

ACTIVE P.T. SOLUTIONS
...BECAUSE LIFE SHOULD
BE ACTIVE

APTS Monthly



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Office Hours:

Monday -

8:30am - 5:30pm

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10:00am - 7:00pm

Wednesday -

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Thursday -

8:30am - 5:30pm

Friday -

8:30 - 4:00pm

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Runner's and Knee Pain

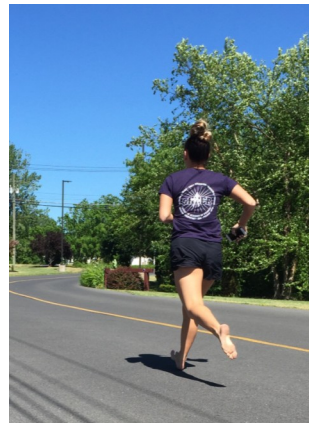
As the weather improves, more and more recreational athletes will hit the road for their daily running sessions in an attempt to shed the winter pounds. Unfortunately, a large percentage of these individuals will have their exercise goals fall short due to injury. One of the most common injuries in the recreational runner is knee pain.

Commonly referred to as runner's knee or patellofemoral pain syndrome (PFPS), this type of pain is worse with activity and improved with rest or stopping the running program. While the majority of runners knee can be resolved with a combination of Physical Therapy treatments and stability exercises, there are occasional underlying problems with the patients anatomy that may slow progress. The faster the underlying problems are recognized the more efficiently the patient can be managed. Efficient management leads to faster resolution of their knee pain and return to their recreational running.

The knee is made up of four bones. The femur or thighbone above, the tibia and fibula below and lastly the patella or kneecap that sits in a groove on the femur. In the past, it was believed that the kneecap itself moved to the outside and this was the cause of knee pain. Today, research has shown that it is not the kneecap that moves to the outside, but the femur moves to the inside giving the perception that the kneecap moves to the outside. This happens in large part due to the weakness of the hip muscles that

should contract and stabilize the femur at each step in the running or walking gait.

If you are experiencing simple runner's knee because of poor mechanics from hip muscle weakness, exercises such as bridging, side leg lifts, and squats leaning into an exercise ball will be helpful in



correcting that weakness and reestablishing correct mechanics on foot plant in the running gait.

If your pain is not improving and you have received treatments such as ultrasound, electrical stimulation, ice, and knee exercises you should try alternative treatments and be evaluated for underlying conditions.

Several underlying conditions can be the cause of knee pain that fails to improve with comprehensive physical therapy. One of the more common conditions is known as a synovial plica band. This is basically an extra piece of tissue that remains in the knee from birth. Normally the plica is painless but,

the stress of athleticism will irritate and thicken the plica turning it painful. Once the band becomes painful, ice and rest will usually reduce the pain. Returning to running often exacerbates the plica. Unfortunately, the most efficient treatment for a symptomatic plica band is arthroscopic surgical removal.

Here are some helpful clues to help differentiate a mechanical patellofemoral pain syndrome (PFPS) from a synovial plica band. Runners with plica syndrome usually have pain with running in a very predictable time frame.

For example, the pain usually comes on at a predictable time or distance into a run. Riding a stationary bike or using an elliptical are tolerable or even pain free. Sitting for long periods of time in a movie, car, plane, etc. cause pain and stiffness. This is referred to as cinema or movie sign. This is not commonly present in a mechanical PFPS. Riding a stationary bike and using an elliptical are usually pain free because neither requires you to be in a single limb stance (standing on one leg) at any given point in time such as in running.

It is the single limb stance that puts the most stress on the knee. While patients who have plica syndrome will get stronger with their strengthening program and their pain will subside with reduction or ceasing running activities, the pain returns with running in the same predictable manner as it did before the strengthening program.

Article Continued on Pg. 2

Exercise of the Month - Bridging

Bridging Exercises are essential for strengthening hips and core muscles. If done on a regular basis 3-4 days a week 1-2 times a day, they will improve balance and prevent injuries to the lower extremities.

Here's how it's done:

Start by laying on a flat surface, carpeted floor, exercise mat, or even your bed. Your legs are bent and your feet are flat on the floor 6-8 inches apart. Your palms are flat on the floor alongside your body. Relax your upper body and

back as you draw in your abdominals and squeeze your pelvic floor muscles (as if you were stopping the flow of urine). Exhale as you press your palms and forearms into the floor and slowly push your pelvis up to the ceiling. Hold in an "up" position for a slow count of three. Inhale as you slowly lower yourself back to the start position. Keep your abdominals tight to avoid sagging in the low back or glutes. Perform 2-3 sets of 12-15 repetitions allowing 30-60 seconds between each set.

