

Your Amputee Patient has made it
Home. What's Next?

Supports in the Community after
Lower Limb Amputation

Medical Aids Subsidy Scheme

18 April 2024

Your amputee patient has
made it home- what's next?

Supports in the community after
Lower Limb amputation

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April 2024



Introduction



Outline

Brisbane amputee population

Amputation journey

What does the literature say?

Peter's story

Keys to Success

Brisbane Amputee Population



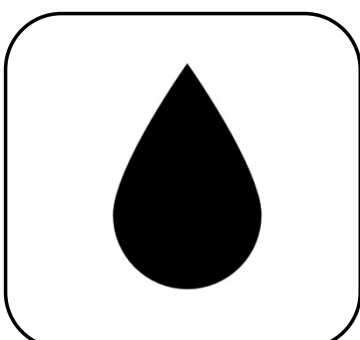
74% male



Mean age: 65yrs



43% TTA



80% dysvascular



No. comorbidities:
58% >3



72% born in
Australia



50% no
partner



50% own home



18% working



69% pension

Amputation Journey

Amputation

- Trauma vs elective

Post-op

- Healing
- Oedema management
- Adjustment support
- Manage other injuries/ co-morbidities

Pre-prosthetic
rehab

- Transfers/ Mobility
- Balance
- CV Fitness training
- Acceptance

(Prosthetic
rehab)

- Prosthetic training
- Hospital based- inpatient/ outpatient
- Community
- Amputee Clinic

Community
reintegration

- Home
- Family
- Social
- Work

A magnifying glass with a black handle and frame is centered over the word "RESEARCH". The word is written in large, bold, black, sans-serif capital letters with a slight 3D effect. The background is a dark gray with a faint world map and scattered binary code (0s and 1s). Other words are faintly visible in the background, including "DIVERSITY", "STRATEGY", "EDUCATION", "TEAMWORK", "INNOVAT", "RESULTS", "LEARNING", "RISK", "EXPERIENCE", and "VISION".

