

# Medical Articles

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Range Release & Conditioning – May 2016"]
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The Doctors at Chicago Chiropractic & Sports Medicine strive to provide our patients with the most advanced forms of manual treatment methods. Each physician has years of soft tissue and manual therapy experience in various techniques such as Active Release Technique and Advanced Myofascial Release. To continually provide you with the most progressive and advanced treatment Dr. Akin, Dr. Sebby and Dr. Painchaud have attained various Functional Anatomy certifications.

The soft tissue management systems created by Functional Anatomy are Functional Range Release (FRR) and Functional Range Conditioning (FRC) which were developed by Dr. Andreo Spina. Functional Range Release is an “advanced systemic approach to soft tissue assessment whereby the practitioner would be able to quickly and accurately delineate, feel and therefore assess specific clinical conditions in order to translate them into specific treatment regiments.” In addition, Functional Range Conditioning is a “joint training system” in order to create proper movement patterns and movement control for joint health and longevity. If you would like to know more about FRR and FRC treatment, ask your doctor.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Stay Injury Free This Spring! – May 2015"]

It's finally looking like spring in Chicago, and that means it is time to dust off the running shoes, tennis rackets, golf clubs, bikes or whatever equipment your favorite sport requires. Jumping back into your favorite sport on that first beautiful day can also bring on a sports injury. Follow these tips to ensure an injury free spring and summer!

- **Stretching:** before you start on any activity make sure you have taken the time to stretch. Visit our Moves of the Month page for some great ideas for stretching.
- **Warm-up:** take some extra time before you get started to do a proper warm-up. Warming up gradually revs up your heart rate and increases blood flow to your muscles. Choose a warm-up activity that uses the same muscles you will be using during your work-out. Walk or slowly jog before you begin to run. Bike at a moderate pace before you begin a harder ride. Take the time for some practice swings with the golf club or tennis racket.
- **Build up slowly:** unless you have been training indoors during the winter for your favorite sport, you will need to build up slowly. A lot of the injuries that we see happen when people overdo it on their first day out. You

need to rebuild muscle strength and endurance so that strains and tears aren't caused from overuse or being unprepared.

- **Weight training:** regular weight training is a great way to stay injury free. A weight training routine can be designed to target and strengthen the specific muscles used in whatever activity or sport you participate in.
- **Fuel and hydrate:** proper nutrition and hydration are crucial for preventing injuries. Remember to drink lots of fluids and properly fuel the body before, during, and after your work-out.
- **Check your equipment:** before you head out check to make sure that all of your equipment is in good working condition.

Now get out there and enjoy some beautiful spring weather after another long Chicago winter!

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Tips For An Injury Free Chicago Winter – January 2015"]

*By Chicago Chiropractic & Sports Medicine*

Whether or not we are willing to accept it, another Chicago winter is upon us. Being the responsible citizens that we are means hours of shoveling snow, breaking up ice sheets, digging out cars and getting a free workout pushing them out of a valuable parking spot. All this activity presents significantly higher risks for back injuries. Coupled with the tendency in winter for people to hibernate while feasting on their favorite comfort foods, we have a perfect set up for

injury.

So, how do we avoid these injuries? The advice is simple but effective. Follow these important winter tactics to navigate your way through whatever the polar vortex or El Niño has to throw at this fine city.

## **SHOVELING TIPS**

1. Always warm up before shoveling. Spend 5-10 minutes performing your favorite dynamic stretches. Don't just jump out of bed or off the couch and into the snow. Examples of dynamic stretches include wall slides, shoulder circles, windmills on the floor, lunges with a twist, and high knees. Dynamic stretching increases body awareness and lowers risk of injury.
2. If you are older or have health issues, find someone young and naive to do the work. This is pretty self-explanatory, but have them read this article first.
3. Keep upright, engage your core with abdominal bracing, and lift with your legs. Slouching over while pushing/pulling/lifting the shovel full of snow is one of the worse possible activities for your low back. Avoid strains/sprains and disc herniation by driving the shovel through the snow with your back upright and core engaged, then lift with your legs. Keep your knees slightly bent in an athletic stance to allow you to keep your back upright and core engaged.
4. Lift lighter shovel loads of snow. This may seem like common sense, but when in the moment and trying to get the job done, you may get carried away by lifting too much weight at once. If the shovel is too heavy, your form will suffer, and injury can result.
5. If you have any health issues that you think may prevent you from following these tips, consult your healthcare provider.

