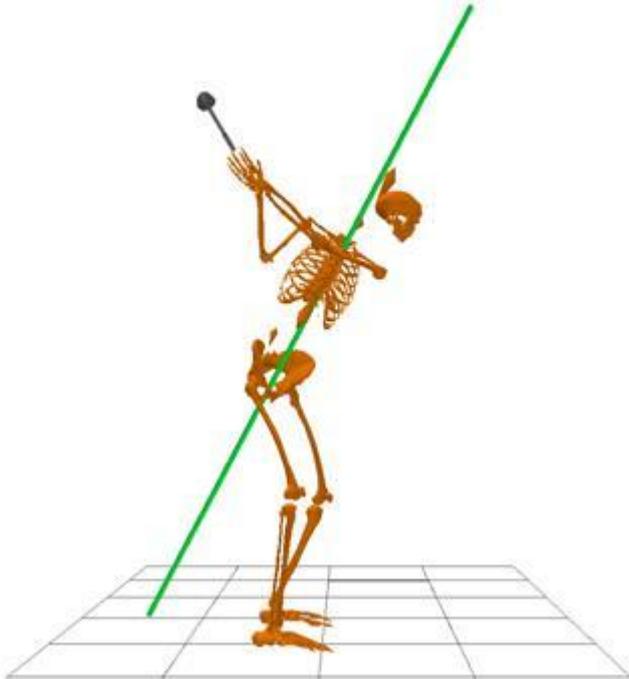


GOLF INJURIES

Physiotherapy has developed over the years and has become an integral part of conditioning for golfers of all levels. Physiotherapists and golf coaches utilise video analysis to aid diagnosis of musculoskeletal injuries and performance enhancement. Sophisticated technology in the form of computer software can analyse golf movements. Techniques, as well as position of pelvis, body sway, lateral movement and rotation can be studied. 10



Common areas of injury for golfers are elbows, knees, wrists and lumbar spine. The key to successful treatment of these injuries is to bear two things in mind: the human body is a chain of movement; one area can not move without another area being affected and each human being is an individual with his or her own individual patterns of movement. 18, 19

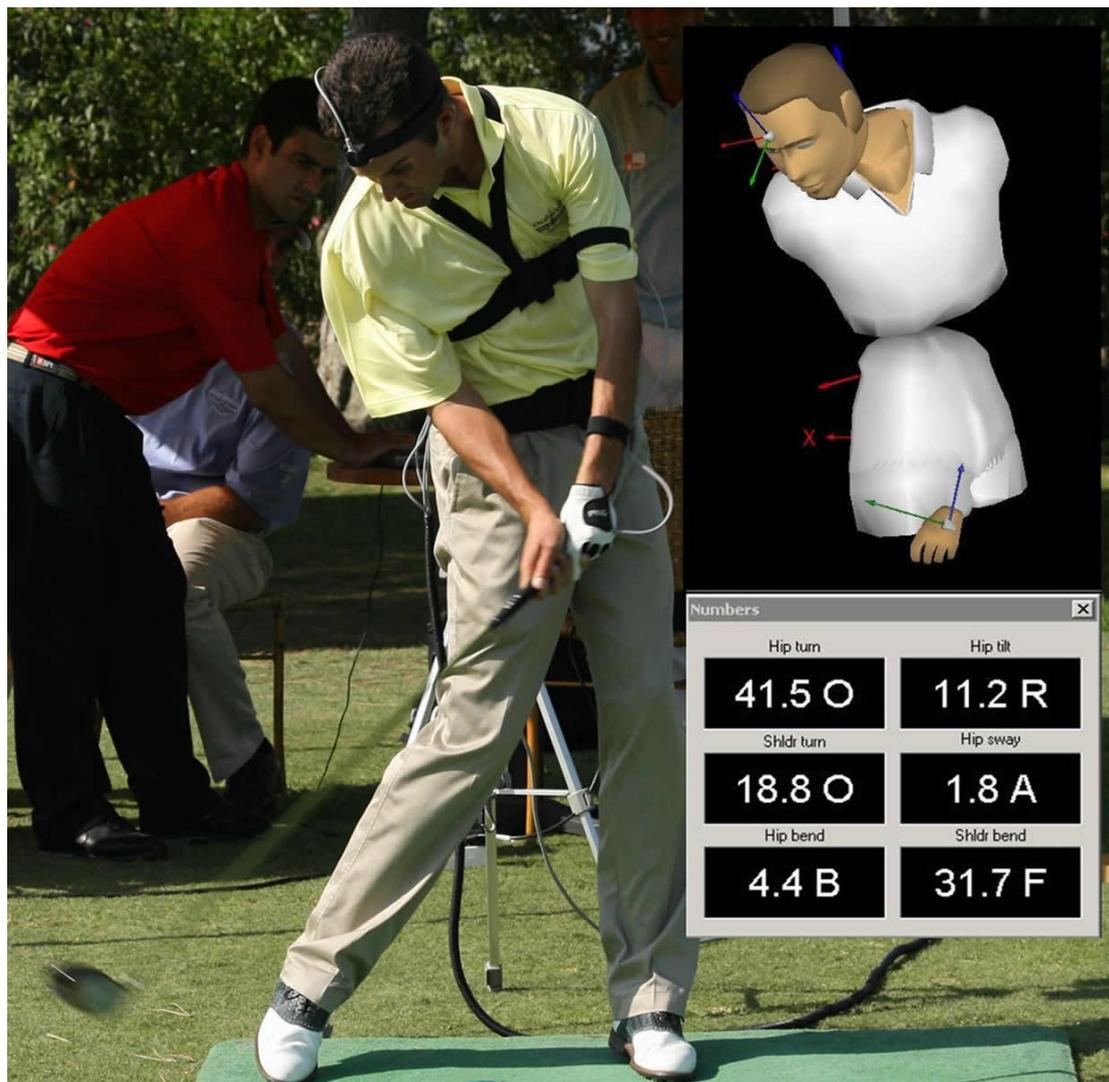
There are no recipes for treatment of any sporting injury, especially in golf, as each individual moves so differently. The whole chain has to be analysed and it helps if this can be done in collaboration with the golf professional or coach. The use of video analysis can be very helpful. If that is not available, the patient can bring in a club for analysis in the clinic. The physiotherapist, although not necessarily a golf expert, can analyse the motion from a therapeutic perspective. On another level, those who treat elite or professional level golfers may already be working in conjunction with the golf coaches in not just injury prevention but in performance enhancement.