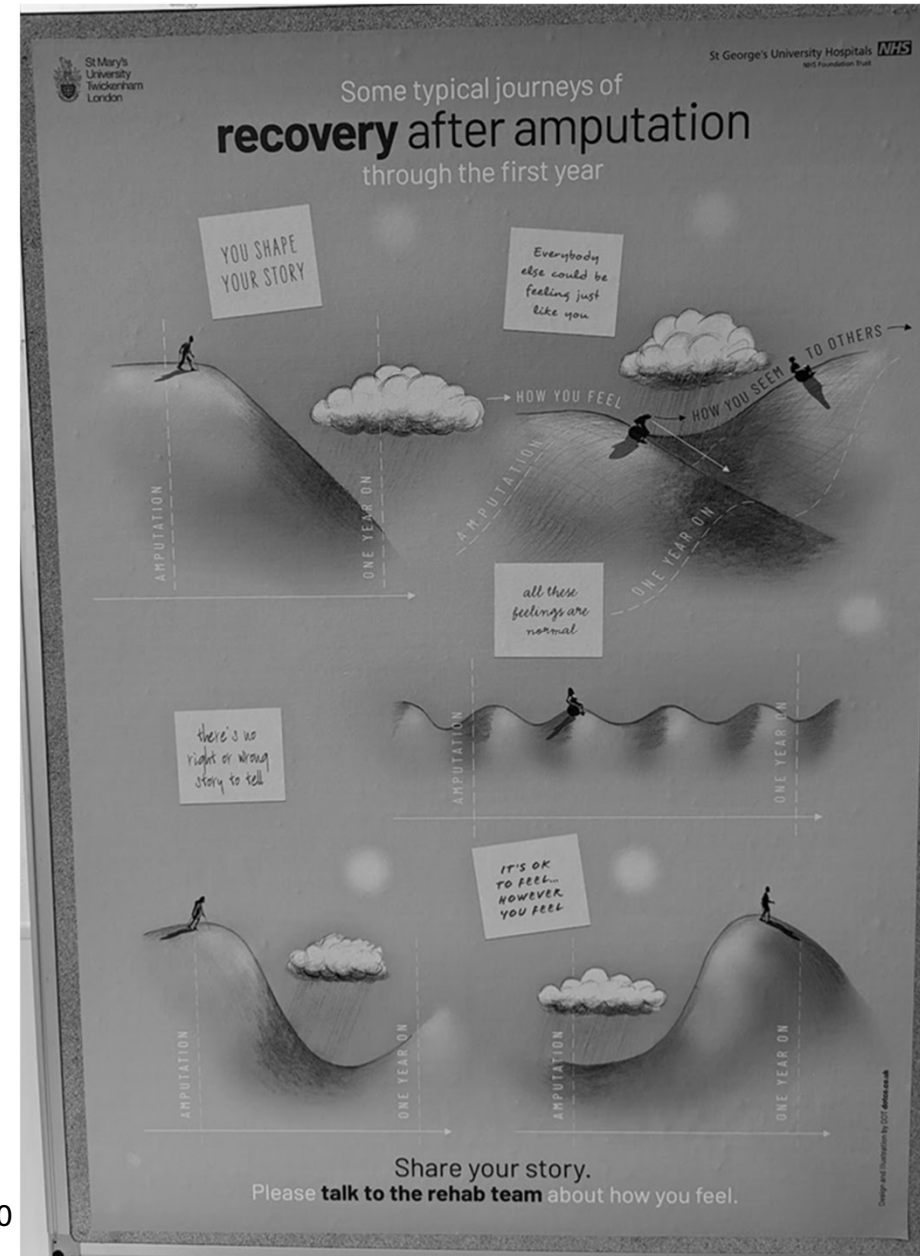
RESEARCH

Outcomes of amputation

- Require increased support Batten 2015
- 21% will change accommodation whilst in hospital Batten 2015
- 64% will experience Phantom Limb Pain Limakatso 2020
- Stump pain and PLP limit activity and participation Yerli 2024
- Falls Kulkarni 1996
- Complex adjustment process Gallagher 2001
- Body image Gallagher 2007

Recovery Trajectories

- Accelerated decline
- Adaptation
- Illusory cure
- Muddling along
- Projection



Sanders 2020



**Not everyone
will be a
prosthetic user**



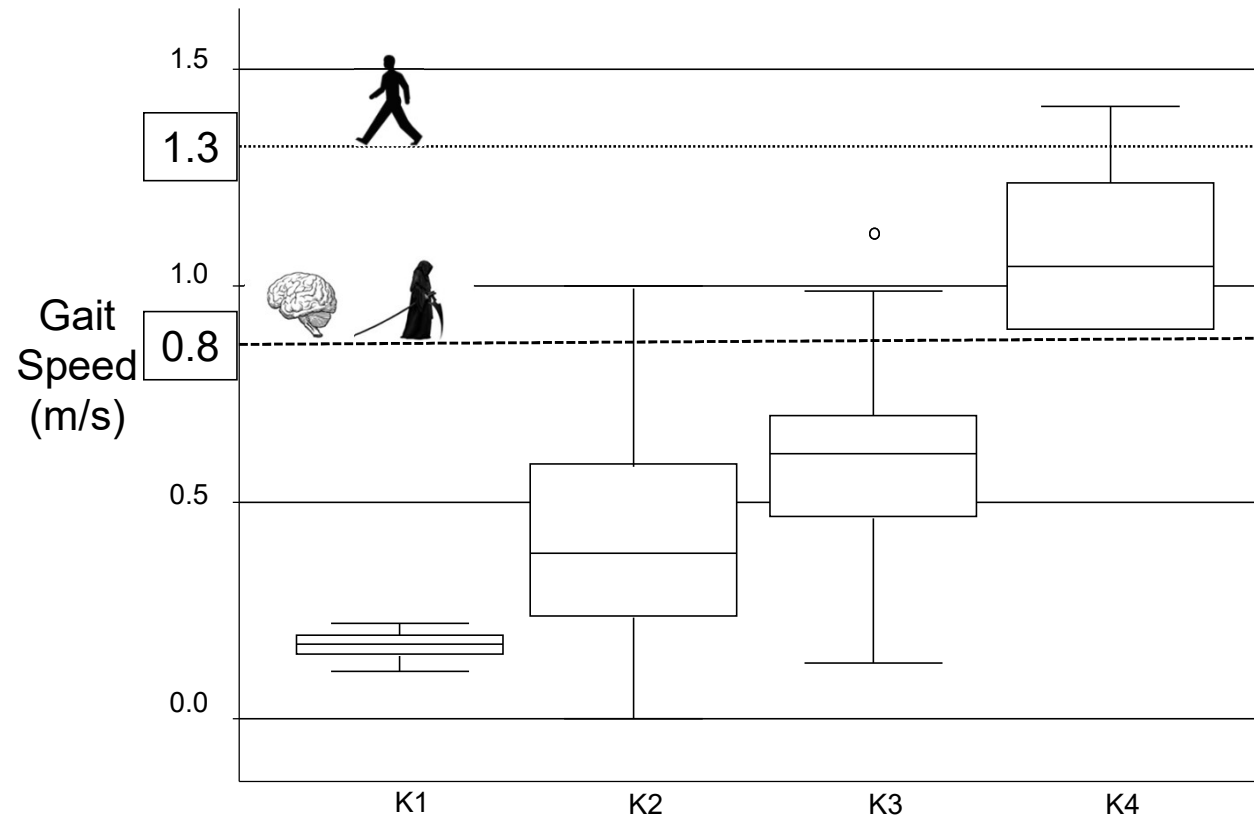
Prognostic Factors for prosthetic Use

- Age
- Aetiology (Trauma 75% vs Vascular 50%)
- Level of amputation (TTA 70% vs TFA 15%)
- Comorbid conditions- cardiac, ESRF
- Cognitive function
- Body habitus
- Premorbid function
- Motivation/ goals
- Stump condition
- Muscle strength and joint ROM in both legs
- Hand dexterity
- Vision

