

Racing performance of Thoroughbred horses that had joint abnormalities at 2-year-old in-training sales

Two-year-old in-training sale repository radiographs of carpal, fetlock, stifle, and tarsal joints were reviewed for 953 Thoroughbred racehorses. Subsequent racing performance was compared between horses that had joint abnormalities and horses that did not have joint abnormalities. No radiographic abnormality prevented all affected horses from racing. However, abnormalities of the fetlock joint were most detrimental to racing performance.

Key findings:

- 31% of horses had some joint abnormality identified on pre-sale repository radiographs
- 91% of horses without a joint abnormality raced, and 87% earned money
- 86% of horses with a joint abnormality raced, and 80% earned money
- 3 conditions were associated with lower odds of starting a race and of earning money
 - proximal phalangeal (P1) chip fractures
 - proximal sesamoid bone fractures or inflammation (sesamoiditis)
 - wedge-shaped tarsal bones
- Horses with proximal phalangeal chip fractures had lower lifetime earnings
- Horses that had a faster pre-sale one-furlong work time (<11 s) had more lifetime starts and earnings

This study was made possible by support from the Southern California Equine Foundation, the Center for Equine Health, and the California Racing Safety Program; and the cooperation of Barretts Equine Ltd and The Jockey Club Information Systems. The study was performed at the University of California at Davis.

For more information:

Prevalence of abnormal radiographic findings in 2-year-old Thoroughbreds at in-training sales and associations with racing performance

Dennis M. Meagher, DVM, PhD, DACVS; Julia L. Bromberek, MSPH; Daniel T. Meagher, DVM, MS, DACVS; Ian A. Gardner, BVSc, MPVM, PhD; Sarah M. Puchalski, DVM, DACVR; Susan M. Stover, DVM, PhD, DACVS

J Am Vet Med Assoc 2013;242:969-976