise risk and optimise safety. The Steering Group is made up of a cross section of specialists in their field covering all areas including Medical and Veterinary science; Physics, Coaching and Course Design; and, Athlete and Technical Delegate backgrounds/expertise.

What has the FEI done on risk management to date?

Since 2004, the FEI has embraced a holistic approach to risk management, with thorough data collection and analysis in order to have a detailed overview of what is happening in the sport to understand the trends, and to monitor the effects of the different actions put in place to mitigate and minimise risk. Part of the holistic approach also requires having a broad view on the different risk factors, including data analysis on fences and the use of frangible technology but also other mitigating factors.

The FEI Eventing Risk Management and Action Plan includes both active and passive measures to minimise risk:

- **Active measures** are the preventative elements which are aimed at preventing accidents or incidents on the cross country. These include, but are not limited to, extensive data collection and detailed data analysis; reviewing events with officials where there are serious falls or falls above the set percentage; improving coaching for both horse and athlete; implementing a National Safety Officer programme; educating officials to take action in regard to risk assessment and prevention during events; adjusting horse and athlete qualifications (MER's); implementing disciplinary procedures such as recorded warning cards and penalties for dangerous riding; reviewing scientific analysis of equine vision in relation to performance on obstacles; course design including ground conditions; and collaborating on specific studies related to Risk Management.
- **Passive measures** are the protective secondary actions, which are aimed at limiting the consequences of an incident caused by a mistake of horse or athlete. These include, but are not limited to, athlete protection (helmet, body protectors, air vests); specialist medical and veterinary protocols on cross country; and, frangible technology.

The FEI works with equestrian data science companies such as EquiRatings, to analyse the data collected from each FEI Event to understand trends and develop changes which contribute to risk reduction. For example, the Horse Form Index (HFI) was developed to allow athletes, owners and officials to understand how their horse performs based on its most recent history. Continued good performances may be one indicator of horses ready to go to another level and vice versa.

So have the numbers of rotational falls been reduced?

From 2010 to 2019 the number of starters in FEI Eventing competitions increased by 33%. In the 10-year period between 2011 and 2020 the percentage of rotational falls on starters was reduced by more than 45%. The reduction in horse falls, particularly rotational falls

where the horse somersaults over the fence, potentially causing serious injury to both horse and athlete, is an ongoing goal. By halving the percentage of rotational falls in this 10-year period, we believe we are on the right track and we will continue to take the necessary measures to continue this positive trend. The integrity of our reporting including falls on the flat, in warm up and in jumping has also improved enormously.

What is frangible technology?

Frangible technology is one of the multiple elements of the FEI Eventing Risk Management Action Plan. It is a protective secondary action to limit the consequences of a mistake by horse or athlete at a cross country fence similarly to the way crumple zones work with cars. The current frangible technology is aimed at reducing the likelihood of all horse falls and particularly a rotational horse fall, which has been identified as the type of fall most likely to result in serious injury to horse or athlete.

The FEI introduced the first standard for frangible technology in 2013 with the Transport Research Laboratory (TRL) in Great Britain. The creation of the standard represented a necessary step in order to integrate frangible fence construction technology alongside the traditional cross country fence construction while maintaining the fundamental principles of the cross country test. In 2020, the FEI worked alongside TRL, British Eventing, MIM in Sweden as well as FEI's own expert scientists, Course Designers and Course Builders to produce an updated Frangible Standard to further reduce the risk of horse falls on cross country.

One of the key principles behind the frangible technology is that the technology must not expose athlete or horse to a higher risk of injury than an equivalent current fixed cross-country fence, including when activated. It must have a minimum strength and must have a consistent and repeatable activation performance throughout the competition in order to be fair to all competitors.

Can it stop a rotational fall?

The technology is designed to reduce the chances of all horse falls and particularly a rotational fall when a horse hits a fence.

Why is the FEI making its use mandatory?

The FEI has now made it mandatory at all FEI competitions for fences that can be fitted with frangible technology to be fitted with it. Based on statistics, feedback from Officials and the review of hundreds of videos, there is clear evidence that frangible technology is helping reduce horse falls when an athlete or horse make a mistake. The FEI is also encouraging National Federations, to look at other aspects of risk management, including coaching and course design as there are many mitigating factors and while frangible technology is clearly part of the solution, it is one element in a complex picture.

It is a priority to reduce horse falls as a whole so this is where data collection is an extremely important part of the decision-making process. However, as stated above, FEI statistics show that rotational falls have been reduced by more than 45% in the 10-year period from 2011 - 2020 so there are clear benefits. All horse falls have decreased by 43% from 2011-2020, however 2020 being a COVID year, when comparing 2010 to 2019, the number of horse falls decreased by 12.8%.

More information on the FEI Eventing Risk Management and Action Plan is available [here](#).

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