Batten 2015; Davie-Smith 2017, Fleury 2013, Geertzen 2001, Sansam 2009, Weiss 1990



Gait speed



n=110

Spearman's
rho= 0.64

Batten 2019

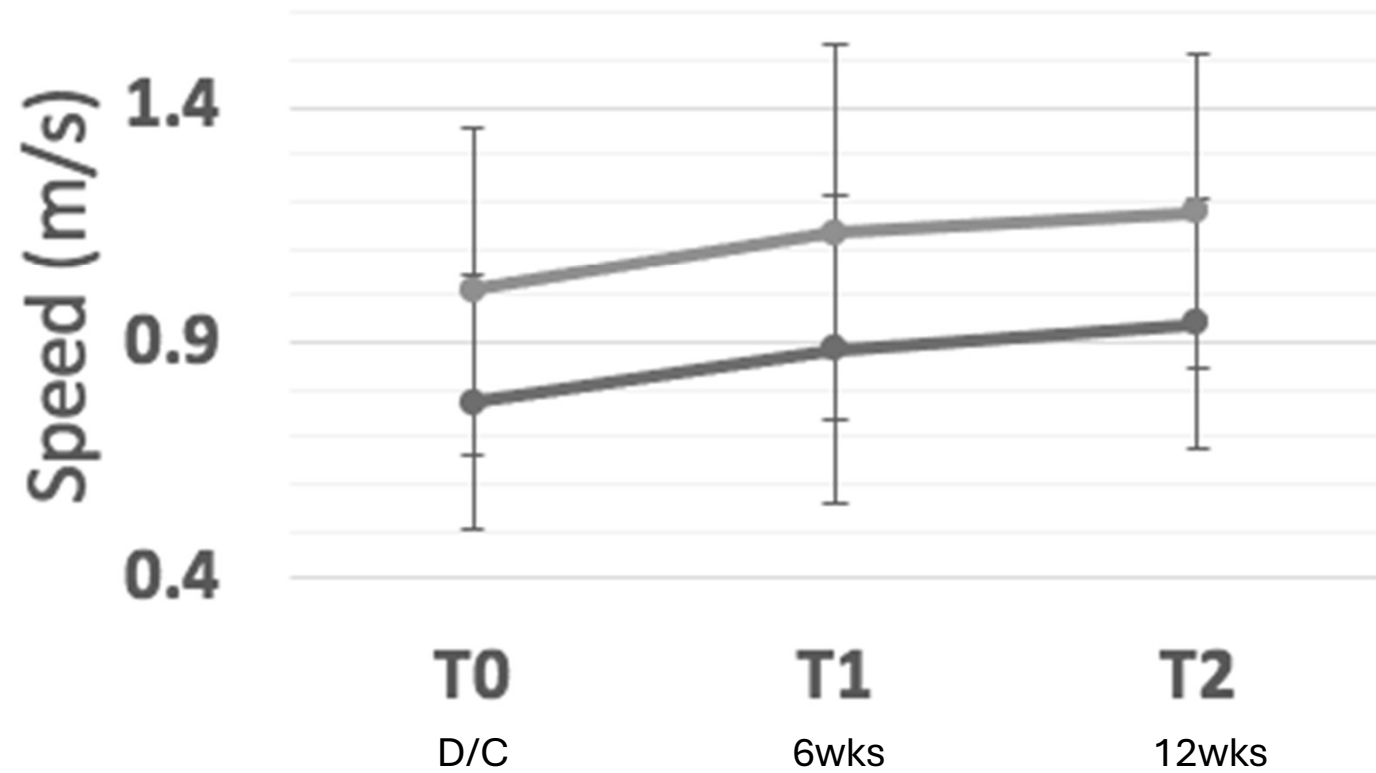
Gait speed over time

Mean gait speeds

Fast
 $p = 0.007$

Self-selected
 $p = <0.001$

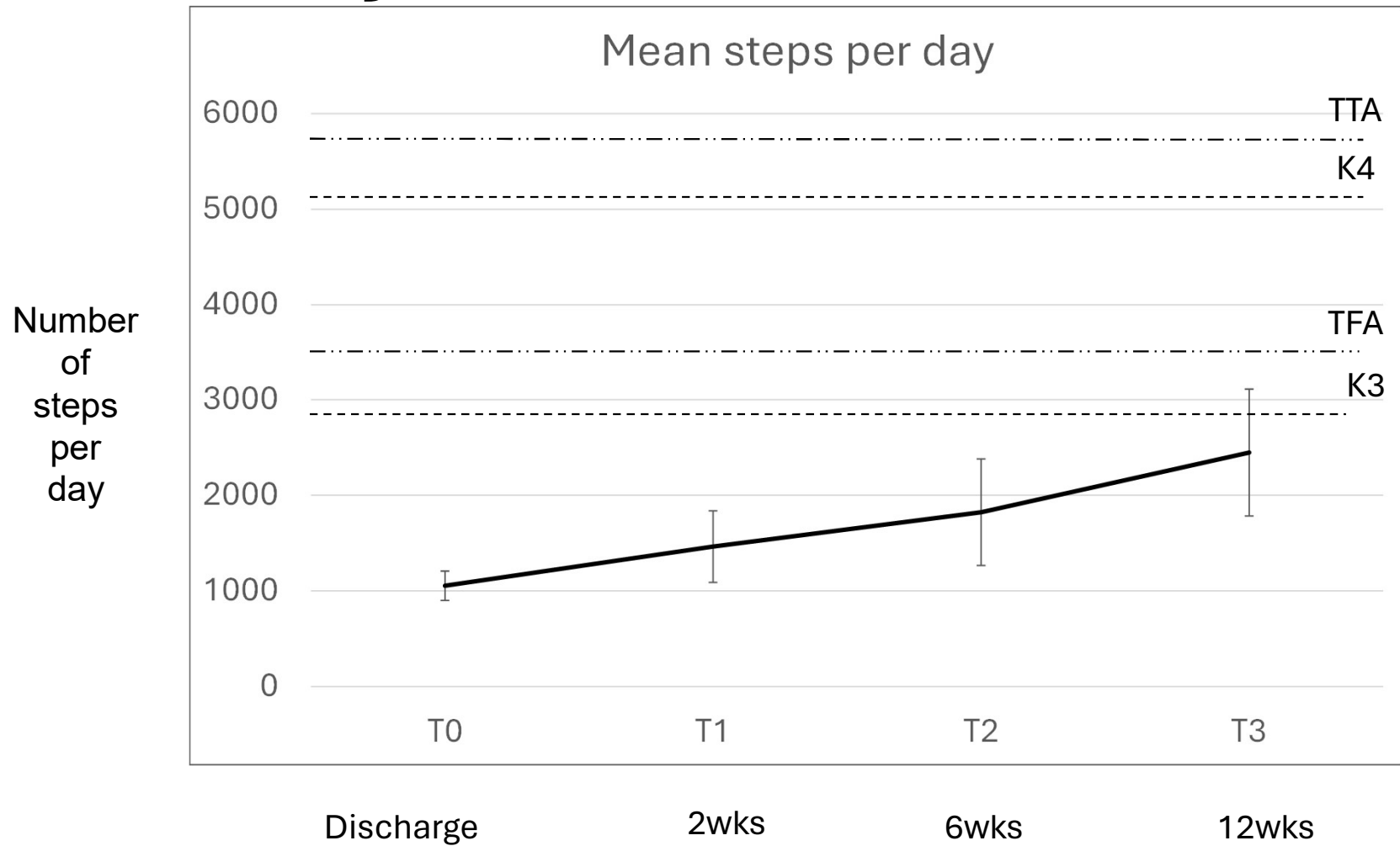
n=24



Energy Cost of Walking with prosthesis

| | |
|---------------------------|------|
| Transtibial Non-vascular | 12% |
| Transtibial Vascular | 36% |
| Transfemoral Non-vascular | 41% |
| Transfemoral Vascular | 102% |

Physical Activity



n=12

(p=.18)

Barriers and Enablers to Community Walking

| Barriers | Enablers |
|--------------------------|---------------------------------|
| Prosthetic function | Prosthetic function |
