Fingerprints

HAND THERAPY NEW ZEALAND
Ringaromi Aotearoa

Fingerprints

March 2021

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Editors

Fawwaz Ismail

KIA ORA TĀTOU

greetings all

KO Bukit Timah TE MAUNGA

Bukit Timah is the mountain

KO Kallang TE AWA

Kallang is the river

NŌ Singapura AHAU

I am from Singapore

KO Ismail TŌKU WHĀNAU

Ismail is my family name

KO Fawwaz TŌKU INGOA

My name is Fawwaz [1]

Fun Fact: Singapore is the size of Lake Taupo with a population of 5.8 million. That's urban density for you!

Nico Magni

KIA ORA TĀTOU

greetings all

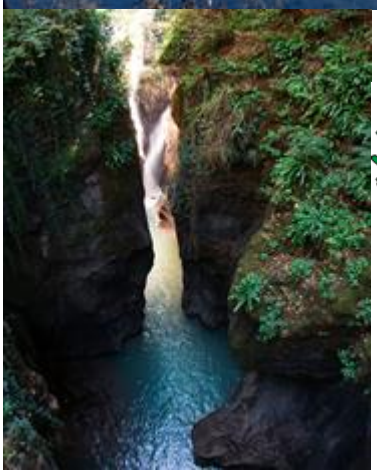
KO RESEGONE TE MAUNGA

Resegone is the mountain

KO PIOVERNA TE AWA

Pioverna is the river

NŌ



ITALIA AHAU

I am from Italy

KO MAGNI TŌKU WHĀNAU

Magni is my family name

KO NICO TŌKU INGOA

My name is Nico[1]

[1] Create your own Pepeha! https://pepeha.nz/

Editors' Note

Kia Ora Colleagues,

Nico and myself are pleased to present the new iteration of Fingerprints. We aim to provide content that is beneficial to the community at large. In order for us to deliver the content that the community seeks, we would appreciate engagement from you in terms of feedback (Compliments to me and improvements to Nico). Ultimately, the success of the publication is a collective one. Teamwork makes the dream work. In addition to feedback, we encourage our readers to submit content which will further improve the quality of the journal.

Fingerprints will be published quarterly. Contact your dynamic duo at fingerprints@handtherapy.org.nz.

Novel forces - Climbing injuries

By Nick Taylor

Global interest in rock climbing continues to rise. Its inclusion in the 2020 Tokyo Olympics has further energised the competitive climbing scene, and the mainstream release of the films The Dawn Wall and Free Solo have fuelled public curiosity. In New Zealand new indoor climbing facilities have opened in Auckland and Christchurch in the last 12 months bringing us closer to international standards, and there are an increasing number of domestic competitions for climbers of all ages and levels. At the elite level we have climbers engaging in intensive training regimes and competing on the international stage.

Climbing at a high level generates unique stressors for the fingers. The precise loading depends on the particular grip type being employed, with the phalanges and supporting soft-tissue structures subjected to a variety of novel forces (Schweizer & Hudek, 2011; Schweizer, 2009). Given sufficient time and appropriate progression of loading impressive physiological adaptation results, including cortical thickening and hypertrophy of the flexor tendons and pulley ligaments (Bollen & Wright, 1994; Klauser et al., 2000). However, even in a well-trained athlete overload and failure of these structures can occur. This article addresses three of the most common hand injuries that climbers sustain, and provides brief guidelines on diagnosis and management.

Growth plate fractures

Climbing is especially popular among adolescents, in whom favourable strength-to-weight ratio and general flexibility allow rapid progression up the grades. Youth climbers now routinely compete alongside adults at the highest level, attempting demanding routes involving small holds and dynamic movements. The primary concern here is that if the phalangeal growth plates are yet to close there is risk of failure of the physis under the high loads and external social pressure of the competition environment.

Growth plate fractures of the fingers are now the most common injuries experienced by youth climbers, with data suggesting that the incidence of these has risen precipitously in the last two decades (Schöffl, Popp, Küpper, Schöffl, 2015; Schöffl & Schöffl, 2016). By far the most common bone affected is the middle phalanx of the middle finger, and the fracture pattern is typically Salter Harris III (Schöffl & Schöffl, 2016). These injuries tend to occur during the growth spurt phase that precedes growth plate closure: 10-14 for girls, 12-16 for boys (Schöffl & Schöffl, 2016). Onset is generally not traumatic, although the patient may associate a particular move during a climb with inception of pain (Schöffl & Schöffl, 2016). The aetiology rather is that of a fatigue fracture, with repetitive loading leading to an initial stress reaction that can progress to a stress fracture if not adequately rested (Schöffl & Schöffl, 2016).

