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| Name of Procedure | Indications | Method | Advantages | Disadvantages |
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| Medial patellar ligament desmotomy | Proximal patellar hesitationUpward patellar fixation | -Performed in standing and sedated horse-Medial patellar ligament is identified along the front and inside aspect of the stifle. Ligament easily palpable in standing horse.-The tissue adjacent to and beneath the medial patellar ligament is aseptically prepared and locally blocked-An incision is made along the medial aspect of the medial patellar ligament. The incision is adjacent and parallel to the ligament-The medial patellar ligament is isolated using a pair of hemostats and partially exteriorized from the incision. Once capture of all ligament fibers is confirmed, the ligament is transected along a horizontal plane. | -This procedure effectively eliminates biomechanical interference associated with the stifle.-Arthritis will result from the surgery but probably won’t “catch up” in horses that are 20+ yrs old-Arthritis resulting from surgery does not significantly affect horses already exhibiting clinical evidence of stifle arthritis. | -Cutting the ligament will destabilize the stifle joint. Arthritis and pain in the joint. More aggressive arthrotherapy may be necessary to maintain performance soundness.-No guarantee the procedure will resolve horse’s lameness-Post operatively, the horse will require 45-60 days off in order to adapt to the ‘New’ stifle function. Training/ showing prohibited during this period.-Fragmentation of the distal aspect of the patellar is a common complication of performing this procedure-Procedure expensive |
| Superior check ligament desmotomy | Tendinitis of the Superficial Digital flexor tendon | The surgical procedure is performed by using a medial approach, with the horse in lateral recumbency without tourniquet application. The horse is then repositioned in the opposite recumbency if the surgery is to be performed bilaterally. The initial incision is made directly over or just cranial to the cephalic vein, and the vein is carefully dissected from the underlying antebrachial fascia and retracted caudally. The cranial approach to the vein is less vascular than the caudal approach, and in most horses the vein penetrating the antebrachial fascia is clamped and ligated. It is important to sever the superior check ligament completely because incomplete division does not allow immediate transfer of load to the muscle and intuitively would promote faster healing of the structure after surgery. In order to sever the ligament completely, it is often necessary to carefully dissect the proximal fibers of the ligament from the nutrient artery and vein. Often the proximal aspect of the carpal canal is penetrated, because the superior check ligament is attached to this structure distally. A small portion of the palmar carpal retinaculum is also incised at the distal aspect of the incision, a procedure that is often accompanied by marked relaxation or release of the SDFT. | -May increase likelihood of horse returning to racing standards | -May predispose horses to desmitis of the suspensory ligament |
| Inferior check ligament desmotomy | Flexural deformity or chronic unilateral laminitis | A 3- to 4-cm skin incision centered at the junction betweenthe proximal and middle one-third of the metacarpal area ismade over the DDFT. The subcutaneous tissue is bluntlyseparated and the paratenon is incised. The flexor tendonsare then identified. Using the medial approach, the neuro-vascular bundle overlying the DDFT and the AL-DDFT isidentified and reflected away from the deep structures.A curved hemostatic forceps is then introduced andadvanced by following the slightly curved surface of theDDFT to the opposite side, where the forceps are spread and turned. The AL-DDFT lying palmar to the tendon iselevated to the level of the skin incision. After the ligamentis positively identified, it is transected sharply with eithera scalpel blade or scissors  | Established technique.Medial or lateral approach.Simple procedure. | May be insufficient for severe flexural deformities, (dorsal hoof angle >90°).Some residual scar tissue may persist that reduces value as a halter horse. |
| Deep digital flexor tenotomy | Chronic laminitis-In severe flexural deformities-stage 1 distal interphalangeal flexural deformities unresponsive to standard treatments.-stage 2 distal interphalangeal flexural deformities.-following or in combination with distal check ligament desmotomy and superior check ligament desmotomy.-Treatment of pedal bone rotation in severe laminitis | Tenotomy is performed on the standing animal using a proximal metacarpal palmar nerve block. A 2-3cm incision is made over the lateral aspect of the deep digital flexor tendon in the middle of the third metacarpal bone. This approach provides good exposure of the tendon and allows the surgeon to perform the procedure quickly and safely. The fascia is separated, and with the limb flexed, the tendon is isolated and brought to the surface of the wound using small curved retractors. The tendon is transected and the wound is closed using a few skin staples. The limb is then bandaged. | -Often a salvage procedure in severe and otherwise unresponsive flexural deformities, although can aid development into sound riding horses in some cases.-Simple procedure-The mid-metacarpal approach avoids invasion of the tendon sheath-the distal approach results in increased level of release of the tendon. | -Often just a salvage procedure.-Causes high levels of post-operative pain which requires prolonged analgesia to control.-variable response-May result in overextension, subluxation of distal interphalangeal joint.-poor cosmetic result. |

*1. Desmotomy of the accessory ligament of the deep digital flexor tendon in horses: An update.A. TnibarJournal of Equine Veterinary Science, 30(12), 715-719, 2010*. Available from: <https://www.researchgate.net/publication/235622564_Desmotomy_of_the_accessory_ligament_of_the_deep_digital_flexor_tendon_in_horses_An_updateA_TnibarJournal_of_Equine_Veterinary_Science_3012_715-719_2010> [accessed Oct 8, 2016].

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[http://www.atlantaequine.com/pages/client\_lib\_mpd.html](http://www.atlantaequine.com/pages/client_lib_mpd.html%203)

[3](http://www.atlantaequine.com/pages/client_lib_mpd.html%203). <http://www.ivis.org/proceedings/aaep/1997/ross.pdf?origin=publication_detail> Surgical Management of Superficial Digital Flexor Tendinitis Michael W. Ross, DVM 1997