# CHIROPRACTIC AND GOLF

Healthy hints to add length and accuracy to your golf shots.

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## The Healthy Swing

**By Dr. Phil Smith** 

Joint warm ups and muscle stretches will lead to longer and more accurate golf shots and will help prevent injuries.

Have you ever wondered why there are so many injuries in golf? After all, golf is a non-contact sport – a "gentleman's game". It is easy to understand how injuries happen in other sports that involve checking and tackling.

The most common injuries in golf in order of frequency:

- 1. Low Back Pain (Lumbar facet joint dysfunction)
- 2. Rotator Cuff Injury (Supraspinatus muscle strain)
- 3. Golfer's Elbow (Bottom hand/right hand on a right handed golfer)
- 4. Tennis Elbow (Top hand/left hand on a right handed golfer)
- 5. Wrist Pain (Carpal sprain)
- 6. Neck Pain (Cervical facet joint dysfunction)



Each of the 6 injuries listed above have specific and unique biomechanical causes. Subsequent articles will discuss these specifics.

In this issue we will discuss the factors that attribute to "becoming injured" and to making poor golf shots, therefore raising your score.

#### Factor #1

**Unilateral.** With any sport that uses only half of the body such as bowling, curling and tennis, biomechanical wear and tear takes place. The same unbalanced situation would happen to your car tires if you only made left hand turns.

#### Factor #2

**Repetitive Motion.** Counting practice and game swings, an average golfer makes 125-175 swings for 18 holes. Many of you may have heard of occupational repetitive motion disorders or repetitive strain injuries such as carpal tunnel syndrome. Injuries to the joints and muscles in golf are in many respects repetitive strain injuries.

#### Factor #3

**No or improper Warm up.** Most amateur golfers do not warm up at all. Many golfers who do warm up are unknowingly doing harm before they even hit their first tee shot. A warm up should be exactly that – AVOID using 2 clubs or ring weights on your clubs to "warm up" – save that for a strengthening exercise after you are warmed up. Have you ever seen a track athlete with a 100 yard race warm up by doing a 200 yard sprint?

## Factor #4

**Bad Technique.** Poor fundamentals (such as grip, stance, posture, etc.) not only lead to golf shots you wish could be mulligans but also lead to improper body mechanics. With bad technique, joints, muscles, ligaments and tendons are forced through ranges of motion they were not designed for.

In summary, bad golf shots are made with bad technique. When combined with an inadequate warm up, our joints are not able to take the pounding of swing after swing with one half of the body taking the assault and the other half remaining untouched. Something will eventually break down or give (repetitive strain injury) if we do not correct this situation.

It's not all bad news! In fact, anyone who is dedicated to improving can.

A healthy golf swing which optimizes performance (**lower golf score**) and aids in preventing injury, demands that a golfer had STRENGTH, FLEXIBILITY and COORDINATION. These three fundamental components combined with CORRECT POSTURE AND BALANCE allow for a healthy swing. Take a look around at your so called "naturally talented" golfers. They have it. The news gets better – they were not just born with it. They had to cultivate it – AND SO CAN YOU!

Follow the recommended steps below. Start today – your GOLF SCORE AND YOUR BODY WILL THANK YOU.

## Step #1

If you are in pain or are prone to problems, get a check up on your musculoskeletal system by a health care practitioner. Find out what your weak links are – what areas of your body have joint dysfunction and muscle imbalance and what exercises will specifically help you restore normal function.

## Step #2

After you are tuned up, go to your local golf pro to learn the proper technique. A little can go a long way.

## Step #3

Warm up before each practice session and golf game to attain maximum performance and help prevent injury. It is crucial to do a warm up for your joints. Muscle stretching is what most people think of when they warm up. Take a look again at those top 6 injuries – 5 of the 6 are joint injuries!

The most ideal method to prepare physically for golf is:

- 1) Light Cardiovascular Exercise Brisk walking, light running, bike riding etc. for 4-10 minutes (longer if desired). This brings fresh blood to the joints and muscles needed for oxygen and fuel. An alternative is a sauna, warm bath or shower immediately preceding your joint warm up. The cooler the weather, the more cardiovascular exercise is needed.
- 2) Joint Warm ups Ask your local pro about these. Joint warm ups provide the oil-like fluid which lubricates joints creating smooth joint motion, maximum range of motion (larger backswing) and aid in the prevention of joint injury.
- 3) Muscle Stretches to be done after joint warm ups and before practicing, playing or strengthening. Please note it is ideal to stretch after a round of golf or a practice session, or after doing the golf strengthening exercises. This will decrease the amount of muscle stretching required before your next golf game.
- 4) Strengthening to be done only after joint warm up and muscle stretching are complete.

