



TGR Therapeutic Golf Rehabilitation™

By Sari Shatil, MSc PT, Physiotherapist / Proprietor (Neuphysio);
Founder TGR Therapeutic Golf Rehabilitation™



TGR Therapeutic Golf Rehabilitation™ was pioneered in 1997 as a novel program that uses golf as a tool to improve balance and increase community participation. Participants must have an interest in golf, but no experience is necessary. Utilizing a team comprised of a Physiotherapist and a certified Golf Professional, TGR helps patients attain the goal of effective return to an active lifestyle through safe participation in golf. All aspects of treatment are designed to achieve this goal. The role of the physiotherapist is to prescribe and implement a treatment program based on the golf professional's recommendations. The role of the golf professional is to suggest swing modification and equipment that will improve patient performance. Participants receive individual physiotherapy combined with golf lessons in small groups. Treatment takes place at Neuphysio (private outpatient practice) and at East Park Golf, a local, accessible golf course with a driving range. Social engagement, positive experiences and a fun atmosphere, combined with physiotherapy and swing modification, result in improvements in balance, golf performance, and quality of life.

One innovative aspect of TGR is that it uses sport in a rehabilitation setting to improve physical and psychosocial outcomes. TGR meshes sport specific physiotherapy with neurologic physiotherapy. It uses the fundamentals of golf (bilateral activity, weight transfer, upright postural control, trunk rotation, grasp and release, and speed of movement) to rehabilitate persons with significant impairment and disability. Melding biomechanics of sport with rehabilitation principals (mass practice, neuroplasticity, motor control, motor learning and training principles) allows people to return to activities that they are passionate about, such as golf. Participants have typically suffered a neurological event such as a stroke, are living with chronic disease such as pain, have MS or Parkinson's disease, or have been involved in trauma resulting in multiple fractures, brain injury, spinal cord injury or amputation. After initial goals of walking and ADL have been reached, a program such as TGR brings meaning to the rehabilitation process. Providing physiotherapy in an outdoor golf setting is enjoyable to patients and treating professionals alike. Feedback and practice occur in a true to life environment and comfort with community participation increases.

One of the most enjoyable aspects of TGR is witnessing the change in people's confidence and outlook through the course of the six week program. Often, participants have heard that they may

never walk independently; discovering that they are capable of golf opens up a world of active leisure and social interaction.

The challenges that face TGR physiotherapists include the need to study the biomechanics of golf and understand the varied skill set that makes for a successful golf practice. TGR physiotherapists work closely with golf professionals and require access to a driving range. Fostering relationships within the local community is essential. Effective communication between both parties allows the pro to understand physical restrictions, and the physiotherapist to understand swing mechanics. One of the most challenging aspects of TGR is to establish how to modify the individual's swing so that they can succeed. For example, at what point does a person play with two hands versus one hand; when do you change the handedness of a golfer; what clubs and grips do you use; is it better to facilitate trunk or hip rotation; when do you play with the support of a walker; and is a weight transfer even appropriate? Facilitating the proper swing changes through physiotherapy that ensures available range, strength, balance, coordination, postural control and motor learning is critical to patient success. This is a complex and challenging skill.

TGR is the only program of its kind in Canada. At the present time, it is available in London, Ontario. This program has had a positive effect on our community by assisting people with disability to return to an activity that they are passionate about without stigma. Graduates of the program can be found golfing with one arm or sitting in their wheelchairs at local courses. TGR has been featured as a public interest story in local, provincial and national media. People come from across Southwestern Ontario to benefit from the opportunity. Awareness of disability and the need for accessibility in our community

has been heightened. Local golf courses have upgraded their own accessibility with ramps and paved access to driving ranges in order to better support their members and the public at large. The creation and development of TGR has been a purposeful and rewarding career long endeavor. The concept was visualized in 1996, when neurosurgical patients in acute care identified return to golf as a primary goal. Driven by their passion, I brought a golf club into the hospital and was amazed to see the positive result. Using golf in rehabilitation increased patient motivation and participation in physiotherapy. Perhaps it could also improve outcomes.



At that time, a review of the evidence found no papers on the use of golf in rehabilitation, specifically post stroke. A pilot study was designed to examine the effects of TGR on balance and quality of life in people with chronic stroke (Shatil and Garland 2000, Shatil et al 2005). Results demonstrated significant improvements in balance and quality of life that were not present in a control group. TGR was implemented as a summer program for persons with stroke. It has since expanded to assist any person with a physical limitation to their golf performance. Over 120 persons have participated in TGR since its inception, and all have safely returned to golf activities and improved their steadiness along the way. Research on the benefits of TGR continues, with outcome measure data collected each season.

The vision of TGR is that golf and other sport specific activities are available for interested patients across the continuum of care on a national scope. Future plans for this innovative approach include training rehabilitation professionals so that they may implement TGR programs in their own communities. For those interested in learning more, TGR will be presented in Whistler BC at Congress 2011 as part of a 60 minute interactive workshop.

References

1. Shatil SM, Garland SJ, Ivanova T, Mochizuki G. *Effects of Therapeutic Golf Rehabilitation on Golf Performance, Balance, and Quality of Life in individuals Following Stroke: Pilot Study. Physiotherapy Canada* 2005; 57:101-112.
2. Shatil SM, Garland SJ. *Strengthening in a Therapeutic Golf Program for Individuals Following Stroke. Special Topics in Geriatric Rehabilitation.* 2000; 15(3):83-94.