

Tendinopathy update

tips for best management

1. Tendinopathy diagnosis can be done with a single finger palpation:

A tendinopathy will have a very localised tenderness to palpation. If the pain distribution is more vague, also consider other structures around the tendon in your diagnosis. These may include paratendon, bursa, or fat pad involvement.

2. isometric exercise & ibuprofen is excellent to reduce pain in an irritable tendon:

Early in a tendon's injury (the initial reactive phase), pain can be settled by performing an isometric exercise (holding a position of muscle contraction, which will vary depending on the affected tendon, for 40-60 secs x 4 reps).² Ibuprofen has also been shown to assist in reducing the cellular response which causes tendon matrix disruption in this early phase (usually < 3months), but will slow the healing response in the later degenerative phase.

3. Strengthening programs have progressed past eccentric training alone:

Loading programs continue to have the best evidence for tendinopathy treatment.⁴ The program should consider the individual's tendon requirements (such as sports & work loads). This means usually progressing past an eccentric loading program, to incorporate concentric, eccentric & plyometric training to simulate the elastic property of the tendon during explosive contraction on the sports field.¹

four stages of a loading program can include:

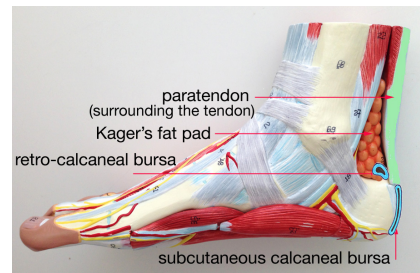
- 1st stage isometric loading for pain relief
- 2nd stage slow heavy resistance training with both concentric & eccentric phases for strength
- 3rd stage faster contractions with lighter loads to give the tendon more sports specific training
- 4th stage plyometric training for power which loads the tendon maximally for adaptation

each program needs be customised for the individual's activity type & intensity levels.

4. injectional therapies show some beneficial effects & can be considered if complete resolution hasn't been achieved with a loading program over > 6 months. Dry needling, PRP, autologous blood, aprotinin, sclerosing & high volume injections have some low quality evidence of benefit.³

Steroid injections can have a short term benefit, but harmful long term effects leading to impaired synthesis of collagen & reduced tendon strength.

Intrasubstance injections should not be used in the reactive phase as it is proposed to disrupt the tendon matrix & lead to tendon dysrepair.



At ocean view physiotherapy we specialise in treating tendinopathies of the lower limb

We are happy to give presentations of the recent evidence on this topic for your clinic. Give us a call if you would like us to visit you

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references:

1. Malliaras P, Barton CJ, Reeves ND, Langberg H. Achilles & patellar tendinopathy loading programmes: a systematic review comparing clinical outcomes and identifying potential mechanisms for effectiveness. *Sports Medicine*. 2013 Apr;43(4):267-86.
2. Staud R, Robinson ME, Price DD. Isometric exercise has opposite effects on central pain mechanisms in fibromyalgia patients compared to normal controls. *Pain*. 2005 Nov;118(1-2):176-84.
3. van Ark M, Zwerver J, vanden Akker-Scheek I. Injection treatments for patellar tendinopathy. *British Journal of Sports Medicine*. 2011 Oct;45(13):1068-76.
4. Silbernagel KG, Brorsson A, Lundberg M. The majority of patients with Achilles tendinopathy recover fully when treated with exercise alone: a 5-year follow-up. *American Journal of Sports Medicine*. 2011 Mar;39(3):607-13.