Enhancing Stroke Care Project 2013

Final Report

Andrea Murphy Project officer 5/2013
Revised by Linda Rabbidge 9/2013
Peninsula Health Community Health
Executive summary:

It has been recognised that the number of people surviving a stroke is increasing, with an estimated 375,800 people surviving in 2009 (Australian Institute of Health and Welfare AIHW 2013). Due to the aging population this number is predicted to rise. The Mornington Peninsula is one of the most concentrated population regions for the over 65 age group, in Australia. It is projected that this age group will rise from 16.5% to 32% by 2019 (Primary Care Partnership, 2012).

Peninsula Health has successfully provided a circuit training program for stroke survivors since 2007. An application was made to the Victorian Stroke Clinical Network in 2010 for project funding. The project was to establish; low cost, self-sustaining community based physical activity programs for stroke survivors, within the local Peninsula Health catchment.

This community based model provides an intervention to improve/maintain the mobility and quality of life of stroke survivors. This was delivered with help from the Victorian Stroke Clinical Network (VSCN). Originally in 2011, the project first succeeded in helping stroke survivors gain better quality of fitness by working in partnership with both Mornington Peninsula Shire Leisure Centres and Monash Sport Frankston. In 2013 the project rolled out to other geographic areas and increased the number of sites involved within the Peninsula Health catchment.

A project officer was employed for a period of 6 months to: expand the current stroke service, update and develop training packages, provide training for fitness instructors and health providers, develop an implementation pack for other health providers, who may wish to implement this program in the future. During this time, the project officer conducted significant health provider engagement activities, which resulted in the recruitment of four health providers who were committed to developing and supporting the stroke circuit program within their catchment areas.

As a consequence of this work, a further three fitness providers were engaged within the Peninsula Health local catchment area and a further five within the metro region. By the end of the project, 38 fitness instructors were trained to provide this program. The training has now been approved by Fitness Australia ‘Circuit training for stroke survivors’ and therefore can be accessed by any suitability qualified fitness instructor.

The stroke survivors (our consumers), now have improved accessibility to this program. The project has supported seventy five consumers to attend this program with very positive physical and psychosocial outcomes as documented in this report.
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*Appendix 1 – Terms of reference – working party
Appendix 2 – Training Manual
Appendix 3 – Mornington newspaper article*
Acknowledgements

Created by Peninsula Health Community Health; working in partnership with both Mornington Peninsula Shire and Monash Sport Peninsula.

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Peter Hardaker (Consumer Representative)
Fleur Varkevisser (Physiotherapist)

Victorian Stroke Clinical Network
Sonia Denisenko
Thank you partners

We would like to express our thanks to the following organisations who have contributed:

*Victorian Stroke Clinical Network (VSCN)*

The original project was funded by the Victorian Stroke Clinical Network (VSCN) of the Department of Health.

Peninsula Health Community Health

Peninsula Health GLR

Peninsula Health Stroke Detours

Monash University - Sport

Mornington Peninsula Shire, Pelican Park & David Collings Recreation Centres

Community/Consumer Representatives

St Vincent’s Melbourne St George Community Rehabilitation Centre

Alfred Hospital – Caulfield Community Rehabilitation

Knox Community Health Service

Inner South Community Health Service

**Forward**

Your interest in the Enhancing Stroke Care project has been greatly received. By taking part in this project you are part of the community commitment in supporting stroke survivors in better post stroke care.
Project background:

Stroke is a significant burden to patients, families, the health care system and the community. In 2004, Cerebrovascular disease was the 6th leading cause of burden of disease worldwide with an estimated 46.6 million disability adjusted life years lost (DALY), representing 3% total DALYs in that year (World Health Organisation WHO 2008). In 2006, the former Department of Human Services (the Department) developed a plan for guiding our stroke care services over the next five to 10 years. They consulted with experts in this field, including: health professionals, stroke care providers, the National Stroke Foundation, as well as stroke survivors and their families. The result is the Stroke Care Strategy for Victoria (Department Human Services DHS, 2007). This provided health services with a framework to develop optimal stroke care. As a result of this strategy Peninsula Health developed the Enhancing stroke care project. This project involved establishing community based circuit training for stroke survivors, run by and at local gyms and fitness providers. This community based model provides an intervention to improve/maintain the mobility and quality of life of stroke survivors. The project was delivered with support from the Victorian Stroke Clinical Network (VSCN).

Originally in 2011, the project first succeeded in helping stroke survivors gain better quality of fitness by working in partnership with both Mornington Peninsula Shire Leisure Centers and Monash Sport Frankston. The 2013 project now moves to rollout the model to other geographic areas.

“... the best ongoing care after the stroke will give survivors their greatest chance of avoiding another stroke and improving their quality of life” (DHS 2007)

Limited timeframes associated with public rehabilitation of stroke patients means the lifelong exercise needs of stroke survivors needs to be managed within the community. The Clinical Guidelines for Stroke Management indicate that “patients should be encouraged to undertake regular ongoing fitness training” and that “stroke survivors should be encouraged to participate long-term in appropriate community exercise programs” (National Stroke foundation, 2010). A qualitative study of stroke survivors living on the Mornington Peninsula found that stroke survivors wanted to continue a regular gymnasium exercise program however, this was not available for them to access (Gore, 2009). Prior to this project, there were no organised community exercise groups targeted towards stroke survivors on the Mornington Peninsula. The circuit training was modelled on the successful circuit training program conducted by Peninsula Health at Frankston Community Rehabilitation Centre in 2007. This program has demonstrated significant changes in walking speed and endurance and has serendipitously established an informal support network amongst participants and their carers (Kent and McKenzie 2007). Upon discharge from centre based circuit training, there were no organised community exercise groups for stroke survivors.
Objectives:

Objectives for this project are:

1. to continue to enhance stroke care availability across Victoria, making it accessible to all stroke survivors at an affordable cost.
2. to support local fitness providers to establish a community based self-sustaining model of stroke circuit groups.
3. To provide frameworks for client recruitment mechanisms and reviewing the current educational training kit and manual for community Gym instructors, developing a comprehensive guide for any health provider wishing to provide this service (Appendix 2 & 3).
4. To initially provide a training program, to fitness instructors and clinicians identified as mentors for each program, facilitating appropriate/relevant education, training and support.

Methodology/implementation and planning:

The aim of the project is to build on the work previously completed during the 2011 project, with neighbouring health providers of the Southern Metropolitan Region to expand and modify the Enhancing Stroke Care model to other geographic areas. This project will support the implementation of this program to neighbouring health providers, local fitness providers and fitness instructors.