Cheers! Get your joints and muscles working for you and watch your scores go down.

## **Chiropractic and Your Good Golf Game**

By Dr. Phil Smith

More and more golfers are turning to chiropractic not just to treat pain syndromes like "golfer's elbow" but also because they've heard that chiropractic care could help improve their game. Both motivations have a lot of merit. Just ask Tiger Woods!

## Chiropractic Can Help



Many conditions may be caused by jolts and strains incurred in the game of golf or are underlying conditions that may become aggravated in normal play. Either way, they hinder your enjoyment and performance. The most common conditions range from golfer's elbow, neck, shoulder, lower back and knee problems to balance and co-ordination difficulties, and diminished grip strength. often a dysfunction within your spine may be the main contributing factor in causing these conditions. For example, nerve irritation resulting from a neck problem may cause weakness in the muscles of the forearm that attach near the elbow resulting in a repetitive strain injury and tendonitis (known as golfers and/or tennis elbow). The golf swing itself creates excessive stress in the lumbar spine which may cause lower back pain.

## **Physical Problems Need Physical Solutions**

While many people seek relief through medication, the use of medication often provides only temporary relief. Chiropractic care enhances your body's ability to heal itself. It is a physical solution to a physical problem. Get a chiropractic examination to see if a problem with your spine is the primary cause of the pain and discomfort you feel.

## The Natural Way to Health Care

Chiropractors believe in whole body wellness. To your chiropractor, wellness is a state of health where your body is free of interruption or interference to any part of your nervous system, enabling you full expression and enjoyment of life. Your chiropractor will check for spinal or other joint-related problems that may interfere with your nervous system and through hands-on healing will work with you to eliminate them. After chiropractic care your body will be better able to heal itself. This in turn aids your body in maintaining optimum health and contributes to your overall wellness.

## A Healthy Body Translates Into a Great Game

With a healthy pelvis and spinal column, the hip and shoulder in turn improve and allow for a fuller back swing and better release through the ball. Proper nerve function to the upper extremity helps ensure a proper trip and helps alleviate shoulder and elbow symptoms. Many co-ordination and balance difficulties improve when spinal problems are corrected. Various exercises and soft tissue techniques can also prove beneficial, depending upon the condition.

## **Returning to Play**

When you return to play, take it easy at first and do the appropriate stretching and warm up exercises. Chiropractic adjustments to other extremities such as your shoulders, knees, elbows and wrists may be very helpful in returning you to a full swing. Many chiropractors will recommend orthopedic supports which are also effective and may help strengthen and protect you from various types of injuries.

Yes, chiropractic care may help you drive further, putt more accurately, cut strokes off your score, and play with greater comfort to your maximum ability. So if you would like to get even greater enjoyment out of your game, see your chiropractor.

## **Facts on Chiropractic**

Chiropractic adjustments are amongst the safest of all health interventions. Every year in Canada, chiropractors perform an estimated 30 million treatments. A chiropractor is a doctor with at least 7 years of university level education, who is specifically trained in hands-on healing. Chiropractors use gentle adjustments of your spine to make you feel great.

## **Chiropractic Golf Question**

Which famous golfer and chiropractic patient was one of the four international athletes on the float "A Salute to America's Finest, Chiropractic Centennial Celebration" in the 1995 Rose Bowl Parade?

**CASE HISTORY** - "Golfing is not my life, however my life would not be nearly as enjoyable without it. A year and a half ago my left shoulder was aching so badly that it was seriously hurting my golf swing. After two x-rays, anti-inflammatory drugs and physiotherapy my general practitioner diagnosed my condition as bursitis. I was told that I would have to learn to live with this ailment.

That was when I went to see a chiropractor. He examined me and after my first adjustment I felt the power returning to my left arm. I now continue with a tune-up adjustment every week or so and my swing has never felt smoother. The aches and pains are gone from my shoulder and I take no drugs at all.

Chiropractic can't guarantee an 8 handicap, but it may help you ease your pain and return to full function. I highly recommend chiropractic to get the most out of your golf game."

## Do Your Game a Favour and Warm Up Your Body

By Dr. Phil Smith

## **Increase Accuracy and Distance and Prevent Injury**

Once again the golf season is upon us. Finally! Remember to start your golf season off slowly. Warm up first. When practicing, begin with half wedge shots and work down in loft. Save your most powerful swings with your lower irons and woods near the end of your session when your body is warmed up and is best equipped to handle it. Before rushing out to play, if you use this advice and the following tips your golf season will be off to a great start.

