



# Identifying muscle imbalances

Myotherapy plays a significant role in the postural and musculoskeletal screening process.

Postural and musculoskeletal screening has changed the way elite golfers and serious amateur golfers approach golf-specific fitness. While some tour professionals still lift heavy weights, many have begun to embrace golf-specific fitness programs designed by a physiotherapist in consultation with a PGA coach. The first step is to undergo a 'screening' to identify problem areas in their body, enabling a corrective exercise program to be designed.

Last month, we summarised the screening process and went on to explain one part of that process – functional testing. Physiotherapist Darren Lay showed some of the procedures we use for functional testing at the Melbourne Golf Injury Clinic.

The second component of our screening process is a muscle-imbalance assessment, which I liken to inspecting a car. Are the tyres flat? Are the wheels in or out of alignment? I like to imagine the wheels are the joints of your body, while the tyres are the muscles.

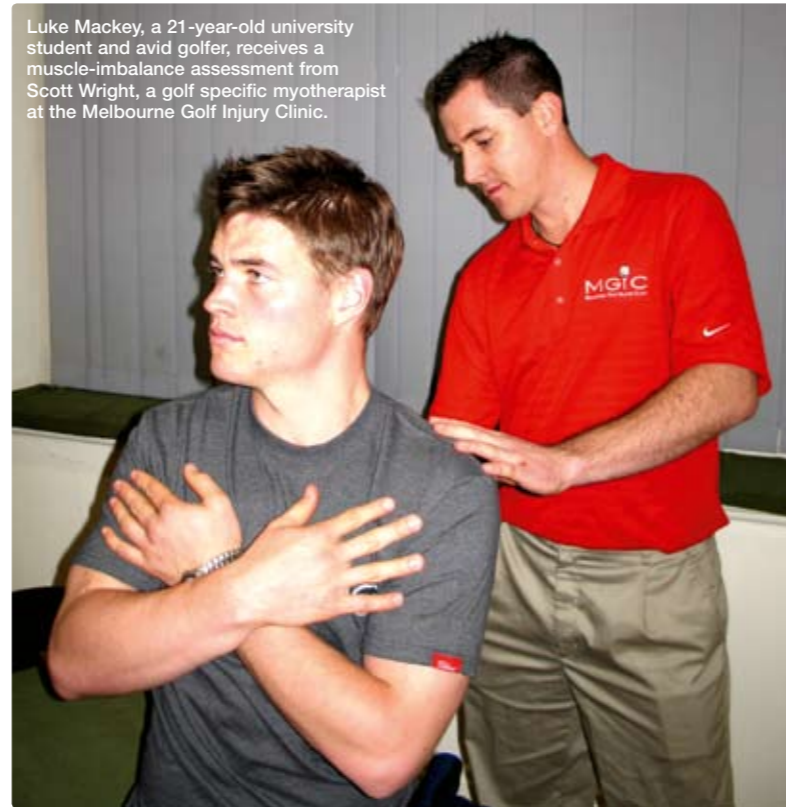
Scott Wright, a golf-specific myotherapist at the MGIC, specialises in this area. As a myotherapist, Wright treats excess muscular conditions using a range of modalities, such as myofascial dry needling, corrective exercise, stretching and massage. Using any one of these soft-tissue release techniques will involve working on a myofascial trigger point to try to ease the pain of a particular muscle and increase the range of movement.

Normally when a muscle becomes dysfunctional a trigger point will start to form. Most of the trigger points within the body feel like little taut bands, similar to knots in a rope. They normally form because of a few reasons: poor posture, a repetitive movement (for example, over-practising, which has made a muscle overactive) or when there are underlying pre-conditions. That is, when the body attempts to protect a particular area it may start to develop tightness, encouraging trigger points to form.

Wright begins his muscle-imbalance assessment by checking a golfer's general range of movement. He likes to do slight resistance work and takes into account what has been found in other screening procedures. Physiotherapist Lay may have already identified a muscle as being a little weak or noted there is some instability with the proprioception of a particular area.

How much strength does the golfer have in certain muscles? Wright looks for muscle imbalances to find out what is tight and weak. He will test the pectoral muscles, hip flexors, gluts and hamstrings to see if there are any flexibility issues that need to be addressed. As well as many other muscle groups,

Luke Mackey, a 21-year-old university student and avid golfer, receives a muscle-imbalance assessment from Scott Wright, a golf specific myotherapist at the Melbourne Golf Injury Clinic.



## How does rounded posture affect your golf?

From a golf point of view, if your thoracic spine is in a kyphotic or rounded posture, the joints of the spine anatomically won't rotate as far as if they were in good extension. You then lose feel through the golf 'Christmas Tree' muscle groups, which can affect your swing plane and also make your swing more army, causing tennis elbow and shoulder/neck-impingement issues. So the straighter and more functional your spine, the more rotation and better body sequencing in your swing. Very rarely would you see a pro golfer with rounded posture. They're all very straight, upright, and the rotation in their golf swing looks very comfortable. But with a lot of older golfers – many of who suffer kyphosis – swinging the club is a battle because their spine isn't in a good position to rotate. A lot of the time that we spend with golfers is about trying to get them into a decent posture, so that they can rotate more efficiently.

on the trigger point, applying a force to get it to release.

"Normally, you'll feel an easing of a range of movement and not causing as much pain. That is an indication that the trigger point is starting to release."

Following Wright's form of screening, I like to carry out a motor-pattern assessment using video and postural analysis (which I'll explain more about next month). The ideal scenario is to have a meeting between the golf coach and physiotherapist/trainer to work out your priorities once you've got all of your information from the three assessments.

Any strength and conditioning program will involve a sequence of exercises, designed to release overactive muscles. If the golfer's upper neck were tight, then we would offer an upper-neck release exercise. That will work through the neck, down through the trunk and legs and into the calves, so you get what's called a 'radiation' or flow-on effect. That's what happens a lot in neurophysiology, working from one end of the body to the other. By the time you get to a calf, the tightness will already have been reduced from 90 per cent to 30 per cent because of the radiation effect through the body.

The emphasis is about making golfers aware of where they get tight. Because once those inappropriate muscles are active, it's more difficult to get good quality of movement. There is no point training once you're already tight. It's a bit like a ballet dancer going out on stage to perform Swan Lake with tight hamstrings, having been sitting in a chair for three hours.

the problem area may require stretching before we even consider a strength and conditioning program.

Generally, muscle imbalances concentrate back to a myofascial trigger point. Normally, there will be a trigger point active in that muscle group. If one is over-dominant, that is too tight, the other side will be too stretched. Wright then goes about releasing those trigger points in the body.

"I like to take a muscle through a stretch release," Wright says. "With most of the exercises I give with the spiky ball, I put the muscle in a slight stretch, so put a little bit of tension

ROHAN CLARKE (4)

To obtain a golf-specific screening, purchase a 'Fitness Survival Kit' or sign up for a 'Golf Fitness Camp', contact Ramsay McMaster and the Melbourne Golf Injury Clinic on (03) 9569 9448 or visit [ramsaymcmaster.com](http://ramsaymcmaster.com).

**Next month:**  
A postural and motor-pattern analysis