



Auckland Spinal Rehabilitation Unit

Education initiatives and Upper Limb Reconstructive Surgery

Maree Walters, Advanced Clinician Physiotherapist, ASRU

Objectives:

- Brief outline of SCI in NZ & ASRU service
- Overview of our education programmes
- Description of our Tetraplegic Upper Limb Surgery service
- An Outpatient Initiative



Spinal Cord Injury (SCI) in NZ

In New Zealand, there are just over 200 new SCIs each year: an average of four every week

There are approx 6000 people living with SCI in the community in NZ

NZSCI Registry-

www.nzspinaltrust.org.nz/i-need-information/new-zealand-spinal-cord-injury-registry-nzscir/

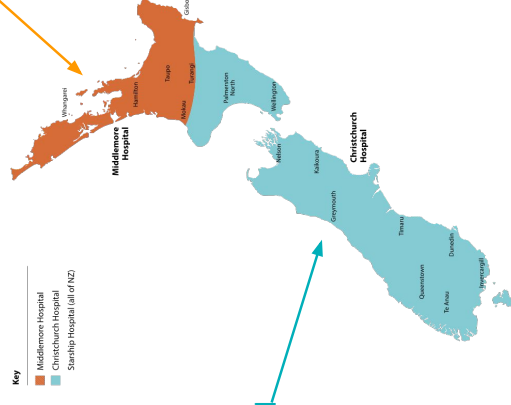
Spinal Cord Injury (SCI) in NZ



NZ Spinal Cord Injury Registry
Te Rāhita Whāra Aho Tūāwhiri ā-Motu

2 SCI Rehab units in NZ

Spinal Cord Injury Destination Policy
Catchment Area Boundaries



Burwood Spinal Unit

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Waitaha Canterbury

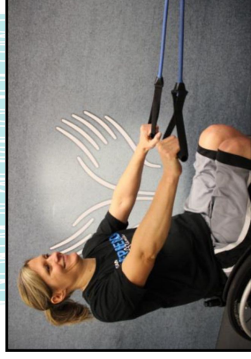
Auckland Spinal Rehabilitation Unit



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Health New Zealand
Counties Manukau

ASRU services:

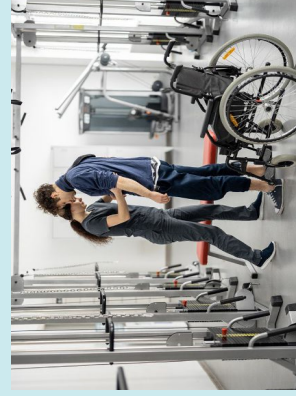
- 20 Bed Inpatient rehab ward - full MDT team
 - Average length of stay 10 weeks
- Acute service at Middlemore Hospital - Ward 11
 - Acute Spinal Hub - Acute SMO, Inpatient admissions co-ordinator / nurse
- Outpatient service - approx 3000 people w SCI
 - Team Assessments - 1.5 hour apt SMO, PT, OT & Nurse
 - Medical Clinic
 - Spasticity Clinic - SMO & PT / OT
 - TULS Upper Limb Surgery Service
 - Urology clinics - SMO & Nurse
 - Allied Health Service - ACC & MOH



How can WE best support those who live with Spinal Cord Injury ?

Education !!!

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• Education of People living with SCI

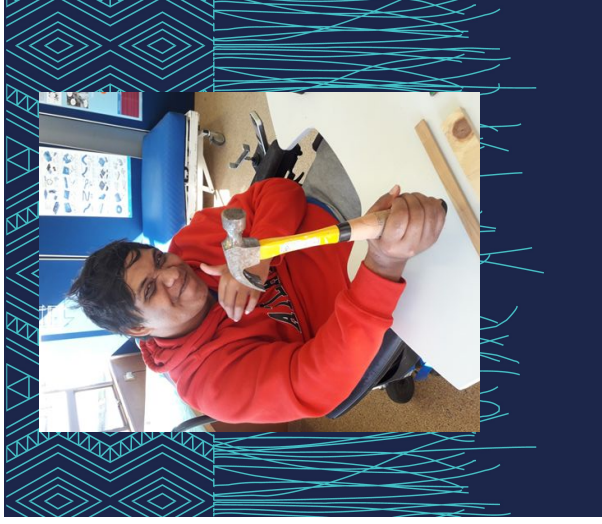
• Education of those caring for them

Nāu te rourou, nāku te rourou ka ora ai te iwi

– with your basket and my basket the people will thrive

ASRU initiatives to educate people with SCI, community health professionals and carers

- SCI Education for those with a new SCI & Whanau - "Spinal 101"
- SCI Study Days for Counties Staff
- SCI Workshop for Community HP
- SCI workshop for Carers / Support workers



- Upper Limb Surgery Education for patients
- Upper Limb Surgery Service Education for Health Professionals

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Tetraplegic Upper Limb Surgery