## The Perfect Warm Up Includes:

- 1. Light Cardiovascular Exercise Brisk walking, light running, bike riding etc. for 4 10 minutes (longer if desired). This brings fresh blood to the joints and muscles which carries oxygen and fuel. An alternative is a sauna, warm bath or shower immediately preceding your joint warm up. The cooler the weather, the more cardiovascular exercise is needed.
- 2. Joint Warm Ups These warm ups provide the oil-like fluid which lubricates the joints creating smooth joint motion and maximum range of motion (larger back swing). They aid in the prevention of joint injury.
- 3. Muscle Stretches Should be done after joint warm ups and before and after practicing and playing. This will decrease the amount of muscle stretching required before your next golf game.

#### **HEALTHY GOLF TIPS**

- **TIP** #1 Dress in layers so you can take off clothes as needed and always carry an all weather suit in your bag.
- **TIP** #2 When play is slow or a delay has occurred, work on your joint and muscle stretches. Not only does this take your mind off the wait, but you benefit physically.
- **TIP** #3 Walk as much of the golf course as possible, even if your clubs are on a power cart! Walking helps prevent heart disease and osteoporosis and it's a terrific fat burner an average round burns nearly 700 calories!
- **TIP** #4 Push a golf cart -- never pull. Pulling leads to wrist, elbow, shoulder, and neck problems. Pushing keeps your joints in proper alignment and avoids undue strain.
- **TIP** #5 Carrying your clubs with one strap is harmful. Every day in my office I correct related problems with the neck, shoulder, arm, and mid back pain that can be caused by carrying a golf bag (purse, bookbag etc.) on one shoulder. If you always carry your bag on that same shoulder then you are adding even more stress to your body. If you prefer to carry your clubs, use double strapped carrying adapter. It's cheap at around \$35.00 and it keeps the chiropractor away.

**TIP** #6 - Another "hazard" on the course appears when retrieving your golf ball from the golf hole. There are two ways to do this. The more common approach is the "ballet bend" where you bend at the waist with on leg supporting your weight and with the other straight back behind you for balance. For those of you who have ever had back trouble or high blood pressure, I advocate the modified fencer stance. With this bend, you keep your back straight with the foot of the forward leg flat on the ground and the knee of the back leg on the ground. In this position you take advantage of the more powerful thigh muscles and take the pressure off your back and heart. Also, there is less pressure put on the spikes of the foot near the hole. If you're like me, you like an unblemished path for your putt.





Dr. Phil Smith demonstrates the "ballet bend".

Here Dr. Phil Smith shows us the "modified fencer" stance.

**TIP** #7 - Wear golf shoes that fit properly. Also if you know you have foot problems such as an ankle that rolls in or "pronates" or one that rolls out or "supinates" this can lead to heel spurs, knee, hip or back pain. Correct this problem by getting an orthotics device. My knees have thanked me ever since I had a pair made.

**TIP** #8 - Watch out for the sun. It's warm and inviting, but within that warm globe is a deadly threat to your health. Wear a hat and put on sunscreen with SPF (sun protection factor) of 15 or higher. Apply sunscreen 20 minutes before going outside and reapply after 9 holes. Keep a bottle of sunscreen in your golf bag. The sun's ultraviolet rays (UV) are most damaging between 11 am and 4 pm. About 80% of the sun's UV rays penetrate through the clouds on overcast days. Consult you physician or dermatologist if you have a questionable spot or mole that changes shape, colour, or texture.

Above all, remember golf is a sport like no other. It can be played at any age. The majority of golfers actually increase the amount they play as they mature. Follow this advice and I'll see you on the course.

Disclaimer: Any attempt made to shortcut the preceding advice on how to your best physically, will result in less than maximum output. If you are in pain or have pain while doing these exercises, stop and consult your health care practitioner.

*Dr. Phil Smith is a local chiropractor and avid golfer who has provided care to the PGA tour players.* 

#### HOW CHIROPRACTIC HELPED PADRAIG WIN THE BRITISH OPEN

#### PADRAIG HARRINGTON

Padraig Harrington was born in Dublin, Ireland in 1971 and became the first European to win back-to-back Major Championships by adding the 2008 US PGA Championship to the 2008 British Open Championship after he successfully defended The Claret Jug at Royal Birkdale. This month he was voted Golfer of the Year by his colleagues on the PGA Tour.

On winning the 2007 Open, he became the first player from Ireland in 60 years to capture the Claret Jug, following Fred Daly at Hoylake in 1947, and celebrated by engraving ladybirds on a replica to commemorate his son's words after the prize giving "Can we put ladybirds in it?"