Initially the project officer began by identifying external health providers interested in the project. During a consultation process these providers agreed to establish and support the stroke circuit program in their local catchment areas. To facilitate this process a training package was developed, which included a training session, guide for fitness instructors, establishing local mentorship for support and developing an information/implementation pack.

Through this process a working party was also established to plan the implementation of this project. The working party consisted of the project officer, project manager, and representation from a local fitness provider already providing the service, and a physiotherapist from a new provider. (See Appendix 1, for terms of reference).
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<td>Identify key working group</td>
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<td>Utilise Brief to identify project parameters and establish a project logic</td>
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<td>Establish TOR</td>
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<td>Meet with current program organisers</td>
<td></td>
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<tr>
<td>Develop project logic, work plan &amp; task timelines</td>
<td></td>
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<tr>
<td>Establish project monitoring and evaluation processes</td>
<td></td>
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<td>Literature review</td>
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<td>Working party meetings</td>
<td></td>
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<tr>
<td>Review exercise guidelines, policy and procedures and risk management</td>
<td></td>
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<tr>
<td>Referral pathways, access and recruitment for the pilot program</td>
<td></td>
</tr>
<tr>
<td>Meet with Health Providers</td>
<td></td>
</tr>
<tr>
<td>Recruit Gyms</td>
<td></td>
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<tr>
<td>Training Presentation</td>
<td></td>
</tr>
<tr>
<td>Implement program – mentoring/support</td>
<td></td>
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<tr>
<td>Update materials and policy and procedures</td>
<td></td>
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<tr>
<td>Complete evaluation and recommendations</td>
<td></td>
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**Enhancing Stroke Care**

**Logic Model**

**Inputs**
- Working Group:
  - Project Manager
  - Project Officer
  - Physiotherapist/Exercise Physiologist
  - Consumer representatives
  - Neighboring Health services
  - VSCN
  - Gyms
  - Stroke survivors
- Resources:
  - 12 months funding
  - Orientation
  - Project Budget
  - Research & Evaluation
  - Funding Terms
  - Current Project Tools
  - Current literature

**Outputs**
- Process & Activities
  - Identify working group
  - Conduct Meetings
  - Review literature
  - Develop a plan
  - Develop TOR
  - Policies & Procedures
  - Referral pathway mechanisms
  - Revise and update tools
  - Training – Gyms:
    - Delivery
    - Presentation
    - Assessment & evaluation
  - Recruiting:
    - Gyms
    - Clients
  - Evaluation of framework:
    - Client feedback
    - Training
    - Process
    - Long term
    - Ongoing
  - Reports:
    - Ongoing
    - Midterm
    - Final
    - VSCN

**Outcomes**
- Short
  - Stroke Survivors:
    - Availability of phase III rehabilitation
  - Health Providers:
    - Referral options
  - Gym:
    - Increased client numbers

- Medium
  - Stroke Survivors:
    - Increased social inclusion
    - Decreased depression & anxiety
    - Increased independence
    - Increased motivation
  - Health Providers:
    - Decrease avoidable re-admission
  - Gym:
    - Increased revenue
    - Increased social capital

- Long
  - Stroke Survivors:
    - Increased exercise tolerance
    - Increased strength
    - Increased functional ability
  - Health Providers:
  - Gym:

**Assumptions**
- Best practice is based on clinical evidence, experience and knowledge of clinicians and the goals of the client
- Exercise may lead to improvements in physical function and health related quality of life
- Factors influencing exercise attitudes and motivation include if:
  - Program being offered is consistent with client preferences
  - Accessibility

