# Transverse navicular bone fracture in a hindlimb of a young Warmblood mare

Tóth et al. (2025), in *Equine Veterinary Education*

**Products**
Computed Tomography (CT) for assessing navicular bone fractures and related soft tissue injuries.

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**Clinical Background**
Navicular bone fractures are uncommon causes of equine foot pain. CT imaging allows detailed assessment of fracture patterns and soft tissue involvement.

**Aim of Study**
To evaluate CT findings and clinical outcomes in horses with navicular bone fractures, focusing on transverse fracture patterns and joint congruency.

**Cohort Study**
CT imaging was performed on a cohort of horses with navicular fractures. The study focused on identifying transverse fractures with displacement, associated DIP joint subluxation, and soft tissue lesions. Cases were managed conservatively, with follow-up evaluations at 6 and 10 months to assess osseous healing and function.

**Results**

- **CT provided superior detail** of fracture comminution and soft tissue injury compared to radiography, highlighting subtle changes missed on plain films.
- **Transverse fractures** exhibited significant **displacement** of navicular fragments, leading to marked **joint incongruity** and altered biomechanics.
- The imaging revealed **intra-articular fragments** and thickening of surrounding soft tissues, indicating a complex injury pattern.
- **Conservative treatment** resulted in partial **osseous healing** at 6 months, with most horses achieving **pasture soundness** by 10 months, although full athletic recovery remained uncertain.

**Summary**

- **CT imaging** is essential for the precise evaluation of navicular fractures, offering a clear depiction of both bone and soft tissue pathology.
- Detailed assessment of **transverse fractures** reveals complexities such as significant displacement and intra-articular debris that critically affect prognosis.
- **Conservative management** can yield acceptable **functional outcomes**, particularly in terms of osseous healing and restoration to pasture soundness.
- However, persistent **joint incongruity** and residual soft tissue injuries may limit future **athletic activity**, underscoring the need for early and targeted intervention.

Link to paper

**Source:** Tóth, P. & Nagy, A. (2025). DOI: 10.1111/eve.14129 in *Equine Veterinary Education*.