Video analysis, used by the coaches, is an excellent tool in biomechanical assessment. Slow motion, pausing at various points of the swing, viewing the golfer from front, back and side views can enable the coach to assess the golfers downfalls, or indeed their strengths. When the physiotherapist is involved with these packages, anatomical anomalies can also be picked up. 10

For example, analysis can reveal common problems such as reduced stability at the pelvis, increased or reduced thoracic kyphosis, lumbar lordosis, reduced spinal rotation, increased knee rotation and so on. There are an infinite number of potential combinations of deficiencies, laxities, hypomobilities that could lead to musculoskeletal problems. 1

TYPICAL PROBLEM AREAS

The Flexible Golfer with Poor Control



One example might be the hypermobile young golfer with poor pelvic control, poor core and hyperextending knees. He will complain about low back pain, shoulder pain and perhaps knee pain. Perhaps in an overenthusiastic attempt to become a golfing legend, his technique has developed into a fast highly accelerated blast at the ball with an oversized club head. He may over rotate and hyperextend his lumbar spine on follow through, he might have a huge swing and which takes his leading shoulder into a position of instability and his medial ligaments of his knees may become stretched with excessive rotation and hyperextension. 10 Therefore there are many areas of

potential pain and damage, especially with repeated trips to the driving range and hitting hundreds of balls each week. 3,6,14

In this case, improving the core is essential to stabilise the trunk and the lumbar spine. 8,13,20. However, sitting on a gym ball and doing several minutes of planks everyday will only provide limited benefit.

The rehabilitation process has to be dynamic, because golf is a dynamic game and it has to be sport specific in order to mimic some of the joint forces produced in the game.