Regular use of the crimp grip is thought to contribute to these injuries (Schöffl & Schöffl, 2016). The crimp is a climbing specific grip type that involves contact with the distal phalanx pulp only, hyperextension of the DIP joints, flexion of the PIP joints to 90 degrees or more, and mild flexion of the MCP joints.

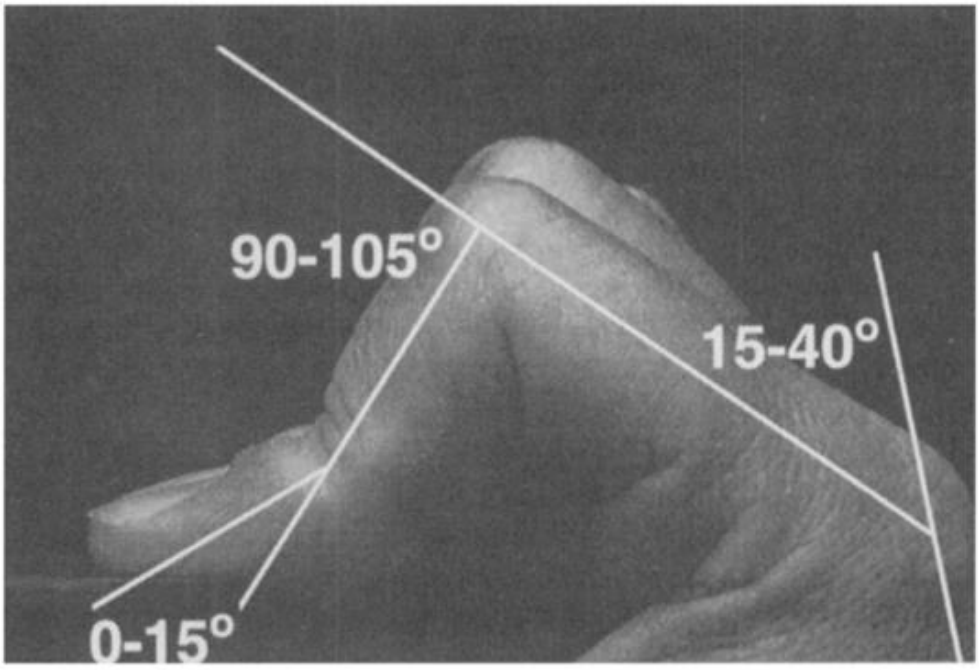


Figure 1. The crimp grip. Reprinted from “Pathomechanics of Closed Rupture of the Flexor Tendon Pulleys in Rock Climbers”, by R. Marco, N. Sharkey, T. Smith et al., 1998, The Journal of Bone and Joint Surgery, 80(7), p. 1013.

The rationale behind this position is that increased PIP joint flexion results in increased friction between the flexor tendons and the pulley ligaments and an increased moment arm for flexor digitorum profundis (FDP) (Schweizer, 2000). For a youth climber this grip can result in uneven compressive forces at the middle phalanx growth plate that when used too frequently can result in failure (Schöffl & Schöffl, 2016). It follows that youth climbers should be encouraged to minimise use of the crimp.

The hallmark clinical symptom for this injury is maximal tenderness on palpation at the base of the middle phalanx dorsally (Bärtschi, Scheibler, & Schweizer, 2019). Any youth climber with this presentation should be treated with high suspicion of a growth plate fracture. X-rays are first-line imaging and must include an oblique projection as these fractures often run in an oblique plane, and can be missed on a pure lateral view (Bärtschi et al., 2019). Plain films may be unremarkable in the case of a stress reaction, and dependent on the context, referral to a specialist for consideration of CT or MRI may be appropriate.

For both confirmed fractures and suspected stress reactions it is necessary to remove the climber from sporting activities. There is evidence to suggest that permitting climbing in the presence of this hallmark tenderness, even with an unremarkable X-ray, places the climber at high risk of developing a growth plate fracture (Bärtschi et al., 2019).

Figure 2 is an X-ray series demonstrating this scenario, with tenderness present at the first appointment yet the climber continued to train.

