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| **Palmar Digital Neurectomy** |
| **Indications**  | Generally performed in cases of end stage navicular disease, when all other treatment options have failed. |
| **Procedure**  | Step 1 - Make an incision* Make a 2-3 cm skin incision along the dorsal margin of the superficial digital flexor tendon.
* Locate the ligament of the ergot and preserve it.

Step 2 - Identify nerve* Identify any accessory branches of the nerve and transect.
* Blunt dissect soft tissues under the ligament of the ergot to locate the palmar digital nerve.
* Identify and separate the palmar digital artery.
* Isolate the palmar digital nerve by inserting the tips of hemostats beneath.

 Step 3 - Transect the nerve* Use the 'Guillotine technique' and transect the nerve.
* Place a sterile tongue depressor under the nerve to provide a firmer cutting surface and also to place more traction on the proximal end of the nerve for resection
* Apply a hemostat to the proximal cut end of the nerve.
* Pull the proximal end gently towards the hoof and resect the length of nerve exposed.
* Allow the freshly cut proximal end to retract into soft tissues.

Step 4 - Close soft tissues* Close subcutaneous tissues with a continuous absorbable suture.
* Close skin with non-absorbable interrupted sutures.
* Cover site with sterile dressing and apply pressure bandage.
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| **Postoperative Care**  | * Check that sensation has been lost in the palmar digital area; if not, perform sequential nerve blocks to identify innervation → redo surgery
* Anti-inflammatory, eg phenylbutazone for 4 days.
* Change bandages every 2-3 days, maintain for 2-3 weeks.
* Box rest 2-3 weeks; walking exercise for following 3 weeks.
* Continue care as appropriate for original injury.
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| **Potential Complications**  | * Incomplete transection of nerve and/or accessory nerves.
* Re-innervation of heel → return of lameness → redo neurectomy.
* Neuroma formation - ends of nerve fibers in connective tissue → pain approximately 3-6 months after surgery → lameness, local sensitivity to palpation and swelling at surgical site → repeat neurectomy proximal to neuroma site and take care to protect area post-operatively.
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| **Advantages**  | * Simple surgical procedure.
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| **Disadvantages**  | * Of no benefit if source of pain involves the dorsal half of the distal digit or does not respond to palmar digital perineural anesthesia
* Permanent loss of sensation to the foot could result in inadvertent self-trauma.
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