Edgemont Chiropractic Soft Tissue Management Systems

The focus of our clinic is treatment of soft tissue injuries and the improvement of athletic performance.

Our patients range from Olympic athletes to weekend amateurs who would like to improve their game or treat a specific injury.

We provide services in:

- Active Release Technique.
- Chiropractic .
- Massage Therapy(two registered certified therapists).
- Acupuncture.
- Nutritional counseling.
- Rehabilitative exercises.

Active Release Technique (ART)

ART is used to treat a wide variety of conditions such as:

- Back Pain/Hip Injuries
- Carpal tunnel syndrome
- Frozen shoulder
- Golfers/Tennis elbow
- Knee Pain
- Plantar Fascitis
- Repetitive strain injuries
- Sciatica
- Shoulder Pain
- Rotator cuff syndrome

Active Release Techniques (ART) was developed by Dr. Michael Leahy, a Doctor of Chiropractic based in Colorado Springs, Colorado. Using his engineering background and knowledge of human anatomy, Dr. Leahy formulated a unique and effective approach for dealing with soft tissue injuries that is now known as ART.

ART provides a way to diagnose and treat the underlying causes of cumulative trauma disorders which often result in symptoms of numbness, tingling, burning, and aching. ART is a hands-on therapy that corrects muscular and soft tissue problems that are caused by adhesion formation from overuse, cumulative trauma, de-conditioned muscles, improper training, or trauma.

Improving Your Golf Swing Mechanics With Active Release Technique

Your golf swing is all about proper body mechanics. A good golf swing requires full rotational capacity of nearly every joint involved and must be done – efficiently – easily – explosively – repeatedly. Many swing faults are directly attributable to poor joint mobility, resulting from soft tissue restrictions. Soft tissue includes: muscles, tendons, ligaments, nerves, and fascia.

In order for a joint to move smoothly, the muscles which cross that joint must precisely coordinate contraction on one side with elongation of the other side. When the synergy or balance of any of the muscle groups is altered (usually short/tight), the movement patterns of the joint are compensated (usually restricted).

Why do my muscles feel tight?

Muscles become shortened due to injury, from trauma, or from repetitive strains that cause micro-tears. The scar tissue which forms at the injury site is less elastic and more fibrotic than normal tissue, and cause muscles to gradually loose their stretch component. Short tight muscles are weaker, more prone to injury, and play havoc with your golf swing.

Usually more than one muscle is involved. The body lays down fibrous adhesions between these muscles which restrict the muscles ability to slide freely past one another, disrupt joint mechanics, and cause the muscles to feel tight. Shortened muscles and tightened joints, all combine to impair coordination, reduce power, and result in further injuries. This cycle will repeat itself unless these restriction are released.

Common Swing Faults

Common swing faults occur due to tight shoulder, tightness in the hip joint, spinal injuries, and repetitive strain injuries.

When shoulder rotation is restricted the body compensates with excessive spinal rotation. This can result in back injury because most people already lack flexibility in the spine.

In addition, golfers will notice that they have difficulties in:

- Keeping their eyes on the ball.
- Maintaining an optimal swing plane.

This results in fat or thin shots. When the golfer attempts to compensate at the shoulder joint, the chances of a hook or slice increases.

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The Doctors...

Dr. Brian Abelson DC. is clinical director of Edgemont Chiropractic. Dr. Abelson holds a Level 3 Active Release Certification and is an assistant instructor in ART.

Dr. Abelson is very involved in the Calgary sporting community as both teacher and participant for many years. Dr. Abelson is also the host of the award winning, popular web site "Ask Dr. Abelson" at www.drabelson.com .

Dr. Ritchie Mah DC. was born and raised in Calgary. He graduated in 1996., his background includes Active Release Technique (Certification in all areas), Chiropractic, Craniosacral Therapy, Acupuncture, and Massage.

Besides being an avid golfer with a wide variety of experience, he has also been involved in the Calgary sporting community for many years. Currently Ritchie holds the Cochrane Golf Club Champion 2001.

Tightness in the hip joint rotational muscles places additional strain on the rotational requirements of the shoulder or spine. Often a golfer will compensate by lifting up during the back swing and then chop down on the ball resulting in a fat shot.

Wrist and elbow injuries often occurs when the body does not have the capacity to effectively compensate at either the shoulder or spine. The wrists are then over-used to drive as well as decelerate the golf club.