Figure 2. Development and healing of a growth plate fracture. Reprinted from “Symptomatic epiphyseal sprains and stress fractures of the finger phalanges in adolescent sport climbers”, by N. Bärtschi, A. Scheibler, and A. Schweizer, 2019, Hand Surgery and Rehabilitation, 38(4), p. 252.

A graduated return to sporting activities is commenced once radiological union and resolution of symptoms have been achieved. Referral to a hand therapist for fabrication of a thermoplastic splint for wear in the interim should be considered.

Pulley Ligament Injuries

The pulley ligaments are the most commonly implicated structures in adult climbing injuries and range in severity from sprains to multiple ruptures (Schöffl, Popp, Küpper, & Schöffl, 2015). The most frequently injured ligaments are the A2 and A4 pulleys of the middle and ring fingers (Schöffl & Hochholzer, 2003). The typical mechanism is a sudden overload in the crimp position caused by a foot unexpectedly slipping off a hold (Schöffl & Hochholzer, 2003). With a full rupture there may be an audible 'snap' that can be heard at some distance. Diagnosis is based on subjective history and maximal tenderness on palpation being present over the affected ligament. Loading in the crimp position will reproduce pain, whereas loading in other positions is often relatively comfortable.

Ultrasound is both sensitive and specific when it comes to grading the injury, with 2mm tendon-bone distance the threshold for differentiating partial from full ruptures (Klauser et al., 2002). The ultrasound assessment should be performed with the finger in resisted flexion. Partial tears and single pulley ruptures typically do well when managed conservatively, multi-pulley ruptures need surgical review (Schöffl & Schöffl, 2006).

Climbers can generally continue to train and climb with a partial tear albeit with modification. Crimping is completely avoided, as are sharp holds that may press directly on the injured tissue. Further modifications depend on the level and short-term goals of the climber but may involve substituting traversing for time on routes, reducing climbing grade, and limiting dynamic movements. Any position that generates pain should be meticulously avoided.

Custom thermoplastic splinting forms the mainstay of conservative treatment for single ruptures with a pulley protection ring preventing direct compression of the healing pulley and excessive tensile loading (Schneeberger & Schweizer, 2016) . Continuous wearing of the splint and cessation of climbing activities for 6 weeks is recommended. Graduated loading on the finger is then reintroduced with continuing avoidance of the crimp position until pain free, which may take several months.

Figure 3. Thermoplastic pulley ring splint. Reprinted from “Pulley Ruptures in Rock Climbers: Outcome of Conservative Treatment with the Pulley-Protection Splint - A Series of 47 Cases”, by M. Schneeberger and A. Schweizer, 2016, Wilderness and Environmental Medicine, 27(2), p. 212.

Lumbrical Tears

Pocket holds are commonly encountered at higher grades and pose a unique risk to the intrinsic muscles of the hand. If the fingers adjacent to the loaded ones are actively flexed down into the palm, a sudden foot slip can result in the engaged fingers slipping into extension, creating a shear force through either the third or fourth lumbricals (Schweizer, 2003). These muscles are bipennate with dual origins in adjacent FDP tendons, and this shear force can result in tearing of muscle fibres.

The climber will experience a sudden sharp pain in the palm, and will be unable to engage in the same type of pocket again without discomfort (Schweizer, 2003). Clinically there may be tenderness on palpation at the injury location in the palm, with ultrasound confirming

hematoma or tenosynovitis of the adjacent flexor tendons in more severe instances (Lutter, Schweizer, Schöffl, Römer & Bayer, 2018). Pain is easily reproduced by having the patient actively flex the adjacent fingers and passively extending the affected one (Lutter et al., 2018).