| Stump integrity | Fitness |
| Phantom limb pain | Adjustment to change |
| General Health | Determined attitude and purpose |
| Uneven terrain | Walking aid use |
| Climate | Preparation |
| Building access | Social support |
| Crowds | Finances |
| Carparking and transport | |
| Unwanted attention | |
| Finances | |

Peter's Insights

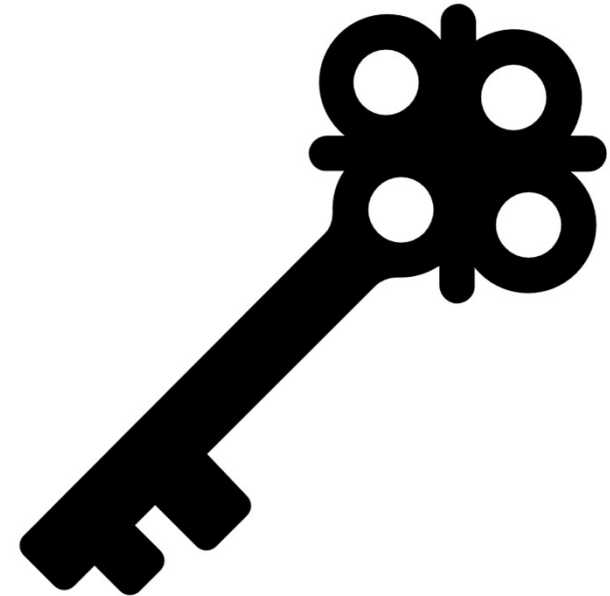
| Challenges | Enablers |
|--|-------------------------------|
| Shock | Peer support |
| House access | Sharing knowledge with others |
| Isolation | Professional MDT support |
| Navigating interim- definitive program | Inpatient rehab |
| | Weekend trial |
| | Equipment |
| | Family support |



So how can we better support people on their amputee rehab journey?