6. Stay fit and healthy. Don't allow the snow to beat you into submission. Maintain a healthy lifestyle by making healthy dietary choices and maintaining a workout regimen. Not only will you avoid winter related injuries, but you will be able to kick those winter blues. Snow is not an excuse to gorge on Lou Malnati's and binge watch House of Cards. Getting out of your comfort zone will pay big dividends come spring, when you don't dread fitting into your summer gear from last year.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Six Health Benefits of Acupuncture – November 2014"]

*By Chicago Chiropractic & Sports Medicine*

Acupuncture is a family of procedures involving stimulation of anatomical locations on or in the skin by a variety of techniques. There are a number of approaches to diagnosis and treatment in American acupuncture that incorporates medical traditions from China, Japan, Korea, and other countries. The most thoroughly studied mechanism of stimulation of acupuncture points employs penetration of the skin by sterilized thin metallic needles, which are manipulated manually or by electrical stimulation.

The following health benefits of acupuncture have been demonstrated in many peer reviewed research studies.

1. Reduced pain
2. Control of anxiety/depression
3. Management of headaches
4. Improved fertility
5. Decreased asthma symptoms
6. Improved allergy symptoms

Acupuncture has been shown to be an effective and safe form of treatment and co-management of a wide variety of conditions. Research suggests that acupuncture can be effective on both a local and systemic level. Acupuncture has been demonstrated to increase endogenous opioid concentration, increase blood flow, reduce both heart rate and blood pressure, and has been hypothesized to stimulate neurologic and endocrine changes systemically.

It's very common for patients to receive acupuncture to treat musculoskeletal pain. One specific example was a patient that I treated for Plantar Fasciitis. The patient had a history of chronic foot pain that was worse in the morning and after being on her feet for long periods. The patient had been through a variety of treatments including physical therapy, cortisone injections, orthotics, and pain medicine. To her disappointment, none of these approaches had been effective.

After a thorough functional evaluation and physical exam, I found that the patient was "flat footed" and had a history of ankle and knee injuries from years of tennis injuries combined with a lack of conditioning. She had become frustrated that she couldn't play tennis which had served as her form of exercise and stress reduction for so many years. The mechanical nature of her excessive foot mobility had likely caused the history of injuries and was also causing the tissue on the bottom of her foot to become inflamed. A more rigid arch would absorb normal foot forces, but in her case the excessive mobility of the arch was causing the soft tissue in the bottom of her foot to abnormally absorb forces. I decided that we would begin acupuncture treatment 2x per week for 4

weeks until her pain was gone. The goal of the acupuncture treatment was to disrupt adhesion that had accumulated in the soft tissue of the bottom of the foot while simultaneously reducing the pain. After 4 weeks, the patient's pain was gone and we were able to advance to physical therapy and proper foot wear with orthotics. In this case the patient was able to return to playing tennis on a regular basis and remain pain free.

It's important that patients pursue conservative treatment for common conditions. Conservative treatments like acupuncture reduce risk of side effects while lowering health care costs. Schedule a consultation with Chicago Chiropractic and Sports Medicine to learn more.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Mobility and The Rack Position – April 2014"]

*By Dr. Jon Sebby, D.C., ART Provider*

The elbow, wrist, and hand are some of the more neglected parts of the body. We demand a lot of them on a day-to-day basis. Most exercise and fitness programs give very little, if any, attention to the mobility and strength of these areas. When problems do arise, they tend to be less debilitating and it is common that people put off addressing the issue, thinking that it will get better on its own. More often than not, these chronic conditions will progressively get worse and harder to treat.

## **Weightlifting – The Rack Position and Grip Strength and Endurance**

In weightlifting, the rack position can be one of the more difficult positions to achieve. Some of the best exercises for developing strength and power utilize this position. However, even some of the best strength and conditioning coaches in the world will forego cleans and modify the front squat. The reasoning is because a majority of people have difficulty

achieving the rack position. These coaches simply avoid programming these lifts in order to decrease injuries related to them. After all, the best strength coaches work to mitigate injuries.

While much attention is paid to shoulder mobility and core strength, very rarely are the wrist and forearms addressed. Most lifters who attempt getting into the rack position are quick to point out the “intense” wrist pain. This does not happen due to “tight shoulders” or a “weak core” but most often to tight wrist flexors being forced to lengthen a great deal by a loaded barbell.

Apart from rack position, adhesions and tight forearm flexors oftentimes lead to early fatigue on lifts that involve gripping (i.e. pullups, farmer carries, and deadlifts). A common finding, after a series of treatments and continued mobility work, is that athletes are better able to stay on the pull up bar for longer without having to re-grip (ex. CrossFit’s Fran workout).