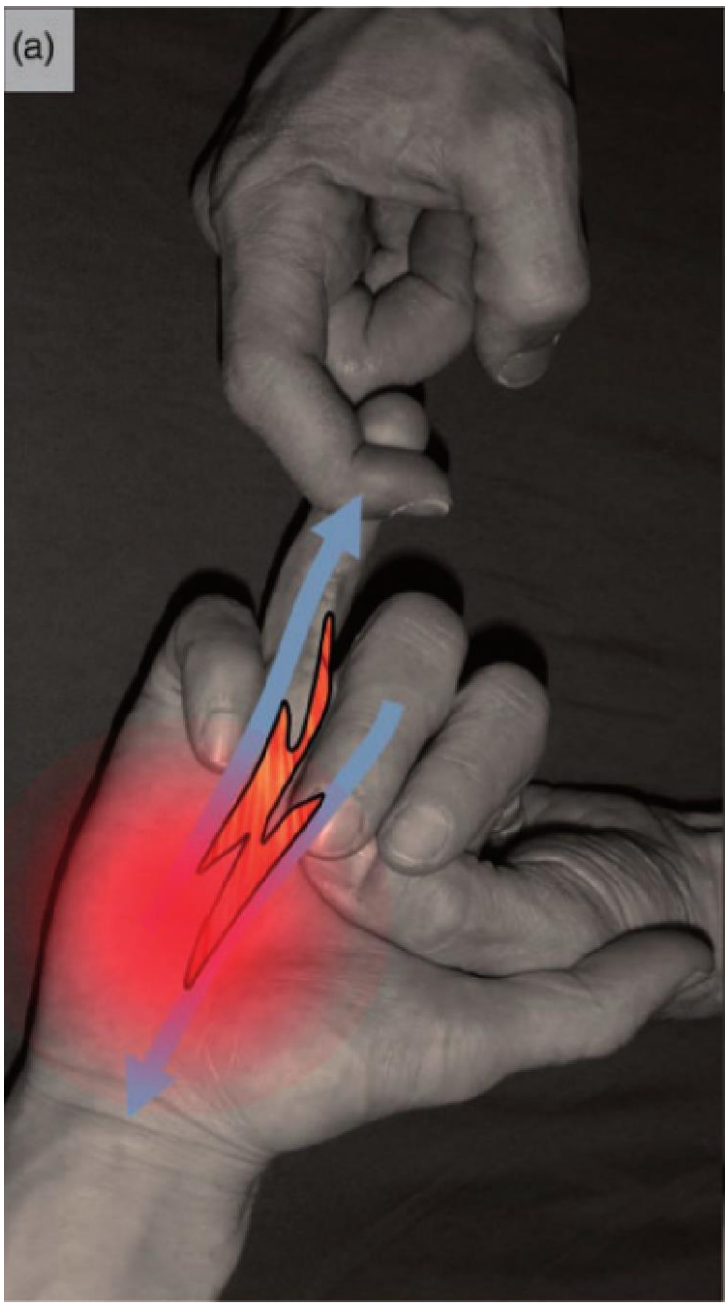


Figure 4. Provocative test for lumbrical tear. Reprinted from “Lumbrical muscle tear: clinical presentation, imaging findings and outcome” by C. Lutter, A. Schweizer, V. Schöffl, F. Römer and T. Bayer, 2018, Journal of Hand Surgery: European Volume, 43(7), p. 769.

For more severe cases two weeks of immobilisation may be necessary, otherwise as long as the injury position is avoided climbing may continue and is generally pain-free (Lutter et al., 2018). Practically this is achieved by buddy taping the small and ring fingers together in the case of 4th lumbrical tears, and the middle and ring fingers for 3rd lumbrical tears. Stretching prevents restrictive scar tissue forming and consists initially of the intrinsic minus position, progressing to gentle stretching in the provocation position pictured in Figure 4 (Lutter et al., 2018).

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A2 pulley injury, what to do?

A synopsis from HandyEvidence created by Nico Magni

A potential classification schema and management approach for individuals with A2 flexor pulley strain. Cooper, C. and P. LaStayo (2020).

Level of Evidence: 5

Follow recommendation: 👍

Type of study: Therapeutic

Topic: A2 pulley injury - Assessment and treatment

This is an expert opinion article on assessment and treatment of A2 pulley injury. These injuries are very common in rock climbers and they do occur most often while crimping (see picture below). The classification suggested in this article (i.e. severe, moderate, and mild - see table below) is based on assessment of pain, active range of movement, resisted tests, and palpation. According to this classification system, severe pulley injury should be immobilised except for gentle active range of movement exercises and climbing training should be significantly modified. A mild injury should be managed with progressive resistance training and hang board training (avoiding crimping). With a moderate injury, the routine would be similar to a mild injury, however, the intensity would be lower. Additionally, H tape and pulley orthoses may be utilised to control symptoms in adjunct to climbing volume modification.

Clinical Take Home Message: Based on what we know today, we may decide to classify A2 pulley injuries according to the assessment procedures described in this article. The only issue with a symptomatic driven assessment is that several factors can increase or decrease pain intensity independently of tissue damage (see the overuse injury and fracture TOP synopses). Triangulation of clinical presentation with investigations such as ultrasound and x-ray may help in the differential diagnosis (e.g. stress fractures) and may provide a more objective assessment of tissue damage (if any). If you are interested in other climbing injuries, see this previous synopsis.

