Do Golfers Need Strength Training?

INTRO

Golf has become an increasingly popular sport attracting new players of almost all ages and socioeconomic groups. Technique can have a large impact on golf performance, but altering your form and improving your clubs can only take you so far.
Every golfer wants to play better golf. The most common method used to achieve this is through lessons and more practice. This approach seems logical, but it is the very reason so many golfer end up injured. Why? Simply because few golfers associate the need for improved physical condition in their quest for improved performance.
Although golfers in general have been taught to avoid strength traiing in fear of losing range of motion, there are significant benefits to both game performance and injury prevention that can be gained through a good strength training program to illustrate this consider the following points…(injuries and handicap) golfers need to be stronger to survive the sport.

With a sound strength training program particulary those focused on the trunk, will reduce the chance of injury. What performance minded golfers need to keep in mind is that the golf swing is initiated by the abdominal muscles some 30 miliseconds before the arms or legs even move. If the core musculature is weak or does not fire properly, the golfer will inevitably overuse the arms to compensate, resulting in micro-trauma to the muscles and tendons.

BIOMECHANICS

A golf swing is all about proper body mechanics. A good golf swing requires full rotational capacity of nearly every joint and must be done efficiently, easily, explosively, and repeatedly. Biomechanics has been used in an attempt to characterize the “ideal” golf swing, with the aim of improving performance and reducing the risk and severity of golf-related imjuries.

INJURY PREVENTION

At any given time approximately 30% of PGA golfers are playing injured
63% of golfers have low back pain
24% have wrist or elbow pain

Biomechanical studies show forces generated during a golf swing are high enough to fractures a vertebrae when not guarded by muscle stability

By following a carefully designed program which conditions the golfer specifically for the game, will reduce the risk of injury

Conditioning

What separates the athletes who dominate their sport from their opponents? Think of Tiger, Jordan, Gretzky and their ability to perform “in balance”. None were muscle

bound men. Strength cannot be directed to enhance performance if the athlete is off balance, and unable to direct their strength in optimal directions. Their distinguishing qualities are motor control. The ability to exert strength quickly, and in a way with perfect synergy throughout the body linkage, and while in dynamic balance, characterize this skillThere is a sophisticated system involved in functional force development that depends on feedback from the visual and auditory systems, vestibular system and proprioceptive system. All of these systems must be challenged and conditioned to achieve optimal performance.

Golfers generate 90% of their MVC during a swing. This is equal to the weight you could lift four times before fatigue. Only difference is golfers do this 40 times in four hours.

Have you noticed that scores achieved by golfers have hardly changed in the past thirty years. Fifteen years ago the average amateur male golfer's handicap was 16.2. Today, the average amateur male handicap is 16.2. Golfers havn't improved despite technological advances in golf equipment. This scenario likely will not change until golfers realize there is a strong correlation between sport performance and sport specific training.
Technology will not lower your score, improved performance is the answer.

Golf is the only sport in the world where conditioning is not considered essential to performance in the sport.

In relation to performance enhancement, the major beneifit of a conditioning program is, improved power and club head spped, through increasing range of motion, strength, muscle power, balance and aerobic conditioning.

Many studies have shown approximately 8 weeks of specific strength and priorioceptive training, resulted in significant increases in rotational trunk power and club head velocity

Functional exercises that develop movement skill, balance, coordination and spped should be used

HOW DO I TRAIN?

Many exercises "isolate" body regions, but will this be carried over onto the course? If strength training does not mimic the way muscles are used in functional activity, then it may have only a cosmetic effect on your body. It is important that the goal of training is specified and that the training prescription matches the athletes needs.

Nearly all actions in golf require involvement from the whole body. Therefore training should also involve the whole body. The trunk transmits the energy generated from the lower body to the upper body (or kinetic chain). The role of the trunk or "core" in force transmission should not be underestimated.

When golfers train with body building principles, the bodies ability to organize and synchronize complex multi-joint movements is impeded. This will result in the complete opposite of what a golfer needs to improve function.

Unlike exercise programs developed upon bodybuilding principles, muscle isolation, functional exercises are designed to restore, balance, length, strengthen, and coordinate movement patterns specific to the sport environment. The brain does not think in terms of isolated muscle, instead it recruits groups of muscles in uniquely programmed sequences. Your brain is like a computer. If you program it with poor quality information, that is exactly what will come out of it on the course.A golfers conditioning program must therefore be designed to intergrate the entire body.

There is a proper sequency in training to restore function and improve performance that must be followed in order to reach your goals and reduce injury rates. The program must always be aimed at first restoring stability and improving balance or prorioception . Stabilizer weakness is a common demoninator in poor athletic function and orthopedic injury. Strength must then be restored and improved. The final goal is then re-establishing and enhancing power output.

There is mounting evidence supporting the role of aerobic exercise in both reducing the incidence of low back injury

Flexibility

Optimal joint range of motion is a biomechanical prerequisite of the golf swing. Golf flexibility is not something that can be purchased at golf town. However, it is essential in helping the golfer reach full potential and reducing the rate of injury. Flexibility is important for golfers who suffer from back, wrist, shoulder, hip and knee pain. Flexibility is a descriptive term for the amount of movement, uninhibited by motion restrictions. To golf at full potential, the golfer must possess the ability to rotate almost every joint to its functional capacity. If there are movement restrictions in the shoulder, torso, or hips, there will be compensation somewhere else in the musculoskeletal system. When the mechanics of the joint are changed, the mechanics or movement pathway are also changed, this result is compensation by the golfer. The more a golfer compensates, the more inconsistent they will become. Studies have shown a strong relationship to the incidence of low back pain in golfers with reduced range of motion at the hips and this back pain has been shown to lead to shoulder injuries to compensation by the golfer. Therefore it is important to maintain range of motion in these joints.

If the hip joints are restricted in internal rotation, then the golf swing will be effected and excess rotational demands will be placed on the low back and shoulders. If the body can not compensate in these areas, the wrist is forced to work harder which is one of the major sources of injury in golf.

The most common by-product of reduced range of motion is power reduction which means less distance on the drive. By having these restrictions removed or released, injury can be avoided and performance improved.

Once you improve your functional capacity you are more likely to benefit from lessons. If there is a biomechanical fault underlying the swing fault, chances are slim lessons will produce a long term fix unless the problem is eliminated. In reality all you will do is compensate in new ways. This means, many hours spent grooving faulty movement patterns. The body remembers movement patterns, but can not distinguish between good or bad ones. In a situation where rapid movement is required (off the tee), the body will provide the most fimliar pattern whether it is optimal or not. It is therefore better to train with sound movement patterns from the start, rather than having to re-learn them later.

Remember, the golfer plays the game, not the clubs!