## **Wrist and Hand Mobility Screen to determine if you have tight forearms**

### **Double Extension Test**

Start by resting the right forearm against a wall with the elbow at a right angle. Then, with your other hand, gently pull the palm of the right hand back. The angle of the forearm and palm of the hand should reach 90 degrees (right angle) without any pain or discomfort. For the second part of the test, pull your fingers (minus the thumb) back as far as you can. Stop if there is any pain. Your wrist should be at a 90 degree angle to your forearm and your fingers should extend an extra 45-60 degrees from your hand. Make note of the range and perform again on the left side.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Is Nerve Entrapment the Culprit? – March 2013"]



*By Dr. Jon Sebby, D.C., ART Provider –*

Peripheral nerves, such as the sciatic, have their own unique biomechanics to allow for movement of the arms or legs. Nerves are surrounded and encased by muscle and connective tissue, so they need to be able to 'slide' through tissue during movement. Nerves can only stretch about 15% of their resting length before the blood vessels tighten down and lose blood flow.

If nerves are unable to slide, tension develops because nerve tissue is highly sensitive and can be injured easily if too much stress is applied to it. In the case of the sciatic nerve, too much tension will cause the hamstrings to feel "tight". Hamstring tightness can be attributed to the sciatic nerve or one of its branches, the tibial and common peroneal nerves, being entrapped within the hamstrings and/or calves.

The detection of neural tension requires specialized training. The doctors at Chicago Chiropractic & Sports Medicine are qualified and experience in utilizing specific soft tissue work and neural mobilizations tailored to treat neural tension.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Ways To Feel Better This Winter – February 2013"]

*By Dr. Jon Sebby, DC, ART Provider –*

This is the time of year that we all start to feel exhausted, sore and achy from sitting too much, hunching over our computers, slipping on ice, as well as from lack of sunshine and exercise. Follow these steps to help you relieve your aches and pains and to feel better from the inside out.

### **It's All in the Way You Breathe**

Proper breathing is vital to life and can enhance sport performance, increase relaxation and decrease pain. Diaphragmatic breathing was practiced by the ancient yogi's

and it's the breathing that infants do as soon as they are born. It is not until the child starts running around and experiences a flight or fight response do they switch to chest breathing. The flight or fight response is initiated when we become out of breath and need to find another way to bring more oxygen into our system. Chest breathing is normal for people out of breath. However, when we are not in this state we should be breathing with our diaphragm and abdomen.

To practice diaphragmatic breathing, sit tall. Place one hand on the abdomen and the other on your upper chest. If you do a diaphragmatic breath, you should feel the lower hand on your abdomen move out with the inhalation and in with the exhalation. The top hand on the chest should remain relatively still. If you find it hard to do sitting down, then try lying on the floor with knees bent. Several five to 10 minute sessions of diaphragmatic breathing each day can be beneficial. It can feel awkward at first to breathe without moving the chest, but people may note that regular sessions promote feelings of relaxation, focus, and comfort and before you know it you will naturally do diaphragmatic breathing.

### **Boost Your Vitamin D Levels**

During the winter months in Chicago, a majority of us are not getting enough sun exposure to produce adequate levels of vitamin D. Eating certain foods high in vitamin D and supplementation for most of us is needed. Cod liver oil is a great supplement that is high in the vitamin and also provides healthy omega-3 fats. Some foods that are high in vitamin D include:

Salmon and other fish

Mushrooms

Shrimp

Eggs

Grassfed Beef Liver

### **Get Enough Magnesium**

If you are feeling tired and irritable, you may have a magnesium deficiency. Adequate amount of magnesium helps the body regulate melatonin, which is why many people report better sleep after increasing their intake through certain foods or by starting supplementation. Longer and more restful sleep increases the body's natural production of human growth hormone. Try adding these foods that are high in magnesium to your diet:

Halibut

Spinach

Pumpkin Seeds

Okra

Plantains/Bananas

Beans

Oysters

As for supplementation, Natural Calm (available at WholeFoods) or Poliquin's UberMag with L-Tryptophan is an excellent supplement to take before bed.