**External Factors**
- Distance
- Resources
- Staff availability
<table>
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<th>Milestone</th>
<th>What worked</th>
<th>What didn’t work</th>
<th>Ways to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaging health providers</td>
<td>List of prospective providers drafted (total= 6)</td>
<td>Didn’t reach all interested parties at first.</td>
<td>Referrals or actual link ins to specific departments.</td>
</tr>
<tr>
<td></td>
<td>Letter/email drafted and sent to key people at selected organisations</td>
<td>Required further email or phone call follow-up.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Not all had resources or time to take project on.</td>
<td></td>
</tr>
<tr>
<td>Engaging fitness providers &amp;</td>
<td>Sourcing community focused organisations such as the YMCA organisation</td>
<td>Approaching some standalone fitness providers</td>
<td>Focus on community minded fitness providers where relationships are already</td>
</tr>
<tr>
<td>instructors</td>
<td>Approaching fitness providers already engaged in project conducting</td>
<td></td>
<td>established.</td>
</tr>
<tr>
<td></td>
<td>exercise groups for people with special needs and therefore the fitness</td>
<td></td>
<td>Work smarter at beginning allowing time to help support &amp; establish a</td>
</tr>
<tr>
<td></td>
<td>instructors had some experience working with this population</td>
<td></td>
<td>relationship between new fitness provider &amp; health provider</td>
</tr>
<tr>
<td>Conducting meetings</td>
<td>Emailing and setting up times via outlook calendar.</td>
<td>Wasn’t always successful in getting to see both health provider &amp; fitness</td>
<td>Once contact made &amp; interest is confirmed, hold a forum or mini workshop for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>provider on same day, and meetings were changed or cancelled on a number of</td>
<td>all to attend on same day</td>
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<tr>
<td></td>
<td></td>
<td>occasions.</td>
<td></td>
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<tr>
<td>Review training manual</td>
<td>Decision to utilise the manual that had already been developed with the</td>
<td>Consumers made comments that exercises are low impact &amp; only for lower body.</td>
<td>Add more variations and progressions of exercises to circuit on an individual</td>
</tr>
<tr>
<td></td>
<td>initial project in 2010 was decided by steering committee therefore renewal</td>
<td></td>
<td>basis as client improves.</td>
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<tr>
<td></td>
<td>of Fitness Australia was a very simple process this time.</td>
<td></td>
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<tr>
<td></td>
<td>A request to Fitness Australia to allow St Vincent’s to nominate their own</td>
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<tr>
<td></td>
<td>physiotherapist as an assessor using our training materials was successful.</td>
<td></td>
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<tr>
<td>Fitness instructor training</td>
<td>Training workshop with fitness instructors was well received – all positive</td>
<td>One entire Fitness provider group didn’t show.</td>
<td>Where possible focus on community minded fitness providers where</td>
</tr>
<tr>
<td></td>
<td>feedback from attendees</td>
<td>Slower process with gyms that had no relationship prior to project.</td>
<td>relationships are already established.</td>
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<td></td>
<td>Ensured experienced fitness instructor available &amp; or mentor &amp; a consumer</td>
<td>Really had to push the flexibility requirements for fitness instructors to</td>
<td>With new relationships spend more time on initial requirements with regards to</td>
</tr>
<tr>
<td></td>
<td>Plenty of information, handouts, Q &amp; A time.</td>
<td>attend on dates we had set up</td>
<td>safety of client &amp; involvement of mentor.</td>
</tr>
<tr>
<td>Mentoring</td>
<td>Health providers are appointing mentors in their own catchments – drafted PD has been passed on to providers. Peninsula Health Community Health has now nominated 4 mentors &amp; a PD has been drafted.</td>
<td>Confusion of how much work to be conducted, area too large, worried about numbers. Just sending emails with documents initially caused some confusion with some partners.</td>
<td>Clarifying role with PD, breaking the area up with community Health contacts to come on board &amp; mentor. Inviting health providers to our established groups including setting up a time for document sharing to include thorough explanation.</td>
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<tr>
<td>Extra providers in Peninsula Health catchment</td>
<td>Time allowed Fitness providers in our catchment to be approached to add service to current needs by increasing providers in all geographical areas. Establishing a number of referrals quickly.</td>
<td>Recommending the inclusion of referrals as a type of KPI format for Physio’s &amp; EP’s.</td>
<td></td>
</tr>
<tr>
<td>Sub project plan Review of referral process</td>
<td>Revisit all groups at PH - Access, SACS, GLR, PTs to increase referral. Revise internal referral forms. Timing of meetings took much longer than anticipated. The need to continuously follow up on requests failed in some cases. Lack of response to emails.</td>
<td>More emphasis placed on responding to emails &amp; meetings.</td>
<td></td>
</tr>
<tr>
<td>Advertising:</td>
<td>Revised advertising material and changed photo of current brochure &amp; poster. Editorial printed in one of the local papers as well as placed on their website. Printed in our own internal newsletters, website, Facebook and Pulse magazine. Article printed in GP network, GP Connect and Health Victoria Vol 5 #4. Working with Public relations was very positive. A request for printing it in 3 local papers was unsuccessful.</td>
<td></td>
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<tr>
<td>Evaluation of participant outcomes</td>
<td>Minimal results delivered, however the results show a slight increase. Designing an evaluation process and passing the information over to the Health Providers to just fill in. Sample size too small.</td>
<td>• Delay in groups starting • Limited time available to team conducting the evaluation • Clients unable to keep appointment times for re evaluation. • Allow more time for project to run the actual circuits • During a circuit set up a clinic, conducting final assessments at Gym location to assist in increased client</td>
<td></td>
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<tr>
<td>Evaluation of partnership</td>
<td>• Sessions numbers vary from client to client</td>
<td>Encourage more input from beginning of project and emphasise the importance of evaluation for everyone.</td>
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<td>Surveyed partners to seek their feedback and advice as to how these relationships currently are functioning. Good feedback, positive &amp; constructive. 21 partners invited 15 responses of which 2 were incomplete. Therefore a total of 13 responses were calculated.</td>
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Evaluation and outcomes:

Health provider and fitness provider engagement:
The main outcome was the engagement of five health providers from the wider metro region, who developed their own stroke circuit program with the support of this project. These health providers are: St Vincent’s Community Rehabilitation Centre, Alfred Caulfield Community Rehabilitation, Eastern Health, Knox Community Health Service and Inner South Community Health Service. The fitness providers who facilitate these groups are: YMCA Knox, YMCA Kew, YMCA Caulfield, Re Creation Port Melbourne, Richmond & Collingwood Recreation Centres.

Three new local fitness providers were also engaged to provide the program, which enabled the service to be provided across the Frankston and Mornington Peninsula catchment area.

Thirty eight fitness instructors were trained to deliver this program and the program served over seventy five participants. There is significant capacity for the participant numbers to increase as programs become more established in the community. As part of this project a comprehensive ‘stroke program implementation kit’ has been developed including, a fitness instructor manual, referral/assessment forms etc.

Participant outcomes measures:
The main results are presented below in Figure 1.

Data was collected at baseline and after 8 weeks to assess participant’s physical progress. The findings demonstrated that overall participants maintained or improved their health outcomes after 8 weeks in the stroke circuit. In 2013, 11 participants were evaluated, 1 client’s data was deemed unusable so 10 participants contributed to the data. The data from the 2011 and 2013 evaluations were combined to allow more robust statistical validity, resulting in the total number of clients being 22. These clients attended an average of 6.95 sessions out of the eight and all participants agreed the program had increased their fitness level in strength, mobility and balance.

For the purpose of this project the same evaluation tools were utilised for the 2011 and 2013 project data collection and analysis, these are; 10 meter walk, 6 minute walk test, quality of life questionnaire and 30 second sit to stand.

- 10 meter walk – measures walking speed, step length and cadence. Overall average decrease in time (a positive outcome) of 0.70 seconds to walk 10 meters. Statistical validity of P=0.034 (t.test, two tailed, paired)
- 6 minute walk test – measures walking endurance Average increase in walking distance of 40.63 meters. Statistical validity of p=0.025 (t.test, two paired, paired)
- Quality of life- Stroke adapted – sickness impact profile (SA-SIP). The scores did not change significantly, but the range of scores showed some people scored as having a better quality of life and some worse. Statistical validity of p=7.07 (t.test, two tailed, paired).
- 30 second sit to stand – measures leg strength. Overall average increase in the number of sit to stands from a chair in 30 seconds of 0.33. Not statistically significant.

- Examples of participant feedback “Keeps me going”,
- “improved overall fitness”
- “I was walking with a walking frame and now I am walking on my own”
- “I feel more independent”
- “good social aspect”
- “gives me something to look forward to weekly”.
Stroke Circuit Outcomes Measures:

Outcome Measures - comparison of baseline to eight weeks

- Quality of life measure
- 10 metre walk
- 6 min walk
- 30 sec sit to stand

- Average change %
- Highest positive % change
- Lowest Negative % change range
Conclusions and recommendations:

A person with a stroke has a risk of 43% of having a subsequent stroke over 10 years, therefore secondary prevention strategies are valuable in this cohort (National stroke foundation 2010). Although there is little evidence to support the impact of physical activity in secondary stroke prevention, it can be assumed that physical activity can have an impact on cardiovascular events including stroke. Exercise is well documented to have benefits including; reducing hypertension, improving glycaemic control and falls prevention.

