

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

APTS Monthly



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Office Hours:

Monday -

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8:00am - 7:00pm

Wednesday -

8:00am - 5:30pm

Thursday -

8:00am - 5:30pm

Friday -

8:00am - 4:00pm

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Runners and Knee Pain

As the summer progresses, recreational athletes will continue to hit the road for their daily running sessions. 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 runner's knee can be resolved with a combination of physical therapy treatments and stability exercises, there are occasional underlying problems with the patient's 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 his or her knee pain and return to his or her recreational running.

The knee is made up four bones: the femur or thighbone above, the tibia and fibula below, and 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 pain in the knee. 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 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, exer-

cises 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 during 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 synovial plica syndrome: Runners with a 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. Sitting for long periods in a movie, car, plane, etc., cause pain and stiffness. This is re-

ferred to as cinema or movie sign. This is not commonly present in a mechanical PFPS. Riding a stationary bike or using an elliptical are tolerable or even pain free; this is because neither requires you to be in single limb stance (standing on one leg) at any given point in time such as in running. The single limb stance is what 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. 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. Don't wait for it to "just go away" because it won't!

Article by Dale Buchberger,
DC, PT, CSCS

Exercise of the Month: Sidelying Hip Abduction



Sidelying hip abduction, start and end position (top), exercise position (bottom)

Sidelying hip abduction is an exercise to work the outer hip muscles that often get neglected in daily life.

Almost everyone's hips are weak because we walk forward and not sideways. When your hips are weak, the entire lower leg suffers, from the knee to the ankle and foot.

Hip abduction is the act of bringing your leg away from the center of your body. The key with this exercise is keeping your foot pointing straight forward—in this case, parallel to the floor—so as to not twist the hip in its socket, and also to not lift your leg too high.

The best way to position yourself for this exercise is to lie with your back

against a wall. You want your head, upper back, buttock, and heel all to be touching the wall. You can also rest your head down on your arm or a pillow if that position is more comfortable for you. The bottom leg can be bent (as shown) or straight—again, whatever is more comfortable for you.

To perform the exercise, lift the top leg slightly higher than your hip while keeping your knee as straight as possible and your foot in a neutral position (as stated previously). Do not point your toe; keep foot flexed toward you. No need to hold the leg, just lower slowly to midline (as shown), not all the way to the floor.

Perform 2 sets of 10 repetitions to start, and gradually work your way up to 2 sets of 30 repetitions per day. Once you reach 2 sets of 30 comfortably, you can drop your repetitions back down to 10 and add a one pound cuff weight to your ankle. Then gradually increase your repetitions to 30 and continue this cycle, up to 5 pounds.

As always, if you experience any pain, discomfort, or dizziness, discontinue the exercise and consult your health care professional!

Sign up for the
Downtown Auburn Mile
online only at
www.lightboxreg.com/downtown-auburn-mile_2017
\$12 in advance
\$20 on race day

What's Going on at APTS?

Kyle Brunnell, a second year PT student from Utica College, has been doing his first clinical internship with us since July 10. He will be here until August 18.

Dr. Buchberger continues to prepare for his trip to Taiwan. He leaves August 13 and returns August 31, returning to the clinic on Tuesday, September 5.

James Martin, PTA, is now a part-time part of the APTS family! We hired James under a temporary license to help out in the clinic while

Dale is in Taiwan. He will take his board exam in October. Claire Sargeant, a former front desk employee and PT student at Ithaca College, will once again be part of the APTS team, this time working as an aide in the clinic for 3 weeks in August while Dale is in Taiwan. We're very excited to have James's and Claire's help!

The Downtown Auburn Mile, sponsored by Active PT Solutions, is taking place Friday, August 25, at 7:00 PM. This race is for competitive

and recreational runners and walkers. It begins at Pettigress Funeral Home on Genesee Street and loops around Downtown Auburn, ending at Prison City Pub and Brewery on the corner of State and Dill Streets. The Auburn B.I.D. is sponsoring Music on the Mall featuring Mere Mortals that night after the race, and A.T. Walley's will be serving beverages and hot dogs. Sign up online only at www.lightboxreg.com/downtown-auburn-mile_2017 \$12 in advance, \$20 on race day. This event is family friendly and all ages are welcome!

APTS Night at the Auburn Doubledays

Active Physical Therapy Solutions sponsored its 4th Annual Buyout Night at Falcon Park, home of the Auburn Doubledays, on Thursday, August 3. Jason Stanford, former Cleveland Indians pitcher, Buffalo Bisons all time strikeout king, and friend of Dr. Dale Buchberger, joined the staff of APTS to sign autographs and take

pictures with fans. Dale and Jason threw out the first pitch simultaneously, Dale being a right-handed pitcher and Jay being left-handed. The attendance that night was 1619. We look forward to this every year!



