

## **Chiropractic's new role in the golf community Part 3**

### **Program Design for the Golfer**

In the previous installments of this series I have covered the basics of *Chiropractic's new role in the golf community* and *Golf Specific Functional Screening*. Program design for the golfer is the next step in the process, following the thorough golf fitness evaluation. The golf fitness program can be coupled with manual therapy for quicker and more effective results, or if the golfer is suffering from nagging injuries. In this article, I will be covering program design for the healthy golfer whose goals are performance enhancement and injury prevention. In the next installment, I will discuss treatment options and protocols for golfers, and how to implement golf specific corrective exercises into your treatment plan.

As a chiropractor/golf fitness & injury specialist, your role can consist of performing the golf physical screening, treatment of injuries, and program design, but it should end there. You should then give your report of findings and/or program design to a golf specific fitness trainer to carry out the program. The trainer should be able to carry out your initial program and have the knowledge to recognize when to progress the golfer as his/her fitness level increases. You may choose to have a trainer on staff if you have a capable facility. The other option is to refer your golfers to a local trainer who is qualified. This will also help build a two-way referral network between you and the trainer for their other clients.

When designing a golf fitness program, Tables 1.1 and 1.2, and the golfer's screening should be the template to build their program. Along with general golf specific exercises, the program should be designed to provide the golfer with proper ankle mobility (dorsiflexion), knee stability, hip mobility & stability, lumbar/core stability, thoracic mobility, scapular stability, and glenohumeral mobility. Notice the body's alternating pattern of mobility and stability. This is important because if an area of the body is lacking its desired function, the area above or below will negatively compensate, which decreases performance and increases injury. For example, if a person lacks proper thoracic spine mobility, in particular extension and rotation, the lumbar spine and scapulo-thoracic joint will adapt by providing extra mobility, which is a dysfunctional compensation. This person will typically present with a rounded upper back and shoulders at address, lack of scapular stability, and lack of core stability and strength. The common mistake many corrective exercise programs make, is that it only includes scapular and core stability exercises, and that's a good program. Most people don't even take into consideration the importance of scapular stability in shoulder function. What your golf program should include along with the scapular and core training, is thoracic mobility exercises. This kinetic chain training should be utilized for all most people, especially athletes.

In some cases, the golfer will have a high level of fitness and the initial program will not include too many corrective exercises, so you can proceed with more advanced exercises and power training. However, most golfers, even high level golfers, will have physical limitations and the initial 2-3 months might be dedicated to cleaning up those findings and building a solid foundation to build upon. Advanced golf exercises, plyometrics, and power training should be reserved until the golfer demonstrates a solid fitness foundation. Too many sport specific training programs try to build power, speed, and coordination on an insufficient foundation, which is counterproductive and may even lead to pain or injury.

When designing a program for competitive golfers, your program needs to reflect which part of the season they are in. This periodization of their program will ensure peak performance during the most important time of the year. During the season, their skill training/playing will make-up about 70-80% and fitness 20-30% of their golf allotted time. Too much physical training will be counterproductive, so gear the workout to maintenance. During the off-season, they should be dedicating a lower portion of time to skills training to make room for a full golf fitness program. Finally, pre-season training, which lasts about 4-6 weeks, should be high skills training and a tapering of the intensity of the physical program.

<b><u>Golf Fitness Training Goals</u></b>
Postural Correction
Balance & Proprioception
Motor Control & Coordination
Flexibility/Mobility
Muscular Strength & Endurance
Power
Core Stability

Table 1.1

<b><u>Flexibility/Mobility</u></b>	<b><u>Strength, Endurance &amp; Power</u></b>
Hamstrings	Glutes (Max & Med)
Quadriceps	Quadriceps
Hip Flexors	Adductors
Piriformis	Latissimus Dorsi
Torso Rotation	Chest
Latissimus Dorsi	Rotator Cuff
Thoracic Extension	Torso Rotation
Shoulder Ext. Rot	Core
Chest	Triceps/Forearms
Ant/Post. Pelvic tilt	

Table 1.2 Target Areas of the Body

### Program Design Guidelines

- The ultimate goal of a golf fitness program is for Performance Enhancement & Injury Prevention.
- The Golf Fitness Assessment should be the foundation of the program design.
- The initial program should be a blend of exercises/stretchers that correct physical limitations and general golf specific exercises, and should progress in difficulty as the golfer's fitness level increases.
- Golf fitness is a combination of optimal balance, coordination, mobility and stability.
- The golfer should be trained for muscular strength, power, and endurance, not hypertrophy and cardiovascular endurance. Strength and power is optimally trained with low reps (1-8) and longer rest periods. Muscular endurance is trained with high reps (15-20) and short rest periods.
- A full General Fitness Assessment and Injury/Health history should be taken to rule out any contraindications to certain exercises.
- The program should include all of the Golf Fitness Training Goals (Table 1.1) and should target the Golf Specific Muscle Groups (Table 1.2).
- Advanced exercises and power training should not be implemented until a solid foundation has been achieved by the golfer.
- A pre-practice and pre-round warm up should be given. This warm up should consist of 6-8 dynamic stretches that takes 5-7 minutes to perform. All stretches should be designed to be performed without having to get on the ground.

- Program design should take into consideration if the golfer is in his/her preseason, midseason, or off-season.
- Factors when designing the program include the golfer's fitness level, age, injury/pain history, goals, and facility/equipment available.

Below is an example of a basic golf fitness program including screening findings along with corrective and golf specific exercises. If you have any questions regarding the exercises below or other exercises feel free to contact me.

### **Case Study Example**

- Video Swing Analysis
  - C- Posture (Upper Crossed Syndrome at address)
  - Decreased/Flat Backswing
  - Reverse Spine Angle (Lateral tilt of the upper body towards the target)
- Golf Physical Screening
  - Upper Crossed Syndrome
  - Rounded and internally rotated shoulders
  - Decreased thoracic extension and rotation
  - Tight Pecs
  - Decreased torso rotation
  - Decreased shoulder external rotation
  - Lack of scapular stability
  - Hip internal/external rotation normal
  - Lat length normal
  - Normal hip stability (Glute med/max activation)
- Golf Fitness Design
  - Cat & Camels for Thoracic extension
  - Quadruped Reachbacks for Thoracic Rotation
  - Swiss Ball Chest Stretch
  - Seated Rows for mid back strength/postural correction
  - I,T & Ys for postural correction
  - Reach, Roll & Lifts for postural correction
  - Torso Rotation Mobility Exercises
  - Shoulder External Rotation Dynamic Stretch
  - 1-leg stance on balance cushion
  - Dumbbell chest press on swiss ball
  - Wall sits for 60 seconds- Leg endurance
  - Trunk rotations with cables
  - Bird Dogs on Swiss ball for core stability
  - Glute Max Bridges