In addition to the physical benefits, the social and peer support developed by a community program cannot be underestimated. Stroke survivors often have a period of adjustment, grieving and reduced self-esteem. The benefit of a program for this specific group of clients is the peer support, the opportunities to discuss shared experiences and to regain self-confidence after a stroke.

It has been demonstrated that the Enhanced stroke circuit training program is a self-sustainable, low cost model of service that can be implemented in any region in the community. There needs to be further ongoing evaluation of outcome measures, with a larger number of participants to gain more statistically valid data. However, it appears the feedback from participants and fitness providers is very positive. Therefore, it can be recommended as a valuable option throughout Victoria.

References:


Appendix:
1. Terms of reference for the working party. 20-21
2. A guide to implementing enhanced stroke care circuit group. 22-30
3. Training manual 31-56
4. Leader article 57
Appendix 1:

FRANKSTON & MORNINGTON PENINSULA
ENHANCING STROKE CARE WORKING GROUP
Terms of Reference (TOR)

Background

The Victorian Stroke Clinical Network (VSCN) funded Enhancing Stroke Care pilot project was created to address limited timeframes associated with public rehabilitation of stroke patients. The project aimed to meet the lifelong exercise needs of stroke survivors within a community setting. The pilot project commenced October 2010.

Peninsula Health worked with local providers David Collins Leisure centre and Monash Sport. A Peninsula Health Physiotherapist delivered training to up-skill fitness leaders. These fitness leaders now run exercise groups for stroke survivors.

This next step is also funded by the Victorian Stroke Clinical network. The aim is to increase capacity of other public health providers develop community based stroke exercise groups in the Southern Metropolitan Region.

Enhancing Stroke Care Steering Group

The multiple stakeholder Enhancing Stroke Care Working Group is responsible for:

- Providing expert guidance to the Project Officer
- Developing a project brief
- Leading the implementation of the project
- Ensuring that the project delivers timely, integrated best practice.

Membership should include representation from:

- Consumer Representation
- Current Enhancing Stroke Care Group leadership
- Peninsula Health:
  - Community Health- Early Intervention and Chronic Disease Project Officer and Project Manager
  - Community Health EICD Manager
  - Physiotherapy
- Partnering neighbouring Public Health Service
**Function**

To provide direction and leadership to build capacity of southern metro health services in developing community based exercise groups for stroke survivors.

This should be based upon improved integration, coordination and access for the community.

**Objectives**

- Selecting and establishing partnerships with appropriate Neighbouring Health providers
- Selecting and establishing partnerships with appropriate gymnasiums/fitness centres.
- Updating of relevant written material including client information and sharing with roll out health providers.
- Establishment of ongoing mentoring framework for fitness leaders.
- Selection criteria and referral process for clients to participate in the circuit training program
- Creation of client recruitment process
- Robust project process evaluation
- Robust outcomes evaluation

**FREQUENCY OF MEETINGS**

- Meet every month
- Extraordinary meetings as required

**QUORUM**

- 50% of Working Group members (not including Chair)

**REPORTING**

- All final documents must be approved by quorum
- Reports to members department heads/reporting line
- Meetings will be minuted and circulated to the membership within ten days of the meeting.
- Meeting agenda will be circulated to the membership one week prior to scheduled meetings

**Chair**

- Enhancing Stroke Care Project Manager

**Meeting Convenor and minutes**

- Enhancing Stroke Care Project Officer
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APPENDICES....................................................................................................................10

Appendices not included in this report – full guide available on request.
Acknowledgements

The Enhancing Stroke Care project involved establishing community based circuit training for stroke survivors, run at local gyms by fitness providers. Fitness leaders have been up skilled by a health service Physiotherapist. This community based model provides an intervention to improve the mobility and quality of life of stroke survivors. The project to date has been successful in its results for stroke survivors in gaining better quality of fitness working in partnership with both Mornington Peninsula Shire & Monash Sport Peninsula.

Fitness leader training is validated by Fitness Australia.

- **No modification to the fitness leader training package is allowed.**
- The Physiotherapist delivering the training must be registered with Fitness Australia.
- This ensures liability cover requirements are maintained for the fitness leaders delivering the stroke exercise groups.

Key contact at Peninsula Health Community Health

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Thank you
We would like to acknowledge the Victorian Stroke Clinical Network (VSCN) who have funded the development and implementation of the project.

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p. 03 9096 1297 | f. 03 9096 9206 | e. sonia.thomas@health.vic.gov.au

Forward
Your interest in the Enhancing Stroke Care project has been greatly received. By taking part in this project you are part of the community commitment in supporting stroke survivors in better post stroke care.

Please feel free to utilise the resources in the Appendix and modify and adapt to your local needs and systems.

Please acknowledge Peninsula Health on any paperwork you develop that is adapted from these resources.

Remember, the Training Package cannot be changed as it is registered with Fitness Australia and this ensures liability coverage for Fitness Leaders.
Background

“In 2006, the former Department of Human Services (the Department) assembled a team of Victoria’s finest stroke experts to assist in developing a plan for guiding our stroke care services over the next five to 10 years. They worked with health professionals, stroke care providers and the National Stroke Foundation. They also consulted with stroke survivors and their families. The result is the Stroke Care Strategy for Victoria.”

This circuit training model was developed by Peninsula Health Community Health and based upon the Frankston Community Rehabilitation Centre model. This program has demonstrated significant changes in walking speed and endurance and has serendipitously established an informal support network amongst participants and their carers (Kent and McKenzie 2007). Upon discharge from centre based circuit training, this model provides an organised community exercise groups for stroke survivors.

In 2013 funding from the Victorian Stroke Clinical Network (VSCN) is to be used to assist other health services in Victoria to take up the program.

We worked with neighbouring health providers of the Southern Metropolitan Region to expand and modify the Enhancing Stroke Care model to other geographic areas.

This guide will help you and your health service implement community based stroke circuit groups in your local catchment.

