

Auscultation for pre-exercise screening in the horse

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Objective

To describe the highlights of cardiac auscultation of the equine athlete in the context of pre-exercise screening for cardiac adverse event prevention.

Animals

Horses.

Methods

Tutorial description.

Results

Description of the highlights of cardiac auscultation of the equine athlete in the context of pre-exercise screening for cardiac adverse event and exercise-associated sudden death prevention.

Clinical Relevance

Cardiac adverse events and exercise-associated deaths are problems that affect horses' health, riders' safety, and the public perception of welfare during equestrian sports. Screening before participation in sports has helped decrease the incidence of sudden death in humans. We believe auscultation may be a high-yield, low-cost strategy to improve equine welfare and a key component of a prevention program for exercise-associated sudden death in equine athletes. What we describe here highlights that an irregularly irregular rhythm is atrial fibrillation until proven otherwise and is the main target of pre-exercise auscultation. Concerning murmurs are the second target; multiple examples of audio, video, and electrocardiograms are shown.

Keywords: auscultation, exercise-associated sudden death, arrhythmia, murmur, atrial fibrillation

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Disclosures

The authors have nothing to disclose. No AI-assisted technologies were used in the composition of this video or abstract.

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References

1. Navas de Solis C, Durando M, Nath L, Durward-Akhurst S. Exercising electrocardiograms from Thoroughbred racehorses with exercise associated sudden death. *Equine Vet J*. Published online April 21, 2026. doi:10.1002/evj.70166
2. Marr CM. Cardiac murmurs: valvular regurgitation and insufficiency. In: Marr CM, Bowen IM, eds. *Cardiology of the Horse*. 2nd ed. Saunders Elsevier; 2010:193–205. doi:10.1016/B978-0-7020-2817-5.00020-1
3. Navas de Solis C, Keen J, Decloedt A, et al. Response to equine cardiac adverse events during sports. *Equine Vet Educ*. 2026;38(10):556–564. doi:10.1111/eve.70114
4. Navas de Solis C, Mitchell KJ. Cardiovascular emergencies. In: Radcliffe RM, Kopper JJ, eds. *Emergency Triage of the Horse*. Wiley-Blackwell; 2026:255–282. doi:10.1002/9781119817673.ch12