ASRU TULS

SCI Upper Limb surgery prior to 2015

- Upper limb reconstructive surgery 1st described in 1970's
- Performed in NZ for more than 4 decades
- Until 2015, all upper limb surgeries undertaken in CGH at Burwood

ASRU TULS Service - established in 2015

- Collaborative service between Orthopaedic surgeons, ASRU Rehab Consultants & ASRU Allied Health clinicians
- First surgery performed in Sept 2015

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ASRU stats

TROIDS
12 patients have had TROID surgery
10 of these bilateral

93 surgeries to date
approx 6 surgical
dates/year
8 weekly full day
TULS clinic at ASRU

SPIN
24 patients had SPIN surgeries
15 of these bilateral

Grip reconstruction
24 patients had grip surgeries
9 of these nerve (AIN)



Tetraplegic Upper Limb Surgical (TULS) Service at ASRU

- 2018 Identified need to have more educational materials for patients - Patient education handouts
- 2020 Identified need to educate community providers more
- 2020/21 COVID Lockdowns - collaboratively wrote presentation to present online to community health professionals



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The Auckland Spinal Rehabilitation Unit invites you to: Tetraplegic Upper Limb Surgery Workshop

If you are a community physiotherapist, occupational therapist, nurse or ACC member who works with clients with SCI, then this ONLINE course is for you!

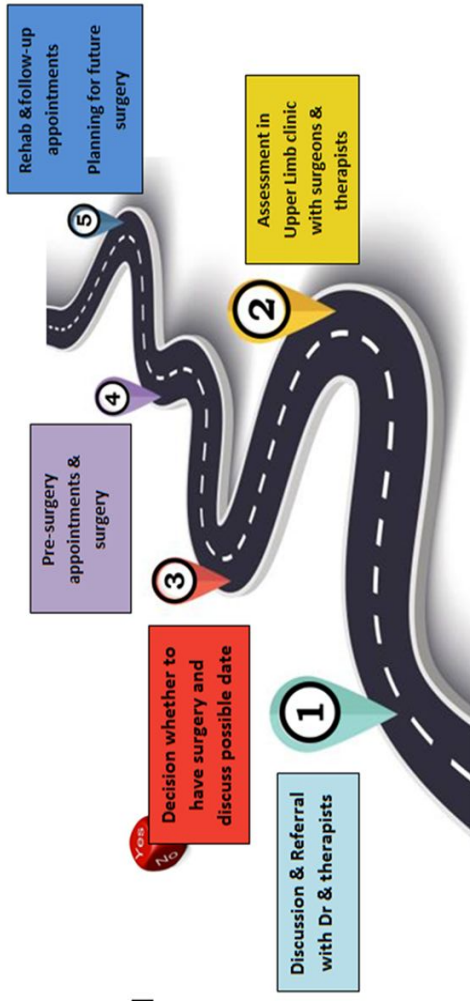
4 hour ONLINE Zoom workshop spread over 2 days
30th and 31st August 2023, 9 - 11am
(must attend to both days)

- Session 1 outline:
- Overview of ASRU TULS Service
 - Upper Limb Surgery Pathway
 - Tendon surgeries
 - Q & A
- Session 2 outline:
- Nerve surgery
 - Patient interview
 - Linking with the community
 - Q & A
- Price: \$100
Get your tickets here:
<https://www.eventbrite.co.nz/e/tetraplegic-upper-limb-surgery-workshop-tickets-662647876637>

For enquiries contact: Maree.Walters@middlemore.co.nz

Counties Manukau Health Members register free through Employee Kiosk

Patient Journey with TULS



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What are the surgical options?

Tendon transfers:

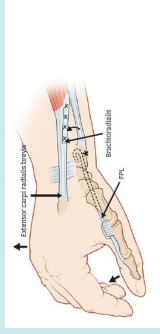
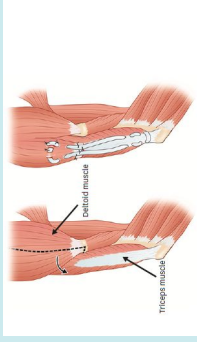
Take a muscle that works and attach to muscle that doesn't work via tendon. Protect while heals. Retrain.

- **Straighten elbow**

TROIDS (Posterior deltoid to triceps)

- **Closing hand & pinching thumb**

Grip and pinch reconstruction with tendons



What are the surgical options?

Nerve transfers:

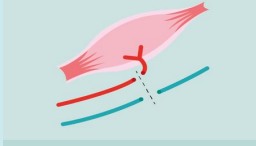
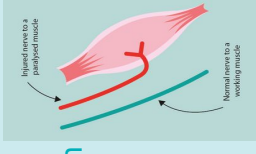
Nerve to muscle that does work and attach it to a nerve of a muscle that doesn't work. Regrows into new nerve. Retrain.

