

Understanding Equine Sudden Death



Grayson-funded research is turning uncertainty into answers—and answers into prevention. *Despite advances in equine care, sudden death remains one of the most complex and least understood challenges in horse health.* These rare but devastating events often occur without warning in otherwise healthy horses, leaving veterinarians and owners searching for answers.

Grayson-funded research is working to change that—investigating hidden cardiac abnormalities, identifying risk factors, and developing tools to detect potential issues before they become fatal. While critical unknowns still remain, each discovery brings us closer to prevention.

Understanding Equine Sudden Death - A Critical Frontier in Equine Research

THE CHALLENGE

Sudden death in horses is rare—but when it occurs, it is often unexpected and unexplained. These events can happen during or immediately after exercise, even in horses with no prior signs of illness.

What We Know

- Cardiac-related issues account for approximately half of exercise-associated sudden deaths
- Many horses show underlying heart rhythm irregularities that are not outwardly detectable
- Even with post-mortem evaluation, a significant number of cases remain unexplained

How Grayson-Funded Research Is Making a Difference

- Advancing the use of cardiac monitoring tools to detect risk earlier
- Supporting large-scale studies to identify patterns and risk factors
- Driving collaboration between veterinarians, researchers, and industry leaders
- Moving the field from reaction to prevention

And Why It Matters

Each breakthrough brings us closer to:

- Earlier detection
- Better decision-making
- Safer outcomes for horses across all disciplines



Grayson-Jockey Club
Research Foundation

Grayson has funded the following research working to understand Equine Sudden Death.

Predicting Exercising Arrhythmias With Resting ECGs (2021)

Molly McCue, University of Minnesota

This study used at rest ECGs to identify horses with irregular heart rhythms at exercise that can cause sudden cardiac death (SCD), allowing for increased monitoring and improved understanding of SCD.



Ketodoxapram As A Treatment For Atrial Fibrillation (2024)

Annelies Decloedt, Ghent University

An exploration of Ketodoxapram as a promising novel treatment method for horses with atrial fibrillation.

ECG Findings And Performance In Thoroughbred Racehorses (2026)

Sian Durward-Akhurst, University of Minnesota

This study uses ECGs to improve diagnosis of cardiac related poor performance allowing for increased monitoring to reduce the frequency of exercise-associated sudden death in Thoroughbred racehorses.