URL: https://doi.org/10.1016/j.jht.2019.01.002

Poster 1: Serial casting for fixed flexion deformity (by Becky Sheehy)

Serial Casting in the Treatment of Fixed Flexion Deformities of the Proximal Interphalangeal Joint

BECKY SHEEHY

HAND AND UPPER LIMB THERAPY PAPER 2020

Figure 1. *Note.* Plaster of Paris finger cast. From "Posttraumatic proximal interphalangeal joint flexion contractures", by C.J. Hogan and J.A. Nunley, 2006, *Journal of the American Academy of Orthopaedic Surgeons, 14*, p. 530. Copyright 2006 The American Academy of Orthopaedic Surgeons published by Wolters Kluwer Health, Inc.

Figure 2 *Note.* Orficast finger cast with distal interphalangeal joint free allowing flexion. From "Therapy concepts for the proximal interphalangeal joint", by N.P. Douglass and A.L. Ladd, 2018, *Hand Clin, 34*, p. 294. https://doi.org/10.1016/j.hcl.2018.01.001 Copyright 2018 Elsevier Inc.

Figure 3 *Note.* X-ray demonstrating little finger flexion deformity resulting from camptodactyly. From "Camptodactyly", by A. Favril and Y. Weerakkody. https://radiopaedia.org/articles/camptodactyly. Copyright Radiopaedia.org 2005-2020

Figure 4 *Note.* The action of shaking hands can be challenging with a flexion deformity of the proximal interphalangeal joint, by Cyton Photography. https://www.pexels.com/search/hand%20shake/

Figure 5 *Note.* Finger cast removal with a scissors using a z line. From "Effect of Total End Range Time on Improving Passive Range of Motion", by K.R. Flowers and P.C. LaStayo, 2012, *Journal of Hand Therapy, 25*, p. 49. Copyright 2012 Hanley & Belfus published by Elsevier Inc.

ANATOMY

- The proximal interphalangeal joint (PIPJ) is a ginglymus joint boxed by periarticular soft tissue and stabilized by tendons (Figure 6) (Hogan & Nunley, 2006; Tuffaha & Lee, 2018)
- The PIPJ accounts for 85% of the total motion of the digit (Hogan & Nunley, 2006; Tuffaha & Lee, 2018; Valdes et al., 2019; Young et al., 2018)
- Normal motion of the PIPJ requires osseous stability, congruent articular surfaces, competent periarticular capsuloligamentous and tendinous structures, integrity of the musculotendinous unit, pliable skin and sensibility (Cantero-Téllez et al., 2015; Hogan & Nunley, 2006; Tuffaha & Lee, 2018; Valdes et al., 2019; Young et al., 2018)
- PIPJs are uniquely susceptible to injury and are inclined to become stiff shortly after trauma or immobilization (Farzad et al., 2019; Glasgow & Peters, 2016; Young et al., 2018)

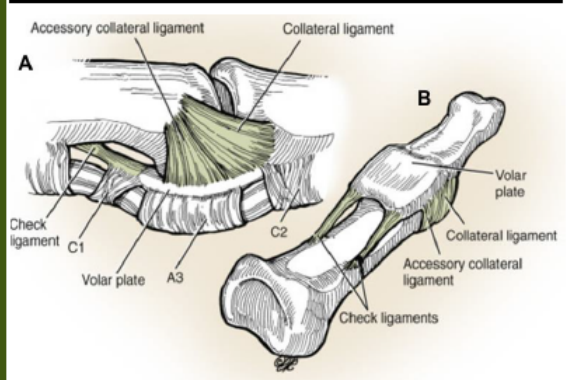


Figure 6 *Note.* Illustration of PIPJ anatomy. From "Treatment of Proximal Interphalangeal Joint Contracture", by S.H. Tuffaha and A. Lee, 2018, *Hand Clin, 34*, p. 230. https://doi.org/10.1016/j.hcl.2017.12.012 Copyright 2018 Elsevier Inc.

