

Sport as Balance Therapy

BY SARI SHATIL, PTMSC

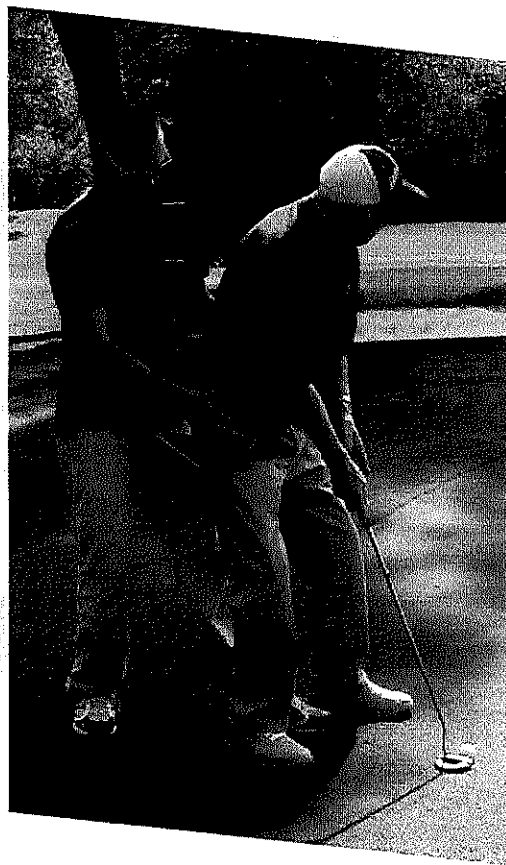
Sport and leisure activities are components of a healthy lifestyle. Not only is sport-specific training beneficial for the rehabilitation of athletes, but it can also be an important part of therapy regimes for non-athletes. Participation in sport-specific training can add interest to the rehabilitation process.

Just as physiotherapy helps with sport, so sport can help with physiotherapy. Indeed, sport can be therapy. Following are some examples of how sport is used as part of rehabilitation and specifically how golf, yoga and Tai Chi can help with balance.

Golf and Balance

Golf is becoming increasingly popular with all ages. Perhaps Tiger Woods' youthful successes and popularity are partly responsible for the many children's golf camps throughout Canada. Business people and professionals take up golf in adulthood as a networking tool, and athletes who once participated in more demanding sports often take up golf in middle age. Retired people have more time to spend on the golf course. Some of the benefits of golf are:

- increased flexibility, particularly of the trunk and the hips
- improved core and extremity strength
- improved balance and postural control
- increased cardiovascular fitness
- improved coordination and speed of movement
- increased bilateral capabilities



As a form of therapy, Therapeutic Golf Rehabilitation or TGR integrates golf instruction, proper swing mechanics, physiotherapy and exercise to improve balance and other physical variables. My own research has confirmed TGR's effectiveness in improving balance with stroke survivors. (See Lauren La Rose's Canadian Press article "Back in the Swing of Things" at www.healthzone.ca/health/articlePrint/672562.)

A study in 2010 comparing golfers to control participants found that the golfers had significantly better static and dynamic balance. The authors hypothesized that the coordinated movement and the weight transfer required in the golf swing, as well as the need to walk uneven fairways are contributing factors to golfers' superior balance. Whatever the explanation, it is apparent that golf can be used as a tool in balance training. And further studies might also confirm the corollary: that balance training improves golf performance.

Yoga and Balance

Yoga encompasses moral and ethical precepts, mental attitudes and physical practices. The goal of yoga is to improve the health and functioning of both body and mind. The Hatha form, involving standing and lying postures, is most popular in the West.

The benefits of yoga include improved strategic planning (planning and execution time, increased flexibility and muscle force or torque, increased vital capacity, oxygen uptake and aerobic capacity, and increased motor speed and reaction time. These benefits increase with motivation, frequency of practice, and time.

Yoga therapeutics is the application of yoga for health benefits and focuses on relaxation, meditation and modification of traditional

postures. It is commonly used as a therapy adjunct for persons with neurological diseases.

Yoga has been shown to improve balance in many patient populations, including those with osteoporosis or rheumatoid arthritis, older adults, and individuals with post-stroke hemiparesis. Healthy young adults practising Bikram yoga have been observed to substantially improve their balance, leg strength and muscle control.

Tai Chi and Balance

Tai Chi emphasizes mind and body harmony, combining exercise, meditation and self-defence. This low-impact, moderate-intensity exercise consists of rhythmic movements, trunk rotation and constant weight shifting. Performance of Tai Chi requires coordinated sequencing of body segments, awareness of trunk alignment, deep breathing and mental concentration. With precise, smooth, flowing movement that uses "internal energy," it slowly and gently leads into complex postures performed with a lowered centre of gravity.

The health benefits of practising Tai Chi include:

- improved kinesthetic sense, muscular strength, balance and motor skills
- increased cardiovascular and respiratory function
- enhanced mood, coping skills and self-esteem
- improved motivation through relaxation
- reduced blood pressure, stress, anger, fatigue, depression and hyperactivity
- enriched quality of life

Tai Chi has been used as a tool for rehabilitation in persons with traumatic brain injury, dementia and Parkinson's disease. It has been found to be beneficial in prevention of falls programs for the elderly and in standing balance in stroke survivors.

Summary

Not only is sport engaging and motivating, but it can also be used as a tool throughout the rehabilitation process. Participation in sport-specific training as part of rehabilitation is beneficial in improving outcomes. As the experts in exercise prescription for injury and disease, physiotherapists may incorporate golf, yoga or Tai Chi activities into treatment. Given the growing evidence supporting integration of sport and leisure into physiotherapy, funding for such physiotherapist-directed programs can be accessed through EHB, MVA and LTD insurers. A clear path to improved physical outcomes, citation of the literature demonstrating the same, and expression of the unique motivational aspect of sport will help solidify a positive funding outcome. ■

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