### **Get Massages on a Regular Basis**

Massage is recognized as being extremely effective in relieving muscle pain, tension, and soreness. It is so effective at relieving pain because it addresses the cause of the pain. Typically, pain is a result of areas of a muscle that become stagnant either from postural deviations (hunching too much) or trauma (falling on ice). When muscles don't function properly, other muscles compensate and circulation to the muscles decrease causing a buildup of cell fragments,

acids, and other substances. Taught bands of tissue, or trigger points, develop in the muscle causing soreness and tension. By observing postural deviations, assessing muscle weakness, and through palpation, a massage therapist can find trigger points and use specific techniques to eliminate them.

Massage also increases circulation to the tissue. As fresh blood and oxygen increases to the stagnant area toxins are flushed from the tissue and absorbed into the lymph system where they are either reused or excreted from the body.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Building Strength and Balance For Yoga – January 2013"]

*By Dr. Jon Sebby, DC, ART Provider –*

If you practice yoga and have reached a plateau in flexibility and ability to perform certain poses, you may have some adhesion or “scar tissue” physically restricting any further range of motion and progress. Chiropractic adjustments can help by increasing motion in joints that are restricted. Yoga is an amazing form of exercise. It does a remarkable job helping people look better on the outside and feel calmer on the inside. Even more, it works amazing to combat inflexibility. Whether you work hours on end at a desk or spend hours running, yoga can help relieve inflexible joints and tight muscles. Doing anything sustained or repetitive desk work, driving, running, weight training can potentially starve your muscles and ligaments of blood, oxygen, and other important fluids. This can lead to weak and shortened muscles,

tight joints, and potentially adhesion formation in these joints and muscles.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Hamstring Tendinosis – January 2013"]

*By Dr. Jon Sebby, DC, ART Provider*

The hamstring muscle runs down the back of the upper thigh and is connected to the knee joint by a large tendon. Overuse, injury and stress can cause this tendon to become inflamed. Tendinitis is the inflammation or irritation of a tendon; tendons are made up of thick, fibrous connective tissues that connect muscles to bones. Hamstring tendinitis can be caused by overuse from activities such as running, biking or yoga. Tendons have only a limited capacity to become inflamed. Over time the swelling goes away but you are still likely to have pain from the repeated scarring of the tendon. In these chronic cases, we begin to refer to it as a tendinosis instead of the tendinitis that is associated with the initial inflammation. The tendon loses some of its blood supply and becomes weakened, leaving it more susceptible to injury. A.R.T. can help treat the scar tissue and improve the blood flow to the area.

People suffering from hamstring tendinitis/tendinosis will likely have pain where the hamstrings attach to the ischial tuberosity (the bones that you sit on). It is important to get evaluated by a certified Active Release Technique (A.R.T.) provider. The A.R.T. practitioner can check for adhesions within the surrounding hip musculature to ensure that the hamstring is not being forced to handle excessive loads. In order for the hamstring to be allowed to heal it is also important to decrease the load/strain that the hamstring is placed under. If you are a runner or cyclist, you most likely need to temporarily trade running/biking for walking, swimming, or upper body and core strengthening to give the hamstring a chance to heal. In any

case, it can take up to 12 weeks off from the offending activity to allow your hamstring to heal.

Once properly diagnosed, A.R.T. and massage therapy can help cut down on the recovery time by improving tissue quality and blood flow to the injured area. For healing the tendinosis, eccentric strengthening (negatives) of the hamstring is key.

## **Exercises to Strengthen Hamstring**

These exercises can be performed for both rehab and prevention. A decrease in pain is a great indicator for healing. Once pain has resided, it is important to return to normal activity slowly. If you are a runner, for example, start by doing long walks. Then after a

week or two, start doing some short run-walk-run-walk training. It is important to increase distance or time slowly. Only add between 10-20% to your total distance each week to decrease the risk of reoccurrence.

### **Brady Eccentric Hamstring Exercise**

Start by standing and directly facing a stable chair. Place the heel of the affected leg on the chair. Make sure to maintain a neutral lumbar spine while keeping the pelvis facing forward. Allow the knee to “unlock” by letting it bend about 10 degrees. You should feel about 75% of a stretch to the hamstring. Adjust by flexing your hip and not the heel height or lumbar spine. Press the heel into the table by attempting to bend the knee with near maximum force and then lean forward into hip flexion. You should take 3 full seconds to complete the forward lean. Relax and return to starting position for your next rep. Repeat for 2 sets of 15 twice per day.

### **Static Hip Flexor Stretch**

Oftentimes when the hip flexors are tight, the hamstring has

to work harder to create extension from the hip. By stretching the hip flexors, it allows the glutes to work easier, which will take load off the hamstrings. Perform the static hip flexor stretch for 3 sets of 10 second hold on each leg. Make sure you maintain a neutral spine.