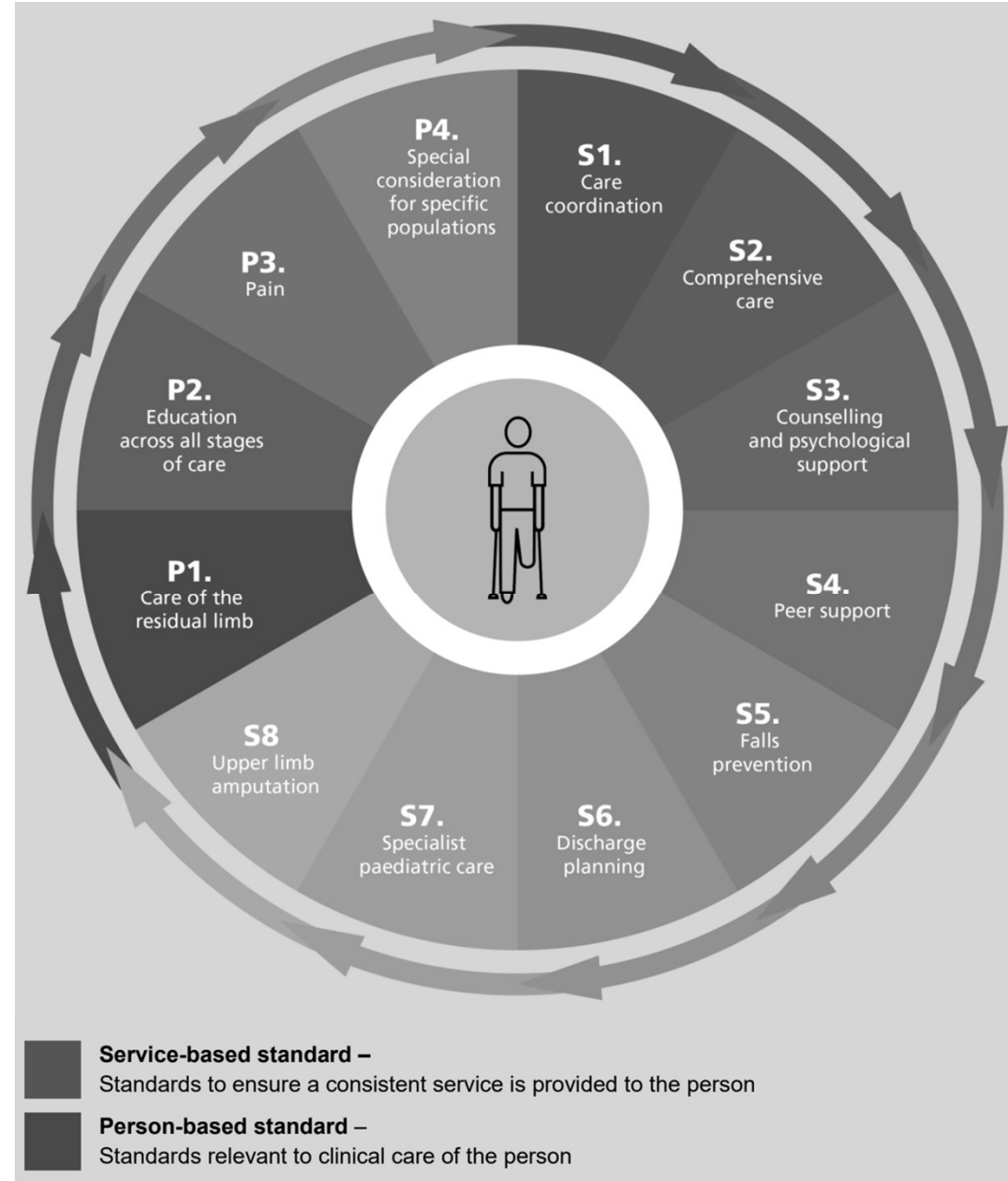
Keys to Success

- Multidisciplinary Team Support
- Pain management
- Prosthetic therapy
- Peer Support
- Preparation for home/ community
- Health literacy
- Comfortable and suitable prosthesis
- Fitness training and Physical activity
- Accessible community





Multidisciplinary Team Support



Pain Management

BACPAR recommends:

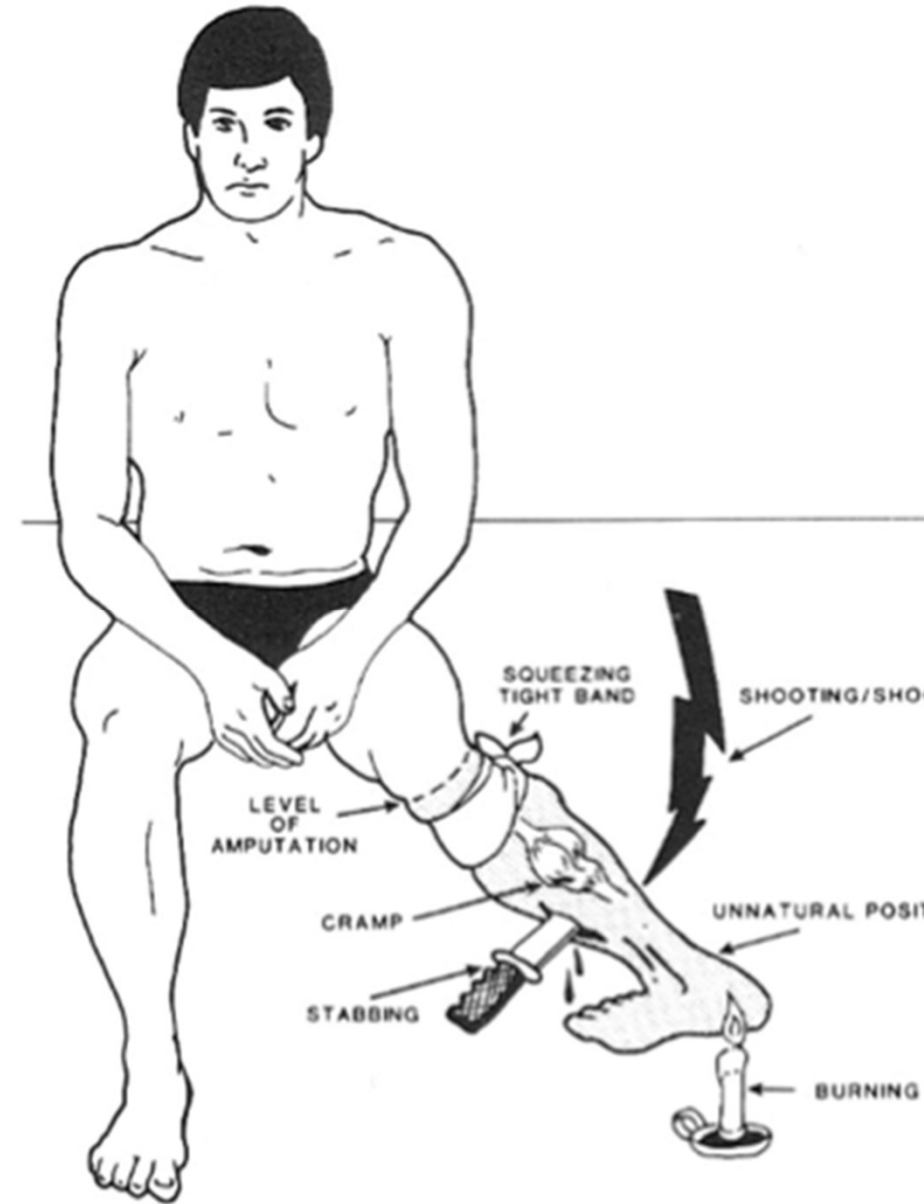
- Early education
- Info and treatment from knowledgeable clinicians
- Self-management
- Treat stump pain

Smith 2016

PLP Treatment:

GMI, mirror therapy, Amitriptyline, sensory discrimination training, functional prosthesis, CBT, virtual reality training

Limakatso 2021





Prosthetic Therapy

- Specialised therapy
- Understand how prosthetic components work
- Understand normal gait
- Don't rush progression
- Plan for final gait aid
- Train for reality
- Regular prosthetic reviews in interim





facebook



Peer Support





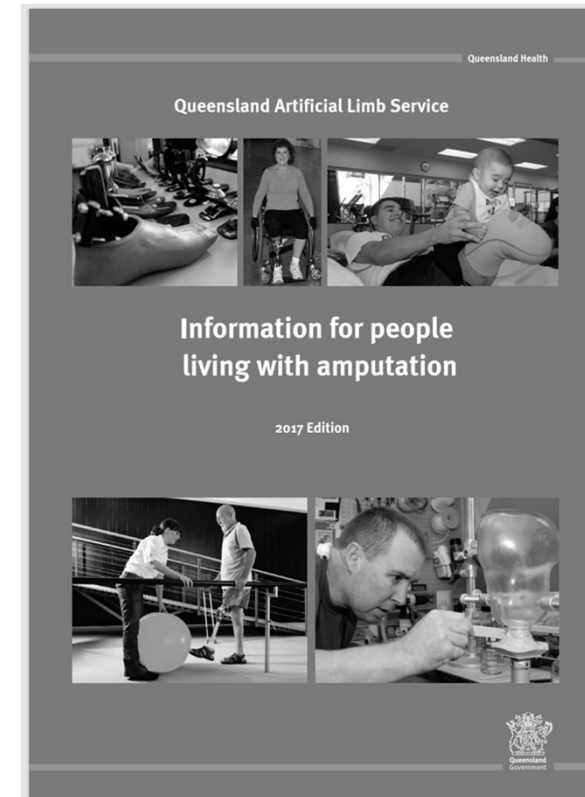
Preparation for home and community

- Individualised goal- based therapy
- Weekend trials
- Community outings
- Increased supports
- Home visits post D/C