Intermediate Bridging:

You can increase the difficulty by

holding the "up" position for 30-60 seconds to work your glutes even more. You can also start with your feet flat on a table or physioball for an even greater challenge. As usual, your knees are bent in the start position before elevating your pelvis.

Advanced Bridging:

If you are advanced with bridging, try the one-legged bridge. Start in the normal bridging position with knees bent and feet flat on the floor. Then extend one leg straight out in front at a 45 degree angle to the floor. Tighten your abdominals and raise your bottom off the floor.



Bridging Exercises
Top Photo: Start Position
Bottom: Finish Position

"If the pain is present for 6-8 weeks and is not resolving ...a medical opinion is in order and will ultimately save you time, money, and frustration."

Runner's and Knee Pain Cont'd

PFPS has a very good track record of resolution with a comprehensive program of manual soft tissue therapies, hip strengthening and balance training.

If you are a runner suffering from pain in the front of the knee and you have attempted self care with a hip and knee program, but continue to battle knee pain you should seek

out an opinion of a healthcare provider with sports injury experience and training. A healthcare provider trained in the management of sports injuries and who is familiar with runners can let you know from a history and physical examination if a plica band should be suspected. Generally speaking, if the pain is present for 6-8 weeks and is not

resolving to the point that you can return to your previous running routine, a medical opinion is in order and will ultimately save you time, money and frustration. It won't "just go away".

Congratulations Auburn Stingrays!

On Friday, March 18th the Auburn YMCA Stingrays headed down to Uniondale, Long Island to compete for the NYS YMCA Championship. This year's state competition was held at the Nassau Aquatic Center.

The Auburn Stingray swim team is the largest and most respected swim program in the CNY Swim League. Of 120 swimmers that competed in Long Island, nine members of the Auburn Stingrays qualified for Nationals which will start on April 5 in

Fort Lauderdale, Fl.

This will complete Dr. Buchberger's third season as the Strength and Conditioning coordinator for the Auburn Stingrays. The program is designed to strengthen weaknesses commonly found in the swimming athlete. With a lot of hard work from the athletes and the help of Dr. Buchberger, the Stingrays have made huge improvements across the board.

Good Luck Stingrays...Be Fast!

**Auburn
 Stingrays
 head to
 Long Island
 for States**



APTS Staff attends annual YMCA Health Fair



L to R:
Maggie Whitehouse, PTA,
Tom Zirilli, PT,
Linda Schattinger, Reception
Cara Cuthbert, Associate Director

Saturday, March 5, 2011

Each year the Auburn YMCA holds an annual health and wellness fair. The health fair is open to the public and is designed to provide the people of Auburn and surrounding communities with information on the various health related services available in the area. The services at the health fair included cholesterol screenings, massages, orthopedic services, a variety of educational tools from the risks of smoking to outdoor running safety, and of course physical therapy. The

Active Physical Therapy Solutions staff presented information and answered questions on our services and treatment techniques such as the benefits of Active Release Techniques, the Buchberger-12 rotator cuff strengthening program, the 6x6 exercise program for TMJ pain and dysfunction, among many others. This is a great event and it's a huge success!

*“The ART®
 Soft-Tissue
 Management
 System has a
 success rate
 that surpasses
 90 percent.”*

What is Active Release Technique® ?

The Active Release Techniques® (also know as ART®) Soft-Tissue Management System is a new and highly successful approach to injuries of muscles, tendons, fascia, nerves, and the surrounding soft tissues.

Examples of these conditions--collectively called cumulative trauma disorders (CTD)--are carpal tunnel syndrome, rotator cuff syndrome, chronic lower-back pain, and hyper extension/flexion injury (whiplash). Federal statistics show CTD increasing by 670 percent in the last five years, and past therapies--massage, heat, cold, electrical

stimulation, rest, and exercise--have all failed.

The Active Release Techniques® Soft-Tissue Management System provides a way to diagnose and treat the underlying etiology of CTD that causes symptoms of numbness, tingling, burning, and aching. Trained providers are able to diagnose the presence of abnormal inflammation and adhesion by examining tissue texture, tension, and movement. The ART® Soft-Tissue Management System has a success rate that surpasses 90 percent.

Physicians, chiropractors, osteo-

paths, physical and occupational therapists, and certified athletic trainers are using ART® treatment protocols successfully. Workers' compensation organizations, health insurance providers, professional and amateur athletic programs, and world-class athletes recognize the ART® system as the best choice for treating and managing soft-tissue injuries.

The Active Release Techniques® Soft-Tissue Management System is the future of CTD care.