See Appendix 1 – The plan

Health Services who have implemented this model

- Peninsula Health
- St Vincent’s St Georges Community Rehabilitation Centre
- Caulfield Community Rehabilitation Service Alfred
- Knox Community Health Service
- Inner South Community Health Service

Benefits to the health service

- Long term referral options for stroke survivors
- Increased engagement with local fitness centres
- In line with the Victorian Active Service Model, assists stroke survivor to maintain & increase their level of independence
- Decreases avoidable re admission

Locations of independent Gyms currently running circuits
Examples of fitness centres delivering Stroke Circuit groups

- Mainstream private fitness centres
- Exercise Physiology service
- Not –for profit community recreation centres
- Local government Leisure Centres
- University fitness centre

Benefits for Fitness Centres and Fitness Leaders

- Increased client base
- Social responsibility
- Continuing Professional Development
- Increased links with Health services

Circuit Design

- One hour of exercise
- Eight exercise stations
  - Treadmill
  - Step Taps,
  - Sit to Stand
  - Toe Raises
  - Leg Press
  - Heel Raises Exercise Bike
  - Step Ups

Benefits to the stroke survivor

- Improves balance, walking, fitness, muscle strength
- Inclusion, returning to the community
- Sense of Independence
- Mental Wellbeing

Implement, Evaluate and Monitor

Secure support from Health Service decision makers including:

- Your VSCN representative (or set one up - stroke.clinicalnetwork@health.vic.gov.au )
- Health service Executive
- Management (Community Health, Inpatient and outpatient rehabilitation, Stroke ward)
• Team leaders
• Physiotherapy, Exercise Physiologist/allied health clinical lead
• Community advisory/representation group

Set up steering committee/working party
• Project officer/manager
• Any management or team leaders (Community Health, Inpatient and outpatient rehabilitation, Stroke ward)
• Consumer representative
• Fitness centre Team leader/manager
• A Physiotherapist representative from your Rehabilitation team
• Identify and appoint Mentor/key contact from your team to work with the Gyms/Fitness Centres

Identify community and fitness centres
• Draft a letter directing it to managers/decision makers of community groups, recreation centres & gyms
• Copy of sample letter attached see Appendix 2

Develop local identification, assessment and referral pathways
• Internal referral and external referral processes
• Self-referral processes (eg client calls intake service directly)
• A flow chart has been designed to help clinicians understand the stroke circuit referral process: see sample Appendix 12
• Client Assessment:
  o Stroke Circuit Physiotherapy assessment – Client may require GP sign off as well which is included in this assessment form: generic sample – Appendix 10. (Peninsula Health staff can find our branded form - print code 14602 MR157600)
  o Physical activity medical assessment was designed: see generic sample – Appendix 13. (Peninsula Health staff can find our branded form - print code 14179 MR 564150)
• Referral:
  o Fill out both forms & fax to client’s choice of Gym/Fitness Centre
• Mentor monitors circuit as required
• Mentor’s role & responsibility PD - sample appendix 14
Register health service physiotherapist with Fitness Australia

- An experienced and qualified assessor from Fitness Australia evaluates training programs before the training is certified. The assessor reviews the program against current industry standards and guidelines and ensures that the program provides significant evidence for the information being presented. The Stroke Circuit training we have designed is certified and therefore we are happy to pass on all documentation required for further presenters to be approved to deliver the program. PowerPoint presentation for fitness leaders - Appendix 9
- Contact at Fitness Australia:
  Francesca King
  Executive Assistant – Industry Development
  Fitness Australia
  The Health & Fitness Industry Association
  T. 03 9926 5100 F. 03 9645 0925
  E.francesca.king@fitness.org.au  W. www.fitness.org.au

Deliver training

- Training manual – Appendix 11
(And a reminder that Fitness leader training is validated by Fitness Australia:

- **No modification to the fitness leader training package is allowed.**
- The Physiotherapist delivering the training must be registered with Fitness Australia.
- This ensures liability cover requirements are maintained for the fitness leaders delivering the stroke exercise groups.)

Develop group timetable

- Discuss with your Gym the days & hours
- It is suggested the times are held in gym down times, for 1 hour at least once per week.
- A sample copy provided in - Appendix 8

Advertise/promotion

- Example brochure, poster attached Appendix 4 & 5
- Internal newsletters and bulletins as well as external such as your Medicare local or GP Network
- As for publicity, we found it very positive working with our Public Relations team and had them involved to complete the following:
  - To take photos & write the editorial article
  - Contact local newspapers
  - Place it on website, Facebook and or twitter
  - Distribute to other relevant groups such as Health Victoria
Evaluate clients at baseline and eight weeks

- Measures to evaluate the improvement Appendix 15 & 16
- Excel doc data recording sheet Appendix 17

Evaluate partnerships

- Design a partnership evaluation and use an online service such as “Survey Monkey” with all partners for evaluation collection
- Report on all data collated

Feedback to stakeholders

- Report including outcomes if available
Appendix 3:

Community Circuit Training for Stroke Survivors

Leaders’ Manual
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Introduction

This is a manual for fitness leaders providing circuit training for stroke survivors. The manual provides information on stroke and working with people who have had a stroke, as well as a description of the exercise circuit. The manual is designed to accompany a training workshop.
Stroke Background

What is a Stroke?
Stroke occurs when blood supply to the brain is interrupted. This may be due to a blockage in an artery (ischaemic stroke) or because an artery has broken or burst (haemorrhagic stroke). A blockage can be caused by a blood clot or a plaque.

When blood supply to the brain is disrupted, brain cells in the area do not receive oxygen and nutrients and die. The area of dead brain cells is called an infarct. Brain cells usually die within an hour, but if the blood supply is not completely cut off they can survive for a few hours.

Effects of Stroke
The way a stroke affects someone depends on the location and size of the stroke. For example, a small ischaemic infarct in the left side of the brain may cause some weakness in the right arm and leg, and difficulty with speech.

Common effects of stroke include:

- weakness
- changes in sensation
- decreased co-ordination
- muscle spasticity (uncontrolled, overactivity of the muscle)
- speech difficulties
- swallowing difficulties
- changes in cognition
- perceptual or visual problems
- emotional changes

Treatment
Treatment depends on what type of stroke has occurred. Generally, the cause of the stroke is identified and treatment is directed towards this. For example, a person who has had an ischaemic stroke (blockage) due to a blood clot may be given medication to break down the blood clot.

A very important part of treatment is reducing the risk of another stroke occurring. This is done through regular medical check ups, medications, advice on lifestyle changes (eg. smoking and diet) and sometimes surgery.

Many people require a period of rehabilitation after having a stroke. Depending on the severity of the stroke, their rehabilitation may be done in a hospital, at home or as an outpatient.