FIXED FLEXION DEFORMITY

- The clinical presentation of a PIPJ fixed flexion deformity (FFD) typically demonstrates an extension deficit, however, a loss of both flexion and extension range of motion (ROM) may be observed (Colditz, 2000; Glasgow & Peters, 2016; Young et al., 2018)
- The aetiology may be traumatic e.g. burns, fracture, lacerations or non-traumatic e.g. rheumatoid arthritis, Dupuytren's disease (Boccolari & Tocco, 2009; Cantero-Téllez et al., 2015; Douglass & Ladd, 2018; Glasgow & Peters, 2016; Tuffaha & Lee, 2018; Valdes et al., 2019)
- PIPJ FFDs can lead to lost convergence of the digit towards the scaphoid, impeded prehension and are considered unsightly (Cantero-Téllez et al., 2015; Hogan & Nunley, 2006; Uğurlu & Özdoğan, 2016; Valdes et al., 2019)
- Functional limitations include inability to grasp objects, shake hands, put on gloves, wash one's face and place the hand in a pocket (Hogan & Nunley, 2006; Uğurlu & Özdoğan, 2016; Young et al., 2018)

Figure 7 *Note. FFD of the PIPJ can impact on wearing gloves* . Adapted from *Life with Dupuytren's.* https://www.webmd.com/arthritis/ss/slideshow-treatment Copyright 2005-2020 WebMD LLD

ORTHOTIC TREATMENT PRINCIPLES

- Stress relaxation takes place through application of prolonged, low-load tension causing soft tissues to lengthen and grow (Bell-Krotoski & Figarola,1995; Flowers, 2002; Kaplan, 2010)
- Elongated tissue will shorten again once tension is removed, returning to pre-stretch length, unless the total end range time (TERT) under tension is such that permanent, plastic deformation occurs (Farzad et al., 2019; Flowers, 2002; Kaplan, 2010; McClure et al., 1994; Uğurlu & Özdoğan, 2016)
- Gains in passive ROM have been shown to be directly proportional to TERT (Flowers & LaStayo, 2012)
- Serial casting is considered a safe and effective way of remodelling soft tissue to regain passive extension of a PIPJ with a FFD, by applying continuous, low-load tension (Figure 8) (Bell-Krotoski & Figarola, 1995; Schultz, 2020)

Figure 8 *Note.* Finger serial casts. From "Effects of Serial Casting in the Treatment of Flexion Contractures of the PIPJ in patients with rheumatoid arthritis and juvenile idiopathic arthritis: A Retrospective Study", by U. Uğurlu and H. Özdoğan, 2016, *Journal of Hand Therapy, 29*, p. 44. Copyright 2016 Hanley & Belfus published by Elsevier Inc.

ASSESSMENTS OF FFD TO DECIPHER ORTHOTIC OF CHOICE

END FEEL (Figure 9) (Hogan & Nunley, 2006; McClure et al., 1994)	The therapist passively stretches the joint to the end of its available range and perceives the sensation of restricted range being encountered as: • Non-springy/firm/capsular end feel • Springy/soft/non-capsular end feel
DEGREE OF CONTRACTURE (Colditz, 2000; Schultz, 2020; Tocco et al., 2016; Uğurlu & Özdoğan, 2016)	▪ Passive and active ROM measures ▪ Length of time FFD present ▪ Extrinsic structures intact ▪ Muscle-soft tissue imbalance ▪ Bone-cartilage abnormality ▪ Neurological contributions
TORQUE ANGLE CURVE (Figure 10) (Flowers, 2002)	Constructed by passively moving a joint through its available range and plotting a series of goniometric readings with gradually increasing force being applied to the joint e.g. 20° at 200g of force • A gentle slope indicates compliant tissue • A steep slope indicates significant stiffness and less tissue compliance
THE MODIFIED WEEKS TEST (Flowers, 2002)	A change in joint passive ROM is calculated by measuring the difference between a 'cold reading' and a 'pre-conditioned reading' after therapeutic treatment The gain in passive ROM is an indicator of tissue compliance or stiffness • The interpretation of scores for orthotic of choice is demonstrated in Figure 11

Figure 9 *Note.* Testing end feel. From " Posttraumatic PIPJ Flexion Contractures", by C.J. Hogan and J.A. Nunley, 2006, *Journal of American Academy of Orthopaedic Surgeons, 14*, p.525. Copyright 2006 The American Academy of Orthopaedic Surgeons published by Wolters Kluwer Health, Inc.