Health Literacy

- Education
- Self-management
- Develop good health habits
- Navigating health system
- Maintain health links



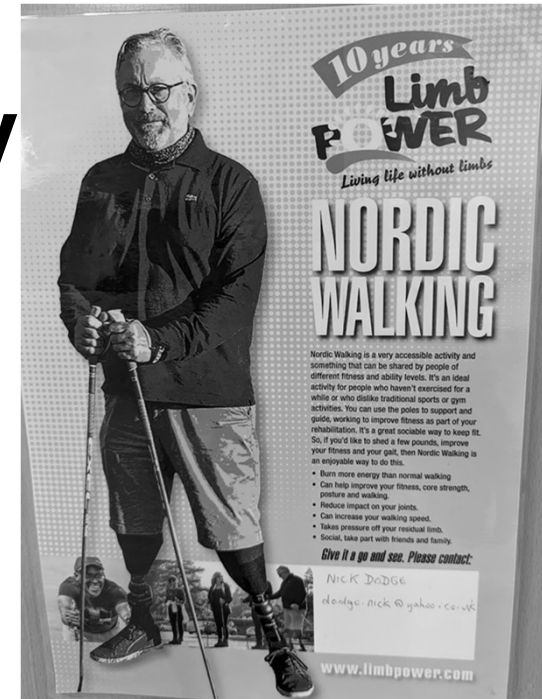


Comfortable and suitable prosthesis

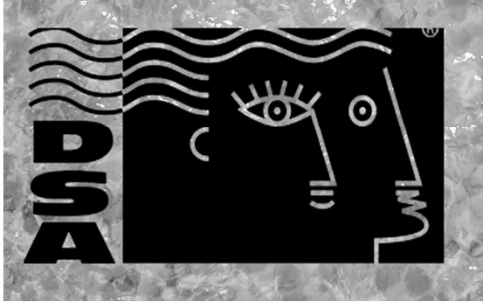


🔑 Fitness training & Physical Activity

- Dose: 1-3 sessions of 20-60mins ex per wk Dupuis 2023
- Incorporate early
- Consider environment
- Support-group led
- Medical hour at community pool
- Sports Therapist
- Sports Consultant
- Accessible gyms