Earlier in the 2007 season, he broke a 25 year barren spell for the home nation in the Irish Open, emulating the victory of John O'Leary in 1982. He secured the Harry Vardon Trophy as The European Tour's Number One player after a thrilling end to the 2006 season where he pipped Paul Casey. It was his first Order of Merit, having finished second in 2001 and 2002, and third in 2003, 2004 and again in 2007. Padraig completed an accountancy degree before turning professional.

The following is an excerpt of the interview done by Karl MacGinty (reporter for the Irish Independent) with Padraig Harrington and Dr. Dale Richardson, DC, Padraig's chiropractor:

#### How long have you worked with him?

I think I have been working with him near to 12 years.

#### How many weeks of the year are you on tour and for how many of these is Dale with you?

I play 30 events, I have coverage about 25 weeks and Dale is there for 20 of those weeks.

#### What are the reasons you use his services?

It started off because I had some chronic injuries, tennis elbow and some struggling with my left shoulder. Basically through over-practice I got into some bad postures, just hit too many golf balls over the years. Because of constant work I had to spend a lot time in the gym and I need plenty of treatment to balance things out. In the last couple of years it's gone from a stage where I would be losing maybe 4 or 5 tournaments a year through injury to not losing any. I am still having problems for maybe 4 or 5 weeks but now it's always something that can be worked with and recovered.

# Dale, from your sports chiropractic perspective working with an elite golfer, what are the most important services you provide for Padraig?

Probably the most important thing is to take an elite golfer from injury through to prevention and then work on performance criteria. I use many different modalities and therapies to do this. I'll use a range of different soft-tissue therapies and then work through rehabilitation and an exercise regimen.

#### Padraig, are you a good patient?

I would say I am a pretty decent patient. I do as I'm told - yes I can overdo it too at times but I am aware of that now with experience and am certainly not as bad as I would have been a few years ago. One thing I know through experience is that I need to keep having constant treatment, even when I have weeks off, because I can see even though I would be injury-free for say a couple of weeks, I can feel symptoms building up, and if I don't deal with those early signs I'm going to be in trouble.

#### Padraig, on the morning of a tournament, and during a normal practice day, what routine do you follow?

Essentially I do 45 minutes of stretching, stability, core work to get warmed up, then have a shower and head for the golf course. After breakfast I spend about 20 minutes with Dale checking that everything is working right and doing a little bit of stretching, then I spend an hour warming up at the range hitting shots.

I go and play about 4-5 hours on the golf course depending on time constraints and energy levels. I could then spend a couple of hours practicing. In my earlier days it was 4 hours practicing now I keep it to an hour maybe 2 hours depending on the time of the year and the conditions. Then I spend another hour with Dale getting some treatment. That would be my day - I probably would get back in the gym as well if I have the time in the evening.

#### What other health professionals or consultants do you work with on tour besides Dale?

Out on tour - no one else.

#### Do you have a dietitian?

I've worked with dietitians in the past, but that's another area that I discuss with Dale. As he said earlier he encompasses many areas—whether its diet or training or biomechanics, and even the psychology of the game.

#### How many hours do you and Dale spend together in a tournament week?

Working we probably spend 20 minutes in the morning and an hour in the evening, socially probably five hours in the week including a couple of dinners.

#### Dale, how much time do you spend on the road?

I do 25 weeks a year on the road and that's on the European Tour and also on the PGA Tour and some thrown in Asia. I would say half the year.

#### What has been your greatest experience working with Padraig?

Probably the greatest experience , which can happen a lot with elite golfers and that I actually really enjoy—being put under the gun to keep someone playing—is when something goes wrong. I enjoy the stress of it, I enjoy the challenge. The biggest challenge for me with Padraig – there have been a couple of big ones was at the 2002 US PGA Open where Padraig went out and did some virtual boxing on the Friday night and destabilized his scapulo-thoracic joints. The next morning with a few shots on the range – bang – he locked up his neck and we spent the next two days getting it right whilst Padraig was on the course playing.

One time he teed off hitting the ball only about 150 yards down the fairway. We got a 10 minute medical and kept doing that for virtually every hole for the last two days of the tournament. Padraig finished well. He got through and finished 17th.

#### Had anything like that ever happened before on the golf course Padraig?

It used to happen quite regularly and that was when I was unable to play five tournaments a year. With a lot of work and patience it's not costing me weeks of my schedule any more and we know how to treat the problem and really keep on top of it.

## I know the TV viewing audience at that time was astonished by what they saw on that first fairway – it looked like something from WWF?

It looked like Dale was trying to take my head off at the neck.