Recovery – Brain Plasticity
The brain has an ability to reorganise its neural connections (neural reorganisation) in response to a person’s experiences. After a stroke, recovery can occur due to a person’s natural repair processes (eg. reduction of swelling, breakdown of dead tissue, increased circulation to area) and through neural reorganisation. Neural reorganisation will occur no matter what the person does, but the amount and quality of the reorganisation depends on activities a person does.

Exercises Post Stroke
Why exercise after stroke?
Immediately after a stroke, muscles appear weak because the area of the brain that normally controls those muscles has been damaged. After a period of disuse, muscles begin to decondition, further contributing to weakness. Inactivity after stroke can also contribute to cardiovascular deconditioning. Exercises are designed to strengthen muscles, maintain/improve muscle length, improve muscle control, improve balance, improve cardiovascular fitness and encourage neural reorganisation.

The Clinical Guidelines for Stroke Management (2010) suggest that “stroke survivors should be encouraged to participate long-term in appropriate community exercise programs” (p43).

At what intensity should exercises be performed?
The American Heart Association (2004) has made the following recommendations for exercise following stroke:

<table>
<thead>
<tr>
<th>Mode of Exercise</th>
<th>Intensity</th>
<th>Frequency</th>
<th>Duration</th>
</tr>
</thead>
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<tr>
<td>Aerobic</td>
<td>40%-70% peak oxygen uptake; 40%-70% heart rate reserve; 50%-80% maximal heart rate; Rating of Perceived Exertion (RPE) 11-14</td>
<td>3-7 days per week</td>
<td>20-60 minutes per session (or multiple 10 minute sessions)</td>
</tr>
<tr>
<td>Strength</td>
<td>1-3 sets of 10-15 repetitions of 8-10 exercises involving the major muscle groups</td>
<td>2-3 days per week</td>
<td></td>
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For a copy of RPE see appendix 1

Signs of fatigue
Signs of fatigue when exercising are similar for stroke survivors as they are for the general population – decreased quality of movement, decreased technique, shortness of breath etc. Often stroke survivors find that their particular deficits following the stroke will become more evident as they fatigue. For example, they may experience increased weakness, spasticity, speech difficulty or mental fatigue.

One important consideration is identifying what the limiting factor is for the individual in each exercise. For example, the speed a stroke survivor with walking difficulties is able to walk on a treadmill is often determined by their walking ability rather than cardiovascular endurance. Therefore, when determining the appropriate speed it is important to look at how a person is walking.

Special Considerations

Cognition (thinking and remembering)
A person may have changes with their cognition following a stroke. This can include changes with attention, concentration, memory, reasoning and planning. The types of changes if any, depends on the location of the stroke. Following are some strategies that may help someone with cognition difficulties:

- remove distractions
- keep the activity simple
- break down complex activities into smaller tasks
- provide structure and routine
- provide written instructions

**Balance**
Balance can be defined as the ability to maintain one’s centre of gravity within their base of support (keep their weight on top of their feet). There are three body systems that provide information about balance:

- vestibular system (located in inner ear, detects head movements)
- somatosensory system (detects touch, pressure, joint position)
- vision

After receiving information from these systems, the motor system activates muscles to respond appropriately.

Balance is often impaired after a stroke and an important part of exercises is retraining balance. This is done by practising everyday movements which require balance. For example, standing up and sitting down, walking and stair walking.

**Managing Falls Risk**
A significant amount of stroke survivors are at risk of falling. It is important to ensure that exercises are made as safe as possible. Following are some strategies for reducing the risk of falls in an exercise group:

- Ensure participants are wearing correct footwear – runners or similar supportive footwear
- Ensure if a participant uses a gait aid, they do use it and have it close by ALL the time
- Cease the exercise if a participant is finding it too difficult
- Keep environment uncluttered

**Assisting Someone Up from the Floor**
If someone does fall, first aid procedure needs to be followed. If there are no injuries and it is safe for them to stand up you may need to facilitate this through demonstration and guiding words. On the next page are instructions which explain how to get up from the floor.
Getting Up From the Floor

Turn over to lie on your stomach. If unable, then lie on side. Work your way (creep/crawl) across the floor to a solid object (bed, couch, chair etc.) If another person is present ask them to move a chair closer to you.

1. Push up onto your hands and knees. Position yourself at the front, facing the chair.

2. Put your hands on the chair. Push forward and up until you are kneeling.

3. Put the foot of your stronger leg (or if equal strength then the leg closest to the chair) forward onto the floor.

4. Push up hard as you turn to sit on the chair. Rest until you recover from the fall.

Common Aids and Equipment
Ankle Foot Orthosis (AFO)

If there is significant weakness in the ankle muscles after a stroke, an ankle foot orthosis (AFO) may be worn. This is a splint that supports the ankle. There are several types of AFOs. Some types may need to be removed for particular exercises if they don’t allow enough movement at the ankle for the exercise. For example, an AFO without a hinge (pictured on left below) would need to be removed for heel raises.

*Standard “off the shelf” AFO*  
*Customised hinged AFO*

Slings

If there is significant weakness around the shoulder some people may wear a sling. This reduces pain and subluxation of the shoulder joint. It is important not to help someone by pulling their affected arm as this could injure their shoulder.

Walking Aids

A variety of walking aids may be used to assist a person’s mobility after a stroke. Common walking aids include a 4 wheel walker (4ww), single point stick (SPS) and 4 point stick (4PS)
Communication Difficulties

Difficulty communicating after a stroke can be due to many reasons including:

- difficulty understanding what has been said (receptive aphasia)
- difficulty producing language (expressive aphasia)
- problems forming words and sounds due to muscle weakness and/or decreased co-ordination of speech and breathing muscles (dysarthria)

Following are some strategies for talking with someone who has communication difficulties:

- Try to have your conversations under the best conditions. **Avoid noisy, distracting environments.**
- Ensure that if the person wears glasses, dentures, or a hearing aid, that these are available to him/her.
- Avoid confusion by having only one person speak at a time.
- Talk in short, clear sentences, using gesture if the person is having difficulty understanding.
- **Allow the person more time to speak** and avoid rushing them or trying to complete the sentence for them.
- Check to see if the person has understood you.
- Be willing to repeat or simplify your speech if it is not understood the first time.
- Encourage the person to be as independent as possible, however be available to assist them if asked or required.
- Encourage the person to communicate, even if this takes a long time.
- Encourage the use of alternative means of communication, such as gesture, writing, drawing etc. if needed.
Circuit Stations

Each of the following stations are to be completed for four minutes. Participants may take rests during that time as needed. It is recommended to have a one minute “change over”/rest time. The order of exercises may be modified to suit the layout of the gym where the group is being held. Prior to commencing the exercise group, participants will have been assessed by a physiotherapist who will advise on initial exercise intensity.