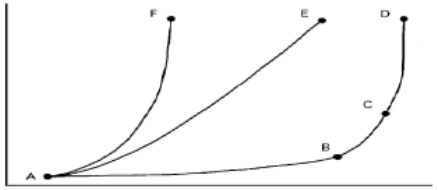


Figure 10 *Note.* Torque angle curve. From "A Proposed Decision Hierarchy for Splinting the Stiff Joint, with an Emphasis on Force Application Parameters", by K.R. Flowers, 2002, *Journal of Hand Therapy, 15*, p. 159. Copyright 2002 Elsevier Inc.

PROM Increase	*Splinting*
About 20°	No splint
About 15°	Static splint
About 10°	Dynamic splint
About 0°–5°	Static progressive splint

Figure 11 *Note.* Guidelines for interpretation of the modified weeks test. From "A Proposed Decision Hierarchy for Splinting the Stiff Joint, with an Emphasis on Force Application Parameters", by K.R. Flowers, 2002, *Journal of Hand Therapy, 15*, p. 161. Copyright 2002 Elsevier Inc.

CASTING IS CONTRAINDICATED IN THE PRESENCE OF:

- Acute inflammation
- Active infection
- Healing or unstable structures
- Other health conditions e.g. pre-operative Dupuytren's disease, heterotrophic ossification

(McClure et al., 1994; Schultz, 2020)

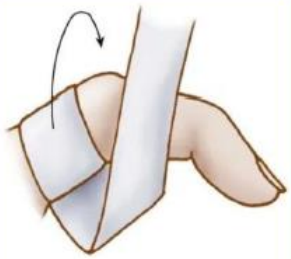
BENEFITS OF CASTING	DISADVANTAGES OF CASTING
▪ Maximum TERT ▪ Circumferential pressure ▪ Less invasive future surgery ▪ Easy to fabricate ▪ Benefits of materials ▪ Gains in PIPJ flexion ▪ Provides rest ▪ Can be used in all stages of healing ▪ Can be used when pain, oedema and sensory impairment are present ▪ Custom-fit ▪ Can be used for extreme FFD angles	▪ Risks associated with incorrect application ▪ Bulky ▪ Frequency of cast changes required ▪ Risks of immobilization ▪ Compensatory movements ▪ Increased forces and angular demands on neighbouring joints ▪ Difficulty treating multiple adjacent digits ▪ Impact on function ▪ Non-removable ▪ Not easily adjusted

(Bell-Krotoski & Figarola, 1995; Boccolari & Tocco, 2009; Colditz, 2000; Douglass & Ladd, 2018; Farzad et al., 2019; Flowers & LaStayo, 2012; Hogan & Nunley, 2006; Schultz, 2020; Tocco et al., 2016; Tuffaha & Lee, 2018; Uğurlu & Özdoğan, 2016; Young et al., 2018)

ASSESSMENT & DECISION MAKING

STANDARD METHOD

- Applying a serial cast involves circumferentially wrapping casting material around the involved digit(s) with the PIPJ positioned in maximally tolerated extension (Figure 12)
- When applying force the patient should sense a stretch but not pain (Bell-Krotoski & Figarola, 1995; Douglass & Ladd, 2018; Schultz, 2020)
- Frequency of cast changes can vary from every 2-3 days to once weekly (Bell-Krotoski & Figarola, 1995; Schultz, 2020; Tocco et al., 2016; Uğurlu & Özdoğan, 2016)
- Performing ROM exercises at time of cast change can help to maintain cartilage health and prevent loss of flexion, however, there is a risk that it may reverse extension gains and prolong treatment duration (Bell-Krotoski & Figarola, 1995; Farzad et al., 2019; Schultz, 2020; Uğurlu & Özdoğan, 2016)
- A variety of casting materials are available including Orficast (Figure 13), Quickcast (Figure 15) and plaster of Paris (Figure 14)
- Plaster of Paris is widely known for its conforming, porous, low cost and skin friendly properties (Bell-Krotoski & Figarola, 1995; Boccolari & Tocco, 2009; Colditz, 2000; Farzad et al., 2019; Schultz, 2020; Tocco et al., 2016; Uğurlu & Özdoğan, 2016)
- Casting should continue until there is a plateau in passive ROM gain over 3 consecutive cast changes or 1 month (Schultz, 2020; Tocco et al., 2016; Uğurlu & Özdoğan, 2016)
- The weaning process consists of a slow introduction of PIPJ flexion and function while closely monitoring for PIPJ extension lag. Use of a 'retainer' extension splint is suggested (Boccolari & Tocco, 2009; Glasgow, et al., 2012; Schultz, 2020; Tocco et al., 2016; Uğurlu & Özdoğan, 2016)



