

# Recreational

## Golf specific rehabilitation of seniors — trends and latest developments

By Ramsey McMaster

I have observed that there is heavy emphasis on trying to enhance the performance of juniors, elite amateurs and young tour players but there is little focus on the needs of the most important group for the golf industry the '40 plus' senior golfer. These golfers generally spend a fair amount of their income on green fees, club memberships, golf holidays, golf lessons and golf equipment but also many of these '40 plus' golfers encourage early participation of their children and grand children to the sport of golf. In the past 15 years I have worked closely with Golf Australia and the PGA of Australia to identify the trends and needs of senior golfers.

As the population ages we expect to see the imbalances of young versus old continue to increase.

It is clear from these demographics that the golf population has an imbalance of membership age with a heavy emphasis on the 45 to over 65 years old.

### GUR — golfers under repair/rehab

The professional relationship between the governing bodies has made a strong commitment to 'keep' these golfers in golf. As a result of this we have established an integrated PGA coach and sports science program called:

**GUR** — Golfers Under Repair/Rehabilitation.

Personally I have found the GUR program to be an enlightening experience as I have learned tremendously from PGA Coaches their approach to functional and dysfunctional movement and their strategies to improve motor function control and kinetic chain sequencing.

If you think about it, as a physiotherapist, when a keen golfer who comes to your clinic with a lumbar disc lesion, knee replacement, an arthritic hip or even a shoulder dysfunction most of us would never consider referring that golfer to a PGA Professional as part of their multidisciplinary assessment. Many of us would be surprised at their use of technology in initial and ongoing assessment e.g., 2D and 3D analysis that these golf professionals can give and send onto the therapist via internet or DVD.

# golfers

The major impact that the PGA Professional can provide is unique muscle recruitment swing drills which can be used as part of a sequenced rehabilitation plan that can result in an earlier return to golf. This is not the only groundbreaking area that PGA professionals can help the specific rehabilitation of the golfer but also modified swing planes, customised club fitting and modified golf rounds e.g., three or six hole rounds instead of 18 holes are all part of their program.

## Golf motor patterns

The close relationship that we have had in integrating physiotherapy and coaching has allowed us to start to identify motor pattern identification. From a clinical point of view we have found that the golfer's clinical motor pattern matches their golf setup and swing motor patterns.

## Three dimensional analysis and physiotherapy

A major breakthrough is the use of 3d analysis. This really is the missing link to clinical pathways for golfers and it is starting to be used in other clinical areas to assess and diagnose postural dysfunction on a day-to-day basis.

In Melbourne, we extensively use this type of analysis not only for elite golfers but for serious '40 plus' golfers who want to improve their performance or have an early return to golf after injury. Internationally renowned biomechanist Ryan Lumsden works closely with physiotherapist and PGA coaches around the world and interstate in Australia in a three way team approach to rehabilitate golfers of all ages and levels. (See story at right of page)

## Conclusion

It is clear from the demographics and the golf population we see at Melbourne Golf Injury Clinic [including our work in Asia, USA and Europe] that there will be an influx of senior golfers around the world looking for golf specific rehabilitation.



The following demographics have been identified by Golf Australia

### Age Demographics

Membership Age	2004
<25	10%
25-34	9%
35-44	16%
45-54	22%
55-64	24%
>65	20%

I think it is our responsibility to work with these new members of the multidisciplinary team, embrace their ideas, diagnostic tools and provide a more sophisticated approach to rehabilitating senior golfers.

It's fun and stimulating, and if you are out on the golf course or practice range, it's now research and development. Not a bad place to practice physio.

Golfers under Repair CD Rom by Ramsay McMaster  
[www.golfmed.net](http://www.golfmed.net)  
Free downloads  
[www.spikeyball.com](http://www.spikeyball.com)

# 3d analysis as an assessment tool

Ideal posture and range of motion (ROM) underpin the ability to move efficiently during the swing, and any physical limitations tend to compromise dynamic postural control, with coordination and timing being influenced as a result. An assessment of dynamic ROM through 3D motion analysis, together with a physical screening, is an important part of the process to identify such physical limitations so that appropriate programs can be implemented.

Common observations when evaluating the senior player is poor posture and alignment of the spine within their address position, generally leading to limited trunk rotation during the swing. Due to this, the rotational relationship between the pelvis and upper torso is affected, making the correct sequence of body segment involvement (which is crucial for 'efficient' technique) difficult to achieve.

When we relate to sequencing and timing and the movement patterns required within the swing, the importance of flexibility as a biomechanical parameter is highlighted due to the influence of muscle and tendon elasticity on elastic energy storage and force production. However, the loss of flexibility associated with the ageing process tends to limit the potential energy storage and is partly the reason why a loss of distance is a typical complaint of the ageing golfer.

Thus, specific postural awareness and flexibility exercises are an important part of any program. Golf specific exercise drills are integrated with biofeedback training to aid the correction of posture and the learning of new 'feels' associated with swing changes. Through these interventions technical development is accelerated, which in turn helps prevent injury associated with poor movement patterns — promoting longevity within the game and 'keeping golfers in golf'.

Ryan Lumsden is the Australian Manager for Golf BioDynamics. An accomplished junior golfer Ryan hails from St Andrews in Scotland. He completed a Sports Science Degree majoring in Biomechanics. He is based in Melbourne Australia.