Stretching Will Not Break The Adhesions

Even individuals such as professional athletes who are constantly stretching find it difficult to release these soft tissue adhesions. This is why so many professional and amateur athletes are turning to Active Release Technique (ART) to release and remove these restrictions.

Scar tissue (or soft tissue adhesions) are several times stronger that normal tissue. Often muscle groups will literally adhere to each other, preventing the sliding necessary for full mobility. During normal stretching, the first tissue that elongates is not the scar tissue, but the normal healthy tissue. Stretching is essential at the right time, but it never releases the restrictions that often occur between two soft tissue surfaces.

Applying ART to Golf Related Injuries

In order to effectively balance your muscles and remove joint restrictions we must first identify your unique pattern of muscle imbalances. By utilizing a series of muscle balance and swing analysis tests, we can identify the exact type, extent, and location of muscle restriction. We then use ART treatments and follow-up stretches to remove and resolve these restrictions, and then strengthen the muscles to prevent re-injury.

Applying ART

Once the shortened muscles are identified, ART treatment works to break up the adhesion/scar tissue and return integrity back to the soft tissue. This is done by :

- Maintaining a contact on the adhesion, with the muscle in a shortened position.
- Elongating the muscle along its fiber orientation to break up the adhesion.
- Once the adhesion is broken up, the soft tissue can glide unimpeded, allowing you to reach the positions your golf professionals are showing you without tension, pain, or further injury.

Muscle Balance Tests

Take the following tests to determine in your range of motion, areas of restriction, and possible solutions.

- Internal Shoulder Rotators on page 3.
- Hamstring Test on page 7.

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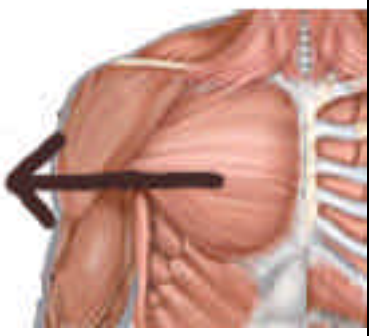
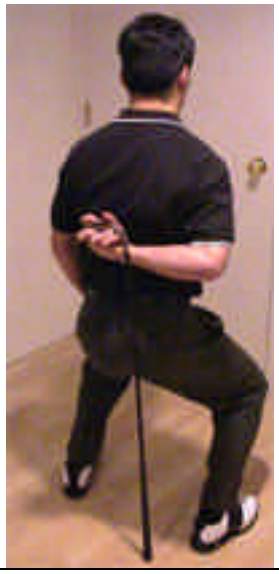
- External Shoulder Rotators on page 4.
- Spinal Rotation Test on page5.
- Hip Flexor Test on page 6.
- Lateral Bend Test on page 8.
- Reach for the Sky Test on page 9.
- Internal and External Hip Rotator Test on page 10.

Internal Shoulder Rotators

Internal Shoulder Rotation	How to perform this test…	Effect on your golf swing…
 Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	Reach behind the back and attempt to touch the lower part of the opposite shoulder blade. **Note:** This tests for internal rotation. If you can complete this test, you have normal internal shoulder rotation.	Tight internal rotators restrict a golfers ability to face the target during follow through.

Anatomy…	How ART can help…	Recommended stretch…
	ART identifies the adhesion and removes it. In most cases the golfer will notice an increase freedom of motion in their back swing and follow through.	

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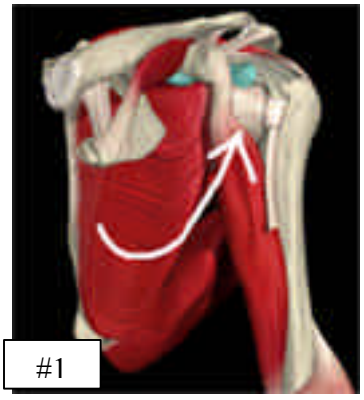
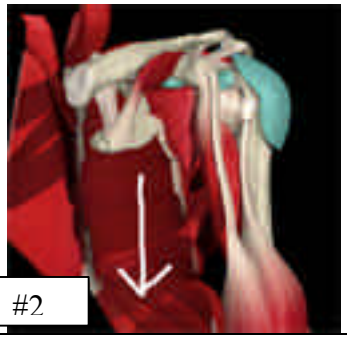
External Shoulder Rotator's

External Shoulder Rotation…	How to perform this test…	Effect on your golf swing…
 Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	Reach over the shoulder and attempt to touch the top inside corner of the opposite shoulder blade **Note:** This tests for external rotation. If you can complete this test, you have normal external shoulder rotation.	**Tight Right Shoulder (Trail Side)**: Tightness in the external rotator of your right shoulder restricts your follow-through. **Tight Left Shoulder (Target Side)**: Tightness in the external rotator of your left shoulder restricts your back swing.