#### Padraig. What's been your greatest experience working with Dale?

We have had many experiences over the years since I started working with him in 1997 in Australia. I think getting me through the British Open this time around was a big deal because I went on to win and it meant everything. Dale has got me through other tournaments from similar situations—but in other situations it hasn't counted as much, so that's probably the biggest one.



Dr. Richardson with Padraig Harrington in a "headlock" while he sits on his golf bag. Here Dr. Richardson uses traction for his neck problem on the course at the US PGA 2002.

## **Golf Injuries and Feet**

Golf is not a contact sport but it still puts enormous demands on the body. Recognizing the potential golfing injuries and planning ahead can prevent any injuries down the road.

#### The mechanics of your feet and the golf swing

## Summary

During the golf swing the body acts as a whip, power production starts with the feet pushing against the ground. The foot pivots and provides intrinsic lateral movement to enable the hip to fully rotate around a fixed leg position. Each foot moves differently during a golf swing, the back foot must allow for more pronation during the follow through of the golf swing than the front foot.

#### **Biomechanics**

The anatomy of a biomechanically sound swing goes like this: During set-up, your weight should be evenly distributed on both feet with slightly more weight on the forefoot as you lean over, and slightly more weight on the insides of both feet.

Maintenance of proper foot alignment on the back swing is critical for control of the downswing and contact position. During the back swing, weight should be shifted to the back foot. It should be evenly distributed on the back foot or maintained slightly on the inside. Shifting weight to the outside leaves you susceptible to the dreaded "sway", a common error in swing. Without an exact reversal of the sway in the downswing, swaying will result in improper contact with the ball.

As the back foot remains in a solid position on the back swing without any rolling to the outside, the front foot is in turn rolling to the inside. The front heel occasionally comes off the ground to promote a full shoulder turn. Completion of the back swing places the weight on the back foot to the inside and the front foot to the outside. Golf should always be played from the insides of the feet.

## **Common Golfing Injuries**

**Lower Back:** Pain and stiffness in the back and neck are usually caused by the twisting motion of the golf swing as the shoulders rotate around the hips. The twisting of the torso in a coil fashion can put enormous pressure on the vertebrae, muscles and ligaments of the spine especially during the recovery phase. Indeed when one addresses the ball the bent back puts one in a most vulnerable position. Not surprisingly the US PGA cites lower back pain as the dominant golf injury. One of the most common causes of lower back pain is over pronation in the feet. Even a slight postural misalignment caused by over pronation can lead to back pain.

**Inflammation of Arm Joints:** Swelling of the tissue around the joints is simply a symptom of overuse especially when playing on hard surfaces. A good period of rest is the best medicine though physiotherapy can help to speed up recovery.

**Knee Problems:** Inflammation or pain in the knees is caused by the twisting motion of the golf swing and sometimes by walking in ill fitting shoes. Rest is the best medicine. However, a re-evaluation of one's swing and orthotics can prevent this condition from occurring.

**The Shin:** Pain in the muscles of the lower leg is usually caused by excessive walking after a period of inactivity. It can also be caused by over pronation in the feet putting excessive pressure on the lower leg. Orthotics and insoles are an ideal treatment option.

**The Foot:** Painful feet are common amongst golfers. Common conditions include:

- **Heel Pain** This condition is also known as plantar fasciitis and commonly occurs due to excessive pronation in the feet. Golfers will often complain of pain when first rising in the morning and after periods of rest. Pain will be located in the center of the heel.
- **Metatarsalgia** This term refers to any pain in the fore foot region. This can be caused due to corns, hard skin or bony pain.
- Morton's Neuroma Inflammation of the nerve in between the metatarsal's (bones at the sole of the foot) occurs. This can be very painful for golfers who walk around the fairway.
- **Tendonitis** Inflammation of the tendon that runs along the arch region. This is a common golfing injury as the foot can be placed under excessive pressure during the golf swing.

## **Orthotics/Insoles and Golfing Injuries**

Insoles allow a golfer's body to establish a better point of contact with the ground when executing a golf swing. They will also stabilize your feet, evenly redistribute weight and correct your entire body posture during the golf swing. Recent research published in the Journal of Manipulative and Physiological Therapeutics reports that 71% of participants felt there balance was improved while using orthotics and playing golf. An impressive 50% felt that they were hitting the ball harder and 38% of participants reported a lower golf score while using orthotics. The research suggests that insoles can help golfers improve balance, hit the ball harder and obtain a lower golf score.

Insoles also prevent and treat a variety of painful injuries that can affect your concentration and ultimately your golfing handicap. Bringing painful knees, legs, feet or an aching lower back to the fairway can prevent you from playing to the best of your golfing potential!



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