### **Isometric Supine Bridge (Glute Bridge)**

The gluteus maximus muscle is designed to be the primary hip extensor, while the hamstrings are meant to work as synergists. Oftentimes, due to excessive sitting and repeated movements, the glutes weaken and the hamstrings take over as prime movers (synergistic dominance). The end result of this is an overworked hamstring. This next exercise is designed to help strengthen the gluteus maximus.

Lay on your back in hook-lying position. Then raise hips to create a straight line from the shoulder, hip and knee. Try to use only your glutes to hold the bridge. Do not extend your lumbar spine. Draw in abdominals at the top and maintain position. Start with three 15-sec holds and progress to three 30-sec holds.

For more of a challenge – in the bridge position raise one leg straight so the ankle, knee, hip and shoulders are all in a straight line. Do three 10-second holds on each side.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Understanding Achilles Tendonitis vs Achilles Tendinosis – January 2013"]

By Dr. Jon Sebby, DC, ART Provider

There are many predisposing factors of Achilles tendinitis that includes: ankle flexibility, hip and leg strength, overuse, aging, flat feet, and poor training techniques. Achilles tendinitis has a classic presentation of pain and tenderness in the Achilles tendon following jumping or running activities. If we translated the name “tendinitis” from its

Latin form we would get “inflammation of the tendon.” However, new research is showing that this common injury to the Achilles tendon has little inflammation present. More recently, this painful condition has been renamed as a “tendinosis” to more accurately describe the chronic degeneration of the tendon. The condition is often evident by the knotty swelling of the tendon that is tender to the touch. Active Release Techniques (ART) can provide much of the initial relief of this condition. It helps to break up the scarring of the tendon and promotes better alignment of the collagen fibers within the tendon. ART can also help clear adhesions in the hip and thigh to promote better biomechanics during running, jumping and walking.

For rehabilitation, the focus is on performing eccentric calf raises, as shown below. While standing on a stair with the heels hanging over the edge, raise up with both feet onto the toes. Then transfer all the weight to the affected side and lower slowly. Lower as far as possible, taking 5 seconds to reach the bottom. Then repeat by rising back up using both feet. Perform two sets of 10-15 repetitions twice a day (morning and evening). To improve strength and biomechanics of your hips and hamstrings, refer to the Glute Training and Reaching Single-Leg Straight-Leg Deadlift pages in the exercise section of the Chicago Chiropractic & Sports Medicine website, [www.chicagochirosports.com/exercises.html](http://www.chicagochirosports.com/exercises.html)

Recovering from Achilles tendinosis requires a lot of patience and persistence. It is important to perform the eccentric calf raises daily. In cases of flat feet (overpronation), a custom orthotic may be needed. A diet rich in vegetables (especially of the green leafy variety) and omega-3’s (fish) can help with tissue healing. In addition, a magnesium supplement, garlic and ginger could provide further benefit to the healing tendon.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Vitamin D – Good for Your Health – January 2013"]



Vitamin D plays a larger role in regulating our health than simply improving our bone density. Researchers have discovered that getting the recommended daily vitamin D intake could help reduce plaguing health risks such as MS and diabetes. Ordinarily, a vitamin is an essential element that the body cannot create on its own; however, it is possible for people to create all the vitamin D they need from a cholesterol-like precursor. During the summer months that goal can easily be reached, as the human body can generate up to 12,000 IU of vitamin D from only 30 minutes of sun exposure. However, during the winter months, the daily intake people derive from food and sun exposure falls significantly below the recommended amount. Living relatively far from the equator makes it extremely difficult to get enough sun during the winter to maintain sufficient blood concentrations of vitamin D.

#### Summary of Vitamin D Research

- Prolongs life
- Prevention of diabetes
- Protection against multiple sclerosis (MS)
- Regulates inflammation, helps autoimmune diseases
- Signals colon, breast, and prostate cancers to stop growing (cancer prevention) which helps to reduce cancer rates by 30-50%.
- Reduces breast cancer by 83%
- Prevention of osteoporosis
- Has a minor effect in weight loss
- Improves mental and nerve function, fights anxiety and depression
- Lowers blood pressure
- Deficiency can cause muscle cramps, spasms and parasthesias
- Improves mood in Seasonal Affective Disorder (SAD)
- Improves skin conditions like psoriasis and eczema
- Works like a flu shot, lowering flu infection rates
- Strengthens blood brain barrier for brain protection

- Increased immune function

For adults, the minimum amount of international units (IU) of vitamin D per day should be between 200 to 1,000 IU, though most people don't even come close to that. For health purposes up to 2,000-5,000 IU is considered safe, but some experts allow up to 10,000 IU. Women concerned with bone health should take 2,000 IU per day or more. 5,000 IU is needed in many people to get the full benefits against cancer. Blood tests are the best way to find out your blood levels, which can vary quite a bit.