Anatomy…	How ART can help…	Recommended stretch…
 #1  #2	The shoulder blade lies on the ribcage. Often two muscle become adhered to each other preventing rotation of the shoulder on the ribcage. ART identifies the adhesion and removes it. In most cases the golfer will notice an increased freedom of motion in their back swing and follow through.	

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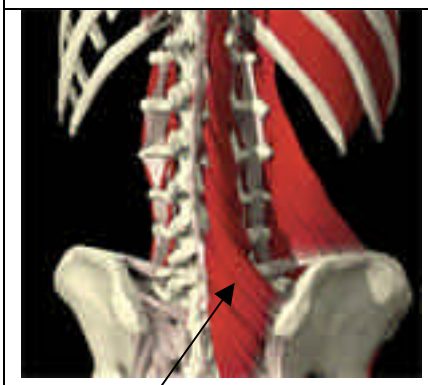
Spinal Rotation Test

Spinal Rotation Test	How to perform this test…	Effect on your golf swing…
  Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	1. Lay on your back with your knees in the air. 2. Slowly lower your legs to one side. 3. Repeat for the other side. **Note**: If you have normal spinal rotation, your legs will lie flat on the floor without the opposite shoulder coming off the ground. The greater distance your bottom leg is from the floor when the opposite shoulder begins to rise, the more restricted your spinal rotation.	When the spine can't fully rotate : ▪ The shoulder is often overused to compensate for restricted spinal rotation. ▪ Coil action is limited. ▪ Swing faults result with regard to swing plane, club face angle, and maintenance of optimal swing axis. ▪ Excessive shift and rotation of the hips during both the back-swing and follow through.

Anatomy…	How ART can help…	Recommended stretch…
 Multifidus	Because these muscles are very small, and lie deep along the spine, the adhesions that form in them do not respond to stretching. These adhesions must be broken before stretching is effective. ART restores normal spinal rotation. So that stretching and strengthening exercises now become effective.	

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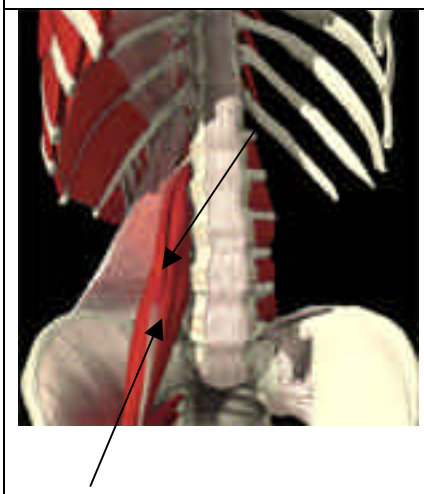
Hip Flexor Test

Hip Flexor Test…	How to perform this test…	Effect on your golf swing…
 ÿ Normal Range of motion. ÿ Restricted Range of motion.	1. Choose a strong table or firm bed. 2. Lie on your back with your legs hanging freely off the end. 3. Place one hand under your lower back, opposite your navel. 4. Using your other hand bring the knee to your chest, until your lower back presses down on the hand under your back. 5. Now check if your hanging leg has lifted off the table and if the lower leg is still hanging straight down towards the floor.	Short hip flexors have been recognized as the most common cause of muscle imbalance and are often found in golfers with low back pain. Short hip flexors can limit your ability to achieve a full back-swing, and inhibit getting your hips through on the follow-through. This results in : ▪ Limited coil action. ▪ Loss of power ▪ Impedes you from facing your target at finish.

Anatomy…	How ART can help…	Recommended stretch…
	The hip flexors (psoas muscle) are deep along the front of the spine. ART is the only therapy we found that can effectively address adhesions in this area. We refer to the psoas as a miracle muscles. By correcting this single imbalance we have seen remarkable results in improving swing biomechanics.	

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Hamstring Test

Hamstring Test	How to perform this test…	Effect on your golf swing…
  Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	1. Lie on your back with both legs fully extended. 2. Slowly raise a straight leg until you feel your opposite knee begin to lift off the ground. **Note**: You should be able to raise your leg to 90 degrees.	Short hamstrings affect your address posture, causes excessive forward bending of the lower back, and reduce spinal rotation. Overuse of the arms is common when spinal rotation is limited with tight hamstrings.

