

# Brief Report



Research, Evidence-based and Information Services

## ***Project Walk™***

Reviewer	Claire Tochel
Date Report Completed	September 2004

***Important Note: This brief report summarises information on Project Walk™. It has not been systematically developed according to a predefined methodology. It is not intended to replace clinical judgement, or be used as a clinical protocol.***

### **Background**

Project Walk™ is an intensive programme of exercise and physical rehabilitation which uses an approach called the Dardzinski Method™ to treat people with spinal cord injury. It has the goal of full recovery for all clients who persist with the programme. It was set up in Carlsbad, California, USA in March 1999 by Ted and Tammy Dardzinski. It now has over 20 staff and has treated over 60 clients. The first international centre has recently been established in Te Awamutu, New Zealand.

The Project Walk™ website<sup>1</sup> indicates that the programme accepts clients who:

- have a spinal cord injury at any level from C-2
- are able to breathe independently
- are in general good health
- have approval from a physician to undertake intensive physical exercise including load-bearing activity
- meet weight for height parameters (not provided)

- are highly motivated with a positive attitude
- believe they can walk again
- provide a recent bone density scan with interpretation summarised by a doctor
- complete a Project Walk™ application form, a Health and Medical History form and a Service Level Agreement form.

### Description of Project Walk™ Programme<sup>1</sup>

Programme trainers actively encourage the client's muscle spasms in their affected limbs and create new ones either by movement or generating stretch reflexes (phase I: reactivation). The aim is to generate and increase neural activity which may initially be uncontrolled. The trainer resists the spasm and the client is trained to apply force through the resistance. Over time this is repeated, and clients attempt to regain control over the spasms while weight bearing activity puts stress on muscles and joints (phase II: development / stabilisation). As progress is made, the programme continues onto strength building in eccentric and concentric muscle contractions (phase III), and function and co-ordination (phase IV). The final phase of the programme's "five phases of recovery™" is balance and gait training which begins once stabilisation of joints starts to occur, and involves treadmill and exercise bike work. The programme continues until the client is satisfied with their progress but a suggested time frame of "two years plus" has been cited.<sup>2</sup>

### Staff qualifications<sup>1</sup>

Project Walk™ trainers are called Spinal Cord Injury (SCI) Specialists who must have a Bachelor's or Master's degree in exercise science, kinesiology or a related field, in addition to certification in First Aid and Personal Training. The physical demands of this role are said to be strenuous, and trainers must be able to lift a minimum of 31.75kg. They initially undertake six months paid apprenticeship as a SCI Recovery Specialist Aid at the centre, and then enter the second phase of training in the Dardzinski Method™ which may take one to three years. No professional qualifications are required to be taken on as a SCI Recovery Specialist Aid, who work alongside trained SCI Recovery Specialists undertaking individual sessions with four to six clients per day.

## Cost<sup>1</sup>

The Service Level Agreement indicates that the cost of the initial five-hour consultation and evaluation week (three hour sessions for five days) is US\$1,650. The first week in the programme costs US\$1,650 and \$100 per hour thereafter. The prescribed programme, and therefore the ongoing cost to the client, is worked out individually and depends on their spinal injury location amongst other factors. The average monthly fee is stated as being under US\$3,000. The Service Level Agreement requires that the client does not hold the company liable for any claim related to the client's participation in the programme "even if due to the negligence of Project Walk™".

Other programmes provided by Project Walk™ are also available but their cost is not provided on the website, e.g. Functional Gait Performance Program, Home-Based Programs (carried out using web-cams after an initial consultation and evaluation at the centre). At time of writing, 17 of the centre's 53 current clients are listed as being on the Home Program.<sup>1</sup> There are also two acupuncturists, a massage therapist and a nutritionist providing services at the centre, but costs are not listed.

At time of writing the New Zealand site includes a 'registration of interest' form which is almost identical to the USA application form, but no details of the cost of the programme.<sup>3</sup>

## Methods

The terms "project walk" and "dardzinski method" were searched in the following Ovid databases: Embase database from 1988- present; MEDLINE; CINAHL, Medline In Process; Other Non-Indexed Citations; MEDLINE Daily Update; All EBM Reviews – Cochrane DSR, ACP Journal Club, DARE, and CCTR. The search revealed 5 citations, however none related to the Project Walk™ programme.

The internet was searched using the terms 'project walk' and 'spinal cord injury' via Google<sup>4</sup>, revealing 384 hits. All principal sites were viewed (Google filters out similar pages from the same site, thus reducing the number viewed to less than 100) and information relevant to the Project Walk™ programme was obtained. Searching for 'dardzinski method' did not reveal any additional sites. All relevant sites and further sources of information identified as a result of internet searching are described in the following sections.

## Results

### Internet sites

The vast majority of websites retrieved were links to the company website or discussion fora provided by injury support groups or spinal cord information organisations (some examples are listed in table 1). Discussion threads commonly included questions about the programme from people with spinal cord injury, some of which were subsequently answered directly by staff of Project Walk™. Other common themes were opinions being posted regarding strong belief in, or scepticism of, the programme.

