

Results are from fatality data collected in the Equine Injury Database (EID) from November 1, 2008 – October 31, 2009, on Thoroughbred flat racing recorded at 73 racetracks. Included in the data are horses that suffered a fatal injury during a race and immediately after a race, and those that succumbed to a race-related injury subsequent to race day.

The summary statistics that follow represent estimates of prevalence of fatality, calculated using the fatality data contained in the EID and the related starts data for the same time period, stratified in a number of different ways. These calculations are considered estimates of prevalence because they represent a one-year sample of data and not a complete census. The statistics included here do not imply anything about the relative safety of a racing surface or a horse's age or gender. As the data contained in the EID continues to grow, some of the current statistical conclusions may change as a reflection of increased certainty associated with a larger data set.

A "Confidence Interval" (CI) indicates the likely range of values for each prevalence estimate. Values near to the point estimate are much more likely than values at the end of the range. The 95% CI is generally smaller (i.e. there is more certainty about the estimate) when the sample size is larger (i.e., more starts). Overlap of two 95% CI's for different prevalence estimates indicates that it is unlikely that there is a statistically significant difference between them.

### **Surface Type**

No statistically significant difference in the risk of fatality on different surfaces

Surface	All	Turf	Dirt	Synthetic
Incidence	2.04	1.78	2.14	1.78
95% CI	1.90 – 2.19	1.43 – 2.21	1.97 – 2.32	1.47 – 2.16

### **Mares & Fillies in Open Races**

Females were not at increased risk of fatality when racing against males

	Open	Restricted
Incidence	2.14	1.79
95% CI	0.83 – 5.49	1.59 – 2.0

### **Gender**

Starts made by females were less likely to end in fatality than starts made by intact males

Gender	Colt	Filly	Gelding	Horse	Mare
Incidence	3.18	1.84	1.96	4.06	1.66
95% CI	2.62 – 3.86	1.61 – 2.10	1.76 – 2.18	2.93 – 5.61	1.32 – 2.08

## **Age**

Starts made by 2-year-olds were less likely to end in fatality than starts made by older horses

Year of Birth	1993-2002	2003	2004	2005	2006	2007
Incidence	1.87	1.85	2.59	2.09	1.91	1.36
95% CI	1.46 - 2.39	1.46 - 2.35	2.23 - 3.0	1.83 - 2.38	1.67 - 2.18	0.95 - 1.94

## **Surface Condition**

No statistically significant difference in the incidence of fatality on different surface conditions

### **Turf**

	Firm	Good	Yielding	Soft
Incidence	1.99	1.37	0.54	0
95% CI	1.58 - 2.51	0.72 - 2.61	0.10 - 3.07	0 - 2.75

### **Synthetic**

Fast
1.78
1.47 - 2.16

### **Dirt**

	Fast	Wet Fast	Good	Sloppy	Muddy
Incidence	2.07	2.93	2.13	2.68	1.99
95% CI	1.89 - 2.27	1.68 - 5.12	1.53 - 2.96	2.13 - 3.38	1.34 - 2.96

## **Race Distance (All Surfaces)**

No statistically significant difference in the incidence of fatality in different race distances

	>2F ≤ 4F	>4F ≤ 6F	>6F ≤ 8F	>8F ≤ 10F	>10F ≤ 18F
Incidence	3.09	2.10	2.0	1.91	2.24
95% CI	1.42 - 6.73	1.91 - 2.32	1.75 - 2.27	1.62 - 2.26	0.76 - 6.56

## **Weight Carried**

No statistically significant difference in the incidence of fatality in horses carrying different weights

	≤ 115 lb.	116 ≤ 120 lb.	121 ≤ 125 lb.
Incidence	2.14	1.95	2.17
95% CI	1.74 - 2.63	1.77 - 2.14	1.92 - 2.46