Treadmill

Purpose:

Improve cardiovascular fitness and quality of gait

Look out for:
“Scuffing” of the foot
Uneven step length
Posture

Alternative exercise:
Walking up/down corridor

Walk at a comfortable pace on the treadmill for four minutes
Step Taps

Purpose:
Improve balance, ability to weight bear on affected leg and foot clearance during walking

Stand in front of step. Place left foot on step and back onto the ground 10 times. Repeat with right foot. Do as many sets as possible in four minutes.

May need to place hand on bench/back of chair for balance

Look out for:
Posture
Swinging leg around step

Easier option:
Smaller step

Advanced option:
Do not use hand(s) for balance

Sit to Stand
Purpose:

Improve strength, balance and cardiovascular fitness, functional task practice

Sit forward in chair, with feet tucked under knees, shoulder width apart. Lean forward from hips and stand. Slowly return to sitting. Try not to push up with hands.

N.B. Start with feet even, but to provide increased challenge to one leg, place the opposite leg forward slightly. In the picture above the right leg is being challenged.

Look out for:
Leaning to one side
Poor control on sitting – ie. falling back into chair
Excessive use of arms

Precaution:
Someone that has recently (in last 3 months) had a hip replacement needs to use a tall chair to avoid hip flexion greater than 90°

Easier options:
Taller chair, use arm rests

Advanced option:
Shorter chair

Toe Raises

Purpose:
Improve strength of dorsiflexion muscles

Stand with back against wall, feet shoulder width apart about 10cm from wall. Slowly raise toes then lower back to ground.

Look out for:
Leaning to one side
Height toes can be raised

Easier option:
Sitting

Advanced option:
Do not lean on wall

Leg Press

Purpose:
Improve quadriceps strength

Sit comfortably with feet shoulder width apart. Slowly push evenly through both feet and return.

Look out for:
- Position of foot and ankle
- Posture

Precaution:
Not suitable for someone who has recently had a hip replacement

Advanced option:
Use only one leg

Alternative exercise:
Wall squats

Heel Raises

Purpose:
Improve calf strength
Stand on wedge and hold onto rail or similar for balance. Slowly rise onto toes then slowly lower heels.

**Look out for:**
Posture of foot and ankle
Excessive use of arms

**Easier option:**
Sitting

**Advanced option:**
Single leg heel raises (affected leg)

**Exercise Bike**

**Purpose:**
Improve leg strength and cardiovascular fitness
Pedal at a comfortable pace on the exercise bike for four minutes

Look out for:
Foot position / slipping off pedal

Advanced option:
Use only affected leg to pedal

Alternative option:
Recumbent bike
(NB. Recumbent bike is not suitable for someone who has recently had a hip replacement)

Step Ups

Purpose:
Improve leg strength and cardiovascular fitness, functional task practice
Place left leg on step. Slowly step up so both feet are on step. Place right leg on floor and slowly step down. Repeat with right foot on step first. May need to place hand on bench / bar for balance

**Look out for:**
Posture
Swinging leg around step

**Easier option:**
Smaller step

**Advanced option:**
Larger step
# Appendix 1

*Rate of Perceived Exertion Scale (RPE)*

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<td>7</td>
<td>Very Very Light</td>
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<td>19</td>
<td>Very Very Hard</td>
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Appendix 2
Measures to Evaluate Improvement

The following measures will be taken by a physiotherapist during the project at baseline, six weeks and 12 weeks to assess participants’ progress. These may be used after the project has finished for continued monitoring.

**10m walk test**

**Purpose**
Measures walking speed, step length and cadence

**Equipment Required**
- Walkway with 10m marked course and additional markers 2m before the start and 2m after the finish
- Stopwatch

**Test Procedure**

- The client stands at the first marker (2m behind start of course), and uses their regular gait aid.
- They are instructed to “walk at your comfortable walking speed to the other end of this walkway (or last marker), without stopping or talking until you reach the other end.” The tester walks beside the client, starts the stopwatch and commences counting steps as the first foot crosses the start of the 10m course. The stopwatch and counting stop as the client’s first foot crosses the end of the 10m course. Having 2m before and after the course avoids the effect of acceleration and deceleration.
- Number of steps and time taken are recorded. The following can then be calculated.

\[
\text{Speed (m/min) } = \frac{600}{\text{time (in seconds)}}
\]

\[
\text{Step length (m) } = \frac{10m}{\text{number of steps}}
\]

\[
\text{Cadence (steps/min) } = \frac{\text{speed (m/min)}}{\text{step length (m)}}
\]
Six Minute Walk Test

Purpose

Measures walking endurance

Equipment Required

- Stopwatch
- 20m walking track

Test Procedure

- The client stands at the start of the walking track and is given the following instructions:
- “You are now going to do a six minute walking test. The object of this test is to walk as quickly as you can for six minutes (up and down the corridor) so that you cover as much ground as possible. You may slow down if necessary. If you stop I want you to continue to walk again as soon as possible. You will be regularly informed of the time and you will be encouraged to do your best. Your goal is to walk as far as possible in six minutes. Please do not talk during the test unless you have a problem or I ask you a question. You must let me know if you have any chest pain or dizziness. When the six minutes is up I will ask you to stop where you are. Do you have any questions?”
- The stopwatch is started on the instruction to start. At six minutes the client is instructed to stop and the distance walked is measured. The stopwatch is not stopped for rest periods.
- During the test, use the following standard encouragements:
  - Minute 1: Five minutes remaining, do your best
  - Minute 2: Four minutes remaining, you’re doing well – keep it up!
  - Minute 3: Half way – three minutes remaining, do your best
  - Minute 4: Two minutes remaining, you’re doing well – keep it up!
  - Minute 5: One minute remaining, do your best
  - Minute 6: Stop there
30 Second Chair Stand Test