Another large group of website hits were individuals' personal experience of spinal cord injury with reports of progress made at Project Walk™. These tended to be on personal homepages or local newspaper sites (some examples are listed in table 2). Some publicity (newspaper reports, a TV programme segment) has accompanied or pre-empted the attendance at Project Walk™ of three clients from New Zealand (see Table 2). The New Zealand based Project Walk™ centre has come about as a direct result of these visits as it was not economically feasible for individuals to continue to visit the United States for ongoing therapy.

### Research

A research study, due to start in October 2002, was announced through press releases to various medicine or science news websites.<sup>+</sup> It was a collaborative project between Project Walk™, the Rehabilitation Institute of Michigan (RIM) (which provides another intensive rehabilitation programme for patients with spinal cord injury) and Wayne State University School of Medicine. The aim was to evaluate the success of the programme over an 18-month period. However it did not go ahead due to “proprietary issues” on the part of Project Walk™ (personal communication, John C. Elliot, Director of Physician Services at RIM). The Director of Research, Training and Development at Project Walk™ has since indicated that a study with a local researcher is planned, with more details to be released in the next few months. This is intended to measure whether three to six months in the Project Walk™ programme induces any changes in the brain, as evaluated by brain mapping (personal communication, Eric Harness).

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<sup>+</sup> e.g. [http://www.biospace.com/news\\_company.cfm?CompanyID=3806&SR=11](http://www.biospace.com/news_company.cfm?CompanyID=3806&SR=11)

### Evaluation of client outcomes from Project Walk™ website<sup>1</sup>

The company reports that it has an in-house functional research programme including recording of objective parameters (e.g. muscle circumference, weight lifted, and activity duration). They state that other outcomes are difficult to assess because they are subjective (e.g. improved endurance, increased strength perception).

After operating for four years, brief outcome data were made available on the Project Walk™ website on nine clients who had attended for between seven and ten months, seven of whom began in phase I, one in phase II, and one in phase II/III\*. Their spinal cord injury location ranged from C-4 to T-12, and included both ‘complete’ and ‘incomplete’ spinal cord damage. The date of their injury ranged from mid 1998 to early 2002. On day one of their programme clients had either no leg activity (n=5), spastic activity with no control (n=3) or spastic activity with very little control (n=1). At March 2003 one client had moved into phase II, five had moved into phase III (achieving “positional movement”), one was in phase IV (“controlled movement”) and two were in either phase IV or IV/V (“controlled movement, gait training, co-ordination”). Results of the objective measures mentioned as part of the in-house functional research programme were not provided.

The name, photograph, injury level and date for all Project Walk™ clients is posted on their website when they enter the programme, however comprehensive data on their progress is lacking. The intention to release six-monthly data updates has been stated, but the above-mentioned March 2003 data has not yet been replaced by more recent information.

A stated 86% success rate (cited in several of the above mentioned websites) for clients achieving leg movement at Project Walk™ refers to six out of seven individuals who had stayed in the programme for at least seven months. However, this does not match the data in the accompanying table on the Project Walk™ web page which indicated that there were nine clients who had been there for seven months or more at that point.

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\* there is some inconsistency between the text and the table on the website – information here is taken from the table

### Other sources of information

In July 2004 one of the Project Walk™ founders and their Director of Research, Training and Development gave a presentation to the Annual Meeting and Scientific Program of the American Association of Sports Physicians. A copy of the presentation slides has been made available to ACC.<sup>2</sup> These indicate that 85% of clients are male and that 60% of clients have spinal cord injury at the cervical level, 18% at the high thoracic level and 22% at the low thoracic level. Delegates were also invited to visit the Project Walk™ centre as part of the meeting. There were no outcome data provided.

A discussion article from the Pacific College of Oriental Medicine was found on the addition of acupuncture to the Project Walk™ programme.<sup>5</sup> It stated that approximately 30 clients at Project Walk™ had received acupuncture since April 2003, and indicated that positive benefits had been achieved. However, no specific results or client outcomes were presented.

### Discussion

To date there has been no systematic evaluation of the effectiveness of the Project Walk™ (or Dardzinski Method™) programme for people with spinal cord injury. There has been no independent evaluation of any aspect of the programme. While the company has treated over 60 clients with a range of severity and location of spinal cord injury during its five-year operation, only brief outcome data have been released on nine of those clients who had been with the programme for between seven and ten months in March 2003. This data indicates that all clients who were still with the programme after this duration made progress (n=9), and most had achieved some controlled or positional movement after being unable to at baseline (n=8). A smaller number progressed to standing and / or gait training (n=2). There appear to have been 25 clients who would have been in the programme for at least seven months at March 2004, and it would be of great interest to see the outcome data for this size of group, but this is not available at time of writing.