Buchberger heads to Chula Vista for USA Swimming Camp

From March 24-28, 2011 Dr. Buchberger traveled to the Olympic Training Center in Chula Vista, CA to work with the USA swimming national team at one of their training camps. The camp was for some of our existing Olympic medal winners such as Katie Hoff and Matt Grevers as well as some

of the up and coming stars like Missy Franklin. Dr. Buchberger worked both pool side as well as in the training room providing injury treatments and assessments or maintenance treatments to prevent injuries during the grueling training camp that consisted of up to three workouts a day.



USOC training facility at Chula Vista training camp.



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Get Well...Get Active...Be Active!

**At Active Physical Therapy Solutions,
we utilize the most cutting edge treat-
ment and management techniques
available. Our goal is to deliver the best
possible healthcare in a friendly, caring
and well-organized environment. Our
staff is here to provide active solutions
to achieving your functional goals!**

...Because Life Should Be

ACTIVE!

Ergonomics 101 - To Flip or to Turn; That is the Question?

It is a common assumption that we spend approximately one-third of our lives asleep, unconscious or generally oblivious to our surroundings. Why is it that we spend such little time and give such little consideration to choosing the surface we sleep on? In some ways the general public takes for granted the value of a good night's sleep related to daily activities and our general productivity. Some research does verify that a good night's sleep is directly related to not only improved productivity but also reducing many of those chronic aches and pains that we feel each morning on waking.

Patients will ask questions such as, which mattress is good? Is one better than the other? How long does a mattress last? Unfortunately it is not that simple. The mattress industry has made their products as confusing to buy as the shoe industry. Both are extremely individual choices and require time and research to purchase. My first recommendation when looking for a mattress is to take your time and plan on spending a day in the store. Both you and your significant other should be in agreement on the choice of mattress. Don't let the sales people rush you into a decision and be ready to go home and think about it. Regardless of our personal choices there is some science behind choosing the right mattress. According to Professor Allan Hedge from the Department of Ergonomics at Cornell University, a mattress needs to be:

Ergonomically correct, meaning the natural curves of your spine should be maintained in any position. You should not feel the movements of your partner. The pressure on the supported areas of your body should be minimal. Your mattress, together with your quilt should create a balanced

microclimate to moderate temperature. A recognized Eco-Label Institution like Oeko-tex should, have tested your mattress, pillows, and quilt. You should be able to wash the covers, quilts and pillows for hygiene purposes. A study that appeared in the March 2008 issue of the Journal of Applied Ergonomics, provides solid scientific evidence of the critical link between health and sleep benefits and mattress quality, and underscores the

importance of regular assessment of one's mattress. Improvements from pre- to post-test in specific variables were reported by significant percentages of study participants. These included reduced back pain (62.8%), shoulder pain (62.4%), and back stiffness (58.4%) and improved sleep quality (64.4%) and sleep comfort (69.96%). "Our work showed that new mattresses have a considerable impact on reduced back pain and improved sleep quality, among other benefits," said Bert Jacobson, EdD, and lead researcher at Oklahoma State University. "Based on our research, there's no question that a new mattress can sustain these benefits for just about anyone, regardless of age, weight or gender."

As previously stated mattresses are an individual choice. What is undisputable is that anyone will

benefit from a new mattress. Generally speaking a moderate-firm mattress is best for people having a "bad back" not necessarily a firm mattress. Side sleepers may benefit from a memory foam mattress. The down side to the memory foam is that you can't rotate or flip it. If you tend to sleep "hot" then memory foam will make you "hotter". This is where the choices have to be made. Air cell mattresses such as "sleep-number" brand beds have tried to combine the concepts of memory foam and innersprings.

To flip or to turn; that is the question. The answer is both, when appropriate. Many of today's mattresses are designed to be "flip free". If you have an older mattress the routine should be to flip it once per month and rotate it once per month. Basically every two weeks you should either flip or turn your mattress in an alternating fashion. This will extend the life of your mattress and allow you to maximize the return on your financial investment. If you have a pillow top mattress at least rotate the mattress every two weeks as well as spread the filling by beating the top with your hands at the time of rotation. Mattresses can last anywhere from 5-20 years depending on the type of mattress and how you take care of it. Remember that a mattress is a significant investment. Like any other investment you want to take care of it and make sure that you get the most from it. Protecting your mattress investment starts with the day you make the purchase. Take your time, ask questions and buy based on facts and feel not looks! If you are experiencing new aches and pains don't necessarily shrug it off to the aging process. Examine how long it has been since you changed your mattress. You may need to go to the mattress store and not necessarily the chiropractor or physical therapist!