Knee Pain: Meniscus Tears and Baker's Cysts

A meniscus tear is a common knee injury. The meniscus is a rubbery, C-shaped disc that cushions your knee. Each knee has two menisci (plural of meniscus): one at the outer edge of the knee (lateral meniscus) and one at the inner edge (medial meniscus). The menisci keep your knee steady by balancing your weight across the knee. A torn meniscus can prevent your knee from functioning correctly.

A meniscus tear is usually caused by twisting or turning quickly and forcefully, often with the foot planted while the knee is flexed. Meniscus tears can occur when you lift something heavy or during sporting events that involve stop-and-go movements. The risk is particularly high for athletes, especially those who participate in contact sports, such as football, or activities that involve pivoting and sudden stops, such as soccer, tennis, or basketball. As you age, your meniscus will begin to degenerate and wear. This can make the meniscus more susceptible to a tear. Even kneeling, deep squatting, or lifting something heavy can sometimes lead to a torn meniscus. In older adults, degenerative changes of the knee may contribute to a torn meniscus. If a meniscus is degenerated, simply rolling over in bed can result in a tear.

Larger tears can cause pain at the side or center of your knee. Swelling gets progressively worse over 2 or 3 days. This may make your knee feel stiff and limit how you can bend your knee, but walking is usually possible with a noticeable limp. You might feel a sharp pain when you twist your knee or attempt to squat down. These symptoms may resolve in 3 or 4 weeks but can recur if you inadvertently twist or overuse your



knee. The pain may come and go for years if the tear is not treated or rehabilitated.

When severe tears occur, pieces of the torn meniscus can break loose and move into the joint space. This can cause your knee to catch, pop, or even lock. You may not be able to fully straighten or bend your knee. Your knee may feel "unstable" or "give way" when weight bearing on the injured leg. It will usually swell and become stiff right after the injury or within 24 hours of suffering the injury.

If you are older and your meniscus is degenerated, you may not know what you did to cause the tear. For example, you may only remember feeling pain after you got up from a squatting position. Pain and slight swelling are often the only symptoms.

A torn meniscus can lead to knee instability, inability to move your knee normally, or chronic knee pain. You also may be more likely to develop osteoarthritis in the injured knee several years following the injury.

A Baker's cyst is a fluid-filled pouch that can develop behind the knee and is commonly associated with a meniscus tear. It is named after doctor William Baker who is reported to first describe this condition in approximately 1877. It is also sometimes referred to as a popliteal cyst. The cyst can vary in size from a very small cyst to a large cyst that is a number of centimeters across. Although possible, it is uncommon for a Baker's

cyst to develop behind both knees at the same time.

A Baker's cyst can develop if there is an underlying problem within the knee, such as arthritis (including osteoarthritis and rheumatoid arthritis), or a tear in a meniscus. This type of Baker's cyst is the most common and may be referred to as a secondary Baker's cyst.

In a secondary Baker's cyst, the underlying problem within the knee joint causes too much synovial fluid to be produced within the joint. As a result, the pressure inside the knee increases. This has the effect of stretching the joint capsule. The joint capsule bulges out into the back of the knee, forming the Baker's cyst that is filled with synovial fluid. This results in limited ability to bend the knee, especially with attempting to squat down. The Baker's cyst can expand and shrink over time. Generally surgery is not indicated for a Baker's cyst, but draining it is an option.

Meniscus tears that prevent full function after conservative treatment (physical therapy, strengthening program, Active Release Techniques, Extra-corporal Shock Wave Therapy, etc.) for 6-8 weeks may require arthroscopic surgery. While no one wants surgery, sometimes surgery is necessary to regain full function. Meniscus tears commonly fall into this category. Once the meniscus tear is either debrided or repaired, supervised physical therapy will quicken your return to your pre-injury level of activity. Remember, it's your right as the patient to choose which physical therapist you see!

Article by Dale Buchberger, DC, PT, CSCS

A torn meniscus can lead to knee instability, inability to move your knee normally, or chronic knee pain. A Baker's cyst can develop if there is an underlying problem within the knee, such as arthritis or a meniscal tear.

APTS Recipe Box: Avocado Tuna Salad or Pineapple Shrimp on Bok Choy

This is a quick and easy healthy lunch or snack with just 4 ingredients. And it's gluten free, dairy free, and paleo!

Ingredients: 1 avocado; 1 lemon juiced, to taste; 1 tablespoon chopped onion to taste; 5 ounces cooked or canned wild tuna; sea salt to taste; fresh ground pepper to taste.

Instructions: Cut the avocado in half and scoop the middle of both avocado halves into a bowl, leaving a shell of avocado flesh about 1/4-inch thick on each half. Add lemon juice and onion to the avocado in the bowl and mash

together. Add tuna, salt, and pepper. Stir to combine. Taste and adjust as needed. Fill avocado shells with tuna salad and serve.

Source: <http://cookeatpaleo.com/paleo-avocado-tuna-salad/>

Another great quick and easy lunch or snack option is pineapple shrimp on bok choy leaves.

Ingredients: 1/2 pound cooked, peeled shrimp, tails removed; 1 