- Figure 12 Left *Note*. Wrapping cast material. Adapted from *Rehabilitation of the Hand and Upper Extremity* (7th ed. p. 1526), by K.S. Schultz, 2020, Elsevier Inc. Copyright 2020 Elsevier Inc.
- Figure 13 Right *Note*. Orficast. From "Extension Orthoses and the Stiff PIPJ following Hand Trauma: A Review of Current Clinical Practice in the Australian Context", by C. Glasgow and S. Peters, 2016. *Hand Therapy, 21*(3), p. 78. Copyright 2016 The British Association of Hand Therapists Ltd.

VARIATIONS

- Colditz (1995) proposes the addition of distal and proximal pieces of material to increase the lever arms during fabrication of a cast. This alleviates pressure over the vulnerable skin at the dorsum of the PIPJ (Figure 14) (Colditz, 2000; Colditz, 1995)
- Inclusion of a distal interphalangeal joint (DIPJ) dorsal block can assist in positioning of this joint if required e.g. in the case of Boutonniere deformity. The finger pad is left free and the DIPJ can flex (Figure 16) (Boccolari & Tocco, 2009; Colditz 2000; Schultz, 2020; Tocco et al., 2016)

Figure 14 *Note*. Modified casting fabrication with plaster of Paris. From "Modification of the Digital Seral Plaster Casting Technique", by J.C. Colditz and A. Schneider, 1995, *Journal of Hand Therapy, 8*, p. 216. Copyright 2020 Bracelab

- Figure 15 Left *Note*. Quickcast. From "The Stiff Finger" by T.D. Kaplan, 2010. *Hand Clin, 26*, p. 196. https://doi.org/10.1016/j.hcl.2010.02.001 Copyright 2010 Elsevier
- Figure 16 Right *Note*. Cast with Dorsal Block Included. Adapted from Rehabilitation of the Hand and Upper Extremity (7th ed. p. 1527), by K.S. Schultz, 2020, Elsevier Inc. Copyright 2020 Elsevier Inc.

Educational opportunities

Below are a series of resources for educational purposes that the educational committee and us have identified in the last period:

Hand Rehabilitation Foundation

This Foundation holds several events every year and the next conference is coming up towards the end of March. For further information access their website.

Hand Therapy New Zealand Conference 2021

The conference theme is “Tendonitis and Tendinopathy”. Lock in the dates from the 3rd to the 5th of September (Dunedin). If you want to submit an abstract, you can do so at this link.

Keeping Connected Webinars

These are webinars on a series of different topics related to Hand Therapy run by Hands On. Keep an eye on your emails as we periodically receive invitations to register to these webinars through emails from HTNZ administration.

handSPARK

HandSPARK has provided HTNZ with a free webinar on anatomy, treatment, and post-surgical guidelines for clients with thumb cmcj OA. You can access this resource at this link.

The International Federation of Societies for Hand Therapy (IFSHT)

This organisation provides some resources related to Hand Therapy and technologies applicable (e.g. apps) to hand therapy. Have a look at their resource page.

HandyEvidence

Nico's website reviews and assesses three clinically relevant scientific articles on Hand Therapy every week. In addition, it contains a database of over 150 previous synopses searchable by topic and level of evidence. It has been sponsored by HTNZ in 2021 for all the New Zealand Hand Therapists. Get the one week free subscription and Nico will grant you full access.

Consent for clients' information and images

HAND THERAPY NEW ZEALAND
Ringaromi Aotearoa

Consent form – use of clinical case information and images

I, (*patient's name:* _____) consent to the use of information and images including photographs or videos from my hand therapy assessment and treatment to be used for (*mark agreement by clicking on box or print and tick*)

- ☐ Educating clinicians relevant to hand therapy
- ☐ Educating clinical students
- ☐ Service audit
- ☐ Publication in professional or scientific journal

I understand that the information and images will not have my name attached to them and will not obviously identify me in any way.

Patient Details:

Name: _____ Tel: _____

Email: _____

Signed: _____ Date: Click or tap to enter a date.

Clinician Details:

Name: _____ Tel: _____

Email: _____

Organisation: _____

Hand Therapy New Zealand membership ☐Full ☐Associate Membership No. _____

Signed: _____ Date: Click or tap to enter a date.

Consent form case study final 15/02/2021

You can download the original document on HTNZ webpage.