**PALMAR DIGITAL NEURECTOMY**

**Uses**

* [Navicular bone fracture](https://www.vetstream.com/equis/Content/Disease/dis00544.asp)    :
  + For horses intended for return to athletic activity, where there is residual lameness after prolonged rest, or after a short rest when prolonged rest period is not possible.
* [Navicular](https://www.vetstream.com/equis/Content/Disease/dis00549.asp) disease :
* Fractures of the palmar process of the distal phalanx.  
  **Contraindications**
* Navicular bones that are excessively osteoporotic with large medullary cyst formation - neurectomies in horses with these may lead to catastrophic failure of the limb with strenuous use.

**Advantages**

* Simple surgical procedure.  
  **Alternative techniques**
* Epineural capping.
* Cryoneurectomy.
* Electrocoagulation.
* Transection.
* Combination of techniques.

**Disadvantages**

* Of no benefit if source of pain involves the dorsal half of the distal digit or does not respond to palmar digital [perineural](https://www.vetstream.com/equis/Content/Technique/teq00145.asp" \o "Forelimb: perineural analgesia) anesthesia [[Hindlimb: perineural analgesia]](https://www.vetstream.com/equis/Content/Technique/teq00339.asp)
* A variety of techniques have been described, all associated with some complications.
* Permanent loss of sensation to the foot could result in inadvertant self trauma.

Numerous techniques have been employed with regard to the actual transection technique when performing a palmar digital neurectomy. In a study that evaluated the long-term outcome of 4 surgical techniques for palmar digital neurectomy (guillotine transection, perineural capping, CO2 laser coagulation, and CO2 laser transection), it was determined that the guillotine method produced less painful neuromas because the nerve was stretched during transection, allowing the proximal nerve stump to withdraw into tissue less affected by surgical trauma. Therefore, we use the guillotine technique to decrease the incidence of painful neuroma formation in conjunction with the stripping technique describe by Black to lengthen the time required for nerve regrowth to optimize the time operated horses remain pain free. Although not necessarily optimal from the standpoint of surgeon comfort, standing neurectomy can nevertheless be performed effectively and without compromise to the patient. In situations where the added cost of general anesthesia prevents palmar digital neurectomy from being considered as a treatment option, or if anesthetic risks preclude general anesthesia as an option, it may be prudent to consider performing the neurectomy in the standing patient.