- **Hand opening**

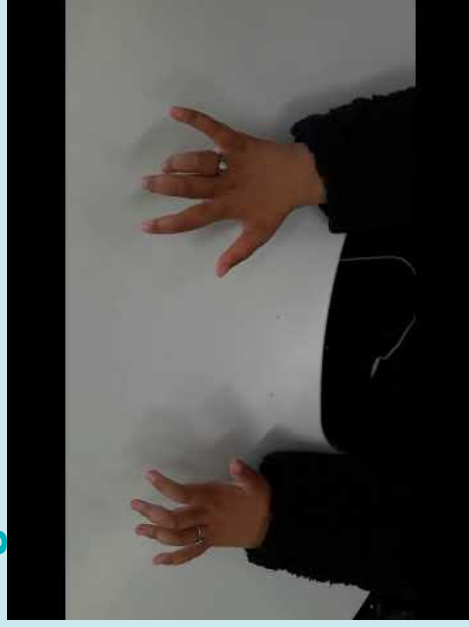
- SPIN (Supinator n. to Posterior Interosseous Nerve)

- **Hand closing**

- BAIN (Brachialis n. to Anterior Interosseous Nerve)



1 year post-op bilateral SPIN and E-AIN nerve surgeries:



Why patients choose TROIDS

"I can push my manual wheelchair better"

"I can now throw and catch a ball with my son"

"I can reach for things on shelves above my head"

"I can now use my phone when lying down"

"I can push my hands away from my face when I wake up in the middle of the night"

"I can now cast my own fishing rod"



Grip tendon surgery

Week 1-4 - Cast forearm and hand
Discharged home for this period
Can't use hands!

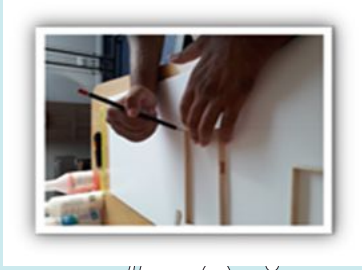


Why have Pinch surgery?

I can now hold a pen easily and sign

Now I can open chip and snack packets for my kids

Now I can hold my eftpos card firmly and swipe it

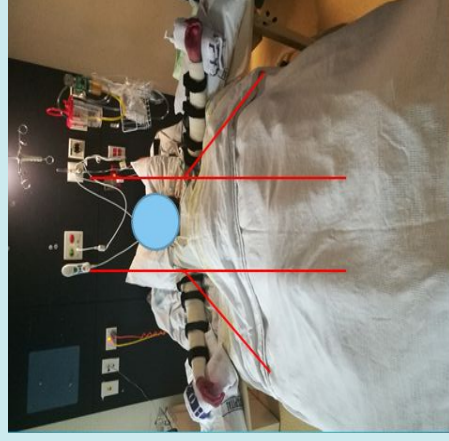


"I can now open my lipgloss and apply my makeup"

"I can now prepare my own toast and spread for breakfast"

"I am now able to empty my own catheter bag and pull my trouser leg back down"

Intra Operative Photos



TROIDS Positioning Post-Op

Intra Operative Photos

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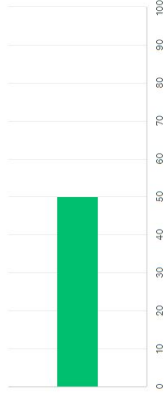
Survey Monkey for results....

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Question 8:

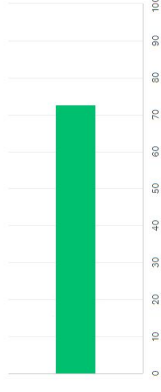
How would you rate your confidence managing someone going through ASRU TULS pre workshop?

Answered: 19 Skipped: 0



How would you rate your confidence managing someone going through ASRU TULS post workshop?

Answered: 19 Skipped: 0



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Countries: Manukau Health Members register free through Employee Kiosk

For enquiries contact: Maree.Walters@middlemore.co.nz

Te Whatu Ora Health New Zealand

SCI Physiotherapy Guidelines
Guidelines for the management of people with Spinal Cord Injury

SCIPTguide.com

About Guidelines About Us For Consumers For Clinicians Contact

Australian and New Zealand Clinical Practice Guidelines
For the physiotherapy management of people with Spinal Cord Injury



The Australian and New Zealand SCI Physiotherapy Clinical Practice Guidelines Team

The development of the Australian and New Zealand Physiotherapy Guidelines for people with spinal cord injuries (SCI) was coordinated by Dr Joanne Ginsky and Professor Lisa Harvey of the [John Walsh Centre for Rehabilitation Research](#), Northern Sydney Local Health District, Sydney, Australia and [Lisa Keating-Jambou](#), University of Sydney, Sydney Australia.

OUR PEOPLE



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Health New Zealand

Support Workers Workshop on SCI

“Useful things to Know When
Caring for a Person with SCI”

Maree.Walters@middlemore.co.nz

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Health New Zealand



Ngā mihi nui

Thanks for listening

Maree.Walters@middlemore.co.nz

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Counties Manukau



NZ Spinal Cord Injury Registry
Te Rōhika Whānau Aho Tūāwhiri ā-Moau

ANY
QUESTIONS?