Clients are carefully selected according to explicit entry criteria (listed in the background section) but no information was found on how many are refused entry to the programme, or which eligibility criteria they fail to meet. Clear information is also lacking on those who start the programme and do not see it through to the medium or long term – start dates are provided on the company website for most clients (current and former) but not end dates. Some

pictures and video clips are provided indicating client progress, but standardised outcome data is only available on a small number of clients so far. The discussion fora listed in Table 2 suggest that the high cost of long-term treatment (the equivalent of approximately NZ\$4,550 per month on average) is a significant factor as to why some individuals do not persist with the programme, but there may be other reasons.

The Project Walk™ data, as presented on their website, contains inconsistencies. This may simply be out-dated information, but adds weight to the need for independent and validated reports to be produced.

The “in-house” research programme states that factors such as increased stamina or perception of strength are not easily measurable. This is unfortunate, as these ‘subjective’ factors are certainly measurable using qualitative or quantitative research methods and would provide very important information on the clients’ progression through the programme.

Without independent evaluation of the project, or more complete data being released by the company it is impossible to state with confidence how effective the programme is. At this stage the relative importance of a number of important factors in achieving progress is not clear. These may include: characteristics of individual clients selected for the programme (e.g. motivation, personality, previous activity level); characteristics of the individual’s spinal cord injury (e.g. location, severity, duration since injury) and different aspects of the programme (e.g. duration, content, intensity of sessions).

## Conclusions

It is not possible to clearly state the effectiveness of Project Walk™ for treatment of spinal cord injury due to insufficient evidence. Preliminary data provided by the company on a small number of clients who were with the programme for over six months indicate that they all made some progress. However the fact that this data contains inconsistencies, has not been updated since its release 18 months ago, and that no independent evaluation of any aspect of the programme is available gives some cause for concern.

The positive philosophy of the programme and anecdotal indications of success are likely to continue to attract high levels of interest from individuals with spinal cord injury, particularly where traditional approaches to their therapy or rehabilitation have reached a dead-end.

## References

1. [www.projectwalk.org](http://www.projectwalk.org)
2. Ted Dardzinski and Eric Harness. *Project Walk™ (The Dardzinski Method™) and the Mechanisms Leading to Spinal Cord Injury Recovery*. Presentation to the American Academy of Sports Physicians 2004 Annual Meeting / Scientific Program. July 30<sup>th</sup> 2004; San Diego, California.
3. [www.projectwalk.co.nz](http://www.projectwalk.co.nz)
4. [www.google.co.nz](http://www.google.co.nz)
5. [http://www.pacificcollege.edu/alumni/newsletters/winter2004/right\\_direction.html](http://www.pacificcollege.edu/alumni/newsletters/winter2004/right_direction.html)

Table 1. Examples of on-line discussion groups referring to Project Walk™

Provider	URL
Care cure community – a service provided by the W. M. Keck Center for Collaborative Neuroscience at Rutgers University	<a href="http://carecure.rutgers.edu/spinewire/index.html">http://carecure.rutgers.edu/spinewire/index.html</a>
The Virtual World Congress on Disabilities (Virtual WCD) a forum for persons with disabilities and those involved in their care and development	<a href="http://www.vwcexpo.com/bboard/messageread.cfm?show=98&amp;message_id=m7559069">http://www.vwcexpo.com/bboard/messageread.cfm?show=98&amp;message_id=m7559069</a>
The Spinal Cord Injury Resource Center	<a href="http://www.spinalinjury.net/cgi-bin/ikonboard/topic.cgi?forum=5&amp;topic=25">http://www.spinalinjury.net/cgi-bin/ikonboard/topic.cgi?forum=5&amp;topic=25</a>

Table 2. Examples of individual stories referring to experience of Project Walk™

Content	URL
A New Zealand equestrian who visited Project Walk™	<a href="http://tvnz.co.nz/view/news_health_story_skin/239754%3fformat=html">http://tvnz.co.nz/view/news_health_story_skin/239754%3fformat=html</a>
A New Zealand hang glider who planned to visit Project Walk™	<a href="http://onenews.nzoom.com/onenews_detail/0,1227,201544-1-7,00.html">http://onenews.nzoom.com/onenews_detail/0,1227,201544-1-7,00.html</a>
A New Zealand rugby player who planned to visit Project Walk™	<a href="http://www.nzherald.co.nz/storydisplay.cfm?storyID=3562653&amp;thesection=news&amp;thesubsection=general">http://www.nzherald.co.nz/storydisplay.cfm?storyID=3562653&amp;thesection=news&amp;thesubsection=general</a>
A musician who exercises daily at the USA centre	<a href="http://www.schmidtart.com/artists/miragliotta/bio_miragliotta.html">http://www.schmidtart.com/artists/miragliotta/bio_miragliotta.html</a>
Personal story of a former client	<a href="http://www.chrisackerman.com/pages/2/">http://www.chrisackerman.com/pages/2/</a>