Anatomy…	How ART can help…	Recommended stretch…
 .	In not uncommon to have shortened hamstrings that do not respond to stretching. After undergoing ART therapy the hamstring muscles now respond to the previously ineffective stretching. Note: The Sciatic nerve is often entrapped between the hamstring and adductor muscles. ART is the only effective treatment we have found to address this issue, and is effective even for chronic sciatica patients.	

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Lateral Bend Test

Lateral Bend Test	How to perform this test…	Effect on your golf swing…
 Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	1. Stand with your feet together hands along your sides 2. Slide your hand down your lateral thigh, keeping heels on the ground. 3. Repeat for both sides and compare tension. **Note**: With normal range of motion, you should be able to reach the knee joint line equally for both sides.	Restricted lateral bending is often coupled with limited spinal rotation: This results in: ▪ Swing faults similar to that of limited spinal rotation. ▪ Excessive shoulder compensation with limited coiling. ▪ Excessive sway during the back-swing and follow-through Swing faults affect: ▪ The swing plane. ▪ The clubface angle. ▪ The ability to maintain optimal swing axis

Anatomy…	How ART can help…	Recommended stretch…
	Lateral bends are often restricted by a number of muscles. Each of these structures need to evaluated for restrictions. Stretching without finding the exact location of the adhesion is often ineffective. ART is an exact process which finds and releases the restriction associated with lateral bending.	

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Reach For The Sky

Thoracic extension...	How to perform this test...	Effect on your golf swing...
  Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	1. Stand with your heels about one foot from a wall 2. Keep your buttocks, back, and head resting against the wall. 3. Raise your arms in the air and bring them towards the wall. **Note**: If your lower back curves away from the wall, you have limited thoracic extension. You may also have a shortened latissimus dorsi muscle that limits full extension.	Shortened thoracic extension limits back swing and follow-through. A golfer will try to compensate with over rotation of the shoulder, which increases the chances of further shoulder injury. A shortened latissimus dorsi muscle contributes to a closed clubface at impact, possibly hooking the ball.

Anatomy...	How ART can help...	Recommended stretch...
	To stretch your arms into this position you must have full mobility of the thoracic muscular. In order to function normally there are eight layers of tissue which need to glide over each other. ART is used to locate the exact location of the restriction and release it.	

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Internal and External Hip Rotator Tests

Internal Hip Rotator Test	How to perform this test...	Effect on your golf swing...
   Results: ÿ Normal Range of motion. ÿ Restricted Range of motion.	**Internal Hip Rotators** 1. Stand with back against a wall and with your feet hip-width apart. 2. Ensure your hips are placed against the wall, and your legs are straight throughout the test. 3. Pivot upon your right heel rotating the toes outward. **External Hip Rotator** 1. Stand with back against a wall and with your feet hip-width apart. 2. Ensure your hips are placed against the wall, and your legs are straight throughout the test. 3. Rotate the toes all the way inward.	Inability to achieve normal hip internal rotation on the right and/or external rotation on the left will limit your follow-through. Hip rotation imbalance is commonly associated with overuse injuries to the back, shoulder, and elbows in golfers. This is particularly important to senior golfers as tight hips causes lower back pain and power loss.

Anatomy...	How ART can help...	Recommended stretch...
Internal Rotators 	Both internal and external hip rotators do not respond to traditional methods of stretching without first removing the adhesions. ART is used to identify adhesions, remove them, and restore the muscle ability to slide or translate across each other.	

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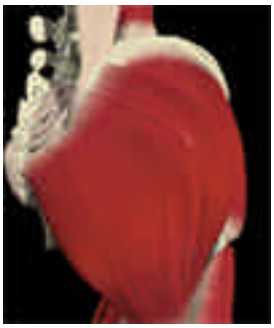
Anatomy…	How ART can help…	Recommended stretch…
External Rotators Layer 1  External Rotators Layer 2 	Internal Hip Rotator - continued	

References:

1. Active Release Techniques – Soft Tissue Management Systems by Dr. Michael Leahy DC, CCSP.
2. The Golf Biomechanics Manual by Paul Chek. 1999. C.H.E.K. Institute.
3. Primal 3D Interactive Series – Professional Edition. Hands, Shoulder, Knee 1.1, Hip, Foot and Ankle, Spine

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