So the first stage with our young golfer may be to slow things down and start with his position addressing the ball in stance. Video will be useful for him to see visually what his position looks like and so that he can start feeling it proprioceptively. He can practice addressing the ball with a neutral spine and start to work on his multifidus and transverses abdominus activation in this position. It might be worth adding in a bit more of a challenge after this stage, for example, ask him to kneel on a gym ball whilst addressing the ball. This will remove some of his stability and increase his awareness of his pelvic position. 1, 8, 20



Once he has improved his stance, he can start to add in a shortened and slow version of his swing, with a club and as his control continues to improve, he can increase the speed and the magnitude of the swing, only progressing as his control improves. 2. To further enhance his proprioception and control, he might stand on a Bosu and address a ball, or he might be asked to swing the club standing on one leg or with one leg on a Bosu. Single leg work will help to improve his gluts and medial quads also which should help stabilise the knees. 16



As for the shoulders, hopefully as he strengthens his trunk, stabilises the pelvis, he might find the club works more effectively for him as he needs to generate less power from the shoulders. However, traditional methods of shoulder stability can be introduced also, such as gym ball press-ups and push-up type exercises as well as rotator cuff strength work.



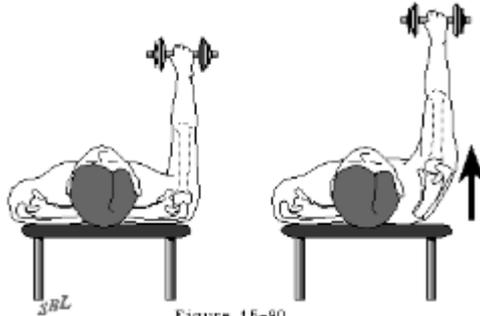
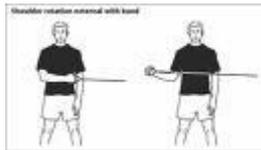


Figure 16-90

The coach can work on ways to maximise his precision in connecting the club head with the ball. If he is more precise, then he should require less force to send the ball up the fairway. This might include subtle changes in his grip or in the position and loft of the club head, changing the arc of motion of the club and many other small details.

In terms of trunk strengthening, the use of theraband is effective. The band can be tied to something solid and the golf swing can be mimicked with the band creating resistance.



Each stage should be discussed and goals should be set for each stage of the process. This is likely to be a relatively long-term project. A word of caution, however, is that occasionally, when changing the kinematics of the golf swing, the game can be affected and not always positively until the golfer adjusts to his new “position”.

The Stiff Golfer with Poor Range of Movement

Another example of a typical injured golfer is that of the middle aged lady with the stiff thoracic spine.



She has poor thoracic rotation and overcompensates by increasing her range of movement at the shoulders. She needs a bit of extra power to make up for the lack of momentum from the trunk so she grips harder and extends her wrists on her backswing, this can lead to lateral epicondylitis or tennis elbow. Incidentally, it is more common for a golfer to suffer from tennis elbow than golfers elbow.⁶

Conversley, the elderly osteoporotic female golfer has to be careful of rib injuries from over repetitive over rotation of the thoracic spine.

Once again, with our middle aged stiff lady, not only do we have to analyse the whole kinetic chain, but we have to analyse her own individual technique.

In her case, we might have to go back to basics and start with putting. The putting technique focuses on pendular motion. Standing with a relatively flexed thoracic spine holding a putter and swinging it from side to side is a good way to re-educate thoracic rotation.



A progression might be standing with the club under the arms and rotating from side to side, preferable with knees and hips flexed and with a little thoracic flexion in order to target the thoracic spine. This is a technique that many golfers will be already familiar with as it is traditionally used as a warm up exercise. 1, 4, 17



To combine core stability and range of movement and to strengthen the trunk, these can be done sitting on a gym ball, with a club in hand.



Shoulder stability exercises can be performed on the ball in this case also.



To add to the prevention or cure of the epicondylitis, eccentric wrist extension exercises can be made sports specific.



This exercise involves stopping at the top of the backswing and/or follow through and extending the wrists concentrically and slowly eccentrically with club in hand. During this exercise, the golfer can be instructed to maintain a good activation of the core muscles, stand on a Bosu or kneel on a gym ball. 4, 15

In time, the combination of these exercises should not only help to reduce the symptoms the golfer is suffering in the short term but will hopefully be a preventative measure long term. The golfer during the process of rehabilitation may become more aware of their own body and its limitations and improve their overall condition. Obviously, conditions like osteoarthritis and osteoporosis will limit the extent of the progress that can be made.

This is by no means an exhaustive list of exercises, nor is it prescriptive. However, golf rehabilitation is only limited by imagination.

Like any sports injury, rehabilitation is most effective when it is tailor made to the individual after careful analysis and sport specific. It should become more dynamic as the individual improves. Finally, it is most effective when the whole of the chain of motion is considered.

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