Purpose
Measures leg strength

Equipment Required
- 43cm straight back chair without arm rests
- Stopwatch

Test Procedure
- Place the chair against a wall, or ensure it is stabilised for safety.
- The client is asked to sit in the middle of the seat, with their feet shoulder width apart, flat on the floor, arms crossed at the wrists and held close to the chest.
- The client is instructed “when I say go, stand completely up, then completely back down. Do this as many times as possible in 30 seconds”. The tester may give a demonstration and the client is allowed a practice trial of one repetition to check for correct technique.
- The stopwatch is started on the instruction to go and the total number of chair stands completed correctly within 30 seconds is counted. More than half way up at the end of 30 seconds is counted as a full stand.
The Stroke-Adapted Version of the Sickness Impact Profile (SA-SIP 30)

Purpose
Measures perceived quality of life

Equipment Required

- Questionnaire
- Pen or pencil

Test Procedure

- Test may be completed by self-reporting or interviewer format.
- Questionnaire consists of 30 statements which are to answered “yes” or “no”.
- Clients can indicate that a statement is “not applicable” if they have never done the described activity. These items are excluded from scoring.
- Statements marked “yes” are counted, the sum of “yes” responses are divided by the maximum total score (30 - non-applicable items) and multiplied by 100 to give a percentage.
- Higher scores indicate more dysfunction.
The Stroke-Adapted Version of the Sickness Impact Profile

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<th>Dimension</th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Care &amp; Movement</td>
<td>1. I make difficult moves with help, for example getting into or out of cars, bathtubs</td>
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<td></td>
<td>2. I move my hands or fingers with some limitation or difficulty</td>
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<td>3. I get in and out of bed or chairs by grasping something for support or using a cane or walker</td>
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<td>4. I have trouble getting shoes, socks, or stockings on</td>
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<td>5. I get dressed only with someone’s help</td>
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<tr>
<td>Social Interaction</td>
<td>6. I show less interest in other people’s problems, for example, don’t listen when they tell me about their problems, don’t offer to help</td>
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<td></td>
<td>7. I often act irritable to those around me, for example, snap at people, give sharp answers, criticise easily</td>
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<td></td>
<td>8. I show less affection</td>
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<td></td>
<td>9. I am doing fewer social activities with groups of people</td>
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<td></td>
<td>10. I talk less to those around me</td>
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<tr>
<td>Mobility</td>
<td>11. I stay at home most of the time</td>
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<td></td>
<td>12. I am not going into town</td>
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<td></td>
<td>13. I do not get around in the dark or in unlit places without someone’s help</td>
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<tr>
<td>Communication</td>
<td>14. I carry on a conversation only when very close to the other person or looking at him or her</td>
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<td>15. I have difficulty speaking, for example, get stuck, stutter, stammer, slur my words</td>
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<td></td>
<td>16. I do not speak clearly when I am under stress</td>
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<tr>
<td>Dimension</td>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>NA</td>
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<tr>
<td><strong>Emotional Behaviour</strong></td>
<td>17. I say how bad or useless I am, for example, that I am a burden on others</td>
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<td>18. I laugh or cry suddenly</td>
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<td>19. I act irritable and impatient with myself, for example, talk badly about myself, swear at myself, blame myself for things that happen</td>
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<td></td>
<td>20. I get sudden frights</td>
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<td><strong>Household Management</strong></td>
<td>21. I am not doing any of the maintenance/repair work that I would usually do in my home or yard</td>
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<td>22. I am not doing any of the shopping that I would usually do</td>
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<td></td>
<td>23. I am not doing any of the house cleaning that I would usually do</td>
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<td></td>
<td>24. I am not doing any of the clothes washing that I would usually do</td>
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<td><strong>Alertness Behaviour</strong></td>
<td>25. I am confused and start several actions at one time</td>
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<td>26. I make more mistakes than usual</td>
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<td></td>
<td>27. I have difficulty doing activities involving concentration and thinking</td>
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<td><strong>Ambulation</strong></td>
<td>28. I do not walk up or down hills</td>
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<td>29. I get around only by using a walker, crutches, cane, walls or furniture</td>
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<td>30. I walk more slowly</td>
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<td><strong>Scoring</strong></td>
<td>Total “yes” responses</td>
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<td></td>
<td>Maximum total score (30 – NA items)</td>
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<td></td>
<td>Score (“yes” responses / total score x 100)</td>
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</table>
References


Jessie Jones C, Rikli R, Beam W (1999): A 30-s Chair-Stand Test as a Measure of Lower Body Strength in Community-Residing Older Adults. *Research Quarterly for Exercise and Sport* 79(2) 113-119


Speech Pathology Australia website: [www.speechpathologyaustralia.org.au](http://www.speechpathologyaustralia.org.au)
Stroke victims are getting physical

Many of the more than 1600 Australians who have had a stroke and left with the need for long periods of rehabilitation.

“A group exercise program run by Peninsula Health with green thumbs is helping stroke survivors improve their physical health and confidence after rehabilitation.”

The stroke circuit training program is seen as a “great step” option after stroke rehabilitation for those and seniors of any age. Participants are treated individually and exercise at their own pace.

The program, accredited by Fitness Australia, is held at venues in Parkdale, Bentleigh, Mornington and Remuera.

“Stroke Circuit Training helps stroke survivors get their ‘vital back on track’, Peninsula Health’s director of chronic disease and aged services, Linda Edwards, says.

“It is designed to improve muscle strength, flexibility, walking, balance and coordination. For most people, however, it’s much more than exercise and many enjoy the opportunity to socialise after their workouts.”

Miguel has been with the stroke circuit training group at Monash University’s Fairlight gym for five months.

Since having a stroke 18 months ago while on an overseas holiday, the 87-year-old Frankston resident has been working to repair strength and movement in his right hand side.

“The care I received at Peninsula Health’s East Devonport rehabilitation centre was wonderful and now the stroke circuit training program keeps me so active and independent,” Ms Billard said.

“There’s a real sense of comradeship because you’re with people who have similar problems.

“It’s been a long journey but I’m proud to say that I’ve progressed from wheelchair to walking with a walker and now I’m walking independently.

“There has been a huge improvement in my ability to carry out my daily activities and I’m back to gardening and helping with the housework. Most of all, I really enjoy the sense of purpose it gives me to come in to the gym twice a week and do these exercises that I’m doing something positive for myself!”

Stroke survivors offer! These circuit training programs are fantastic.

“Falls prevention efforts such as Circuit Training are a great tool to prevent falls and improve mobility. It’s also important to keep both your body and mind active,”

Miguel Billard, who works with the Mornington group, said participants “start to notice” once they were familiar with the equipment.

“Your mobility improves, they retain confidence and their daily activities become more manageable.”

For details about Peninsula Health’s stroke circuit training program 1300 605 781.