Physical Activity Opportunities



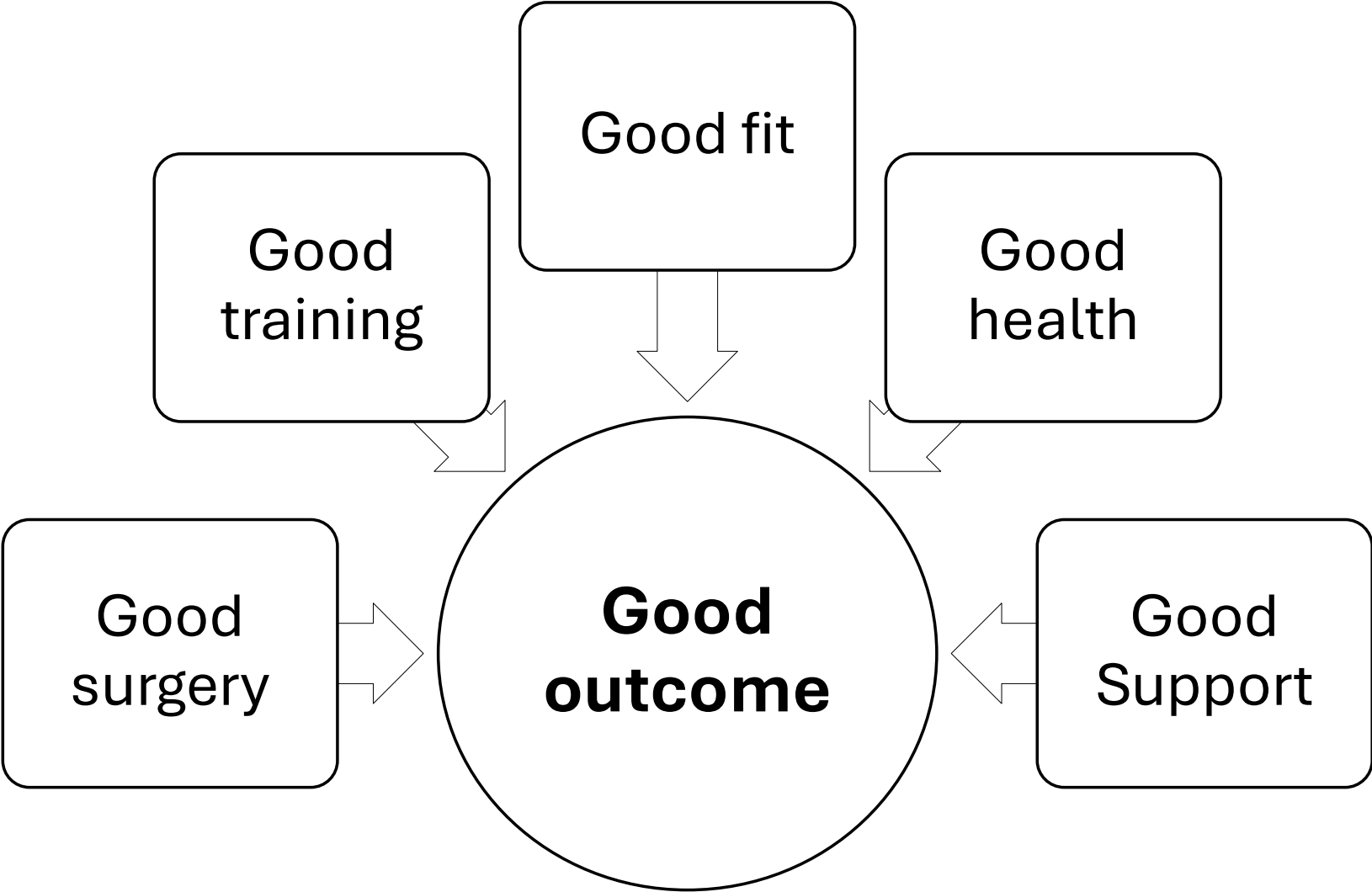
Changing lives through sport



Accessible community

- Social as well as environmental
- Public transport, carparks
- Beaches
- Prosthetic components and equipment
- Rehab utilising community facilities





Questions and Comments



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Scan QR code for link to Churchill Fellowship report- *To improve transition of people with lower limb amputation from hospital to living in the community.*

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MASS Education

MASS Webinar Recordings for Further Learning

Latest Developments in QALS and a Prospective Study into Functional Outcomes of New Prosthetic Users - February 2024

Outcome Measures for Adults with Upper and Lower Limb Amputations - March 2023 (58 min)

MASS Recorded Webinars and On-Demand Library (covering a range of topics in assistive technology)

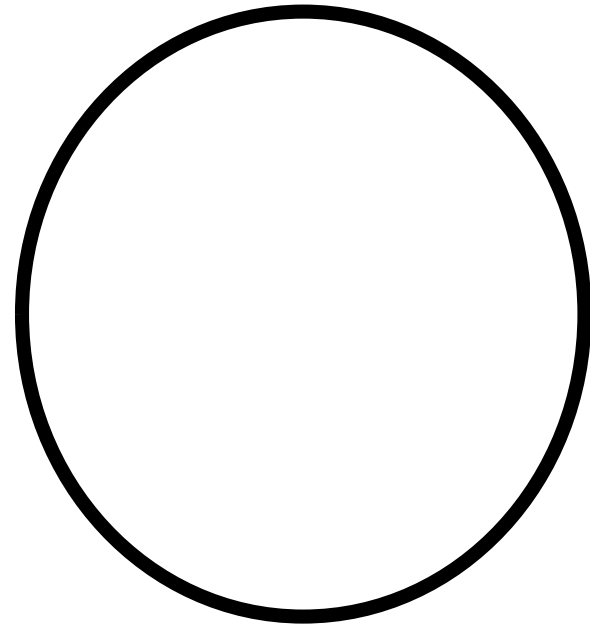
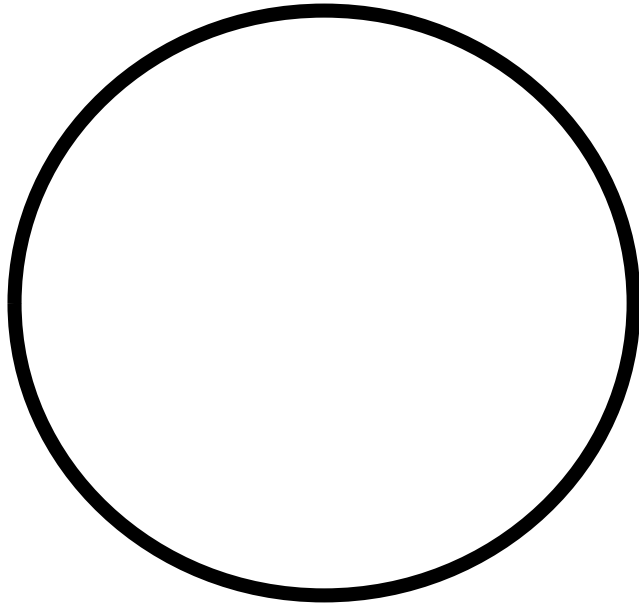
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