[/et\_pb\_accordion\_item][et\_pb\_accordion\_item title="Staying Healthy On and Off the Bike – January 2013"]

*By Dr. Jon Sebby and Dr. Josh Akin*

It takes more than just spending time on your bike to reach your cycling goals. It requires listening to your body and implementing successful strategies to keep your body injury free.

In you are feeling out of sorts or you are having a hard time coming back from a ride, you may have developed restrictions that are preventing you from efficiently riding. Many times, athletes equate poor performances with poor conditioning or training. To overcome the poor performances, athletes tend to increase their mileage and intensity. However, your performances and training volume are not always directly related. Often time athletes with good training habits develop overuse injuries because their imbalances and dysfunctions were not addressed.

Adhesions in the soft-tissues and restrictions within joints can predispose athletes to muscular imbalances that can lead to injury. When athletes are training at a high level, these imbalances become magnified. Over time the body reaches a point where it is no longer able to adapt to the stress.

A normal muscle and its fibers should be able to move

independently of the other soft tissue structures surrounding it. For instance, when paint is left on a brush overnight all of the fibers tend to stick together. Soft tissue adhesions or fibrosis are essentially this, when muscle fibers stick to each other and other structures around it (other muscles, tendons, ligaments, nerves etc.). Muscles cannot and will not function properly in this state and pain is one of the symptoms people may experience when enough build-up has accumulated. Fact is stretching will never release the scar tissue, which is several times stronger than normal tissue. Stretching and other types of non-operative treatment become successful only after the scar tissue is released with soft tissue treatments.

By using chiropractic manipulation, soft tissue treatments (Active Release Technique and Massage Therapy) and functional rehabilitation, chiropractors and practitioners are able to reduce the dysfunctions that diminish an athlete's efficiency and performance.

Utilizing chiropractic adjustments we are able to help remove joint restrictions in the spine and extremities. Soft tissue treatments, such as Active Release Techniques and Massage Therapy, are effective at reducing adhesions with the muscles, ligaments and tendons, which improves the functioning of the musculoskeletal system. After joint restrictions and adhesions are reduced, we use specific rehabilitative exercises to strengthen weaknesses and to help balance asymmetries.

Functional strength exercises are utilized to focus on weak areas and to ensure that the work done with manipulation and soft-tissue treatment is as effective as possible and is maintained. The exercises outlined below are aimed to help stretch and strengthen some commonly tight and weak areas in cyclists.

By utilizing an effective training plan coupled with chiropractic manipulation, soft tissue treatment and a

personalized functional exercise program, the end result is an optimization of overall functions. With this integrated strategy, cyclists will see immediate improvements in their performance, from their speed, efficiency, range and ease of motion, and even accuracy of movement.

## **Here are some exercises that help address some of the common trouble areas with cyclists:**

### **Cobra Pose**

Being hunched over in the saddle for hours on end can leave you sore and stiff. To help reverse the effects of a sustained riding posture, add the Cobra Pose to your routine. Lie face down and place your hands underneath your shoulders. Gently press up, keeping a slight bend in the elbows.

### **Foam Roller to the Adductors**

The adductor group (groin muscles) function in cycling during the down stroke of the leg. These muscles can be overworked and develop adhesions, especially if you are a sprinter or do a lot of time trials. Lay face down and position the foam roller parallel to your body. Then bring your leg out to the side with the knee bent and roll your inner thigh muscles (adductors).

## **Hip Flexor Stretch**

The hip flexors are another group of muscles that work hard in cycling. The forward flexed posture and overuse can lead to tight hip flexors, which can cause problems off the bike. To stretch them, start by kneeling on one knee. Place the front foot about 12" in front of the back knee. Keeping your stomach and glutes tight, extend the hip of the down knee. Hold for 30 seconds and perform two sets on each side.

## **Glute Bridge**

The glutes are underworked in cycling and with tight hip flexors this combination can lead to low back pain. Lie on the floor, arms at your sides, knees bent, and heels on the floor (1). Lift your hips with knees, hips, and shoulders forming a straight line (2). Hold for 2 seconds, then return to start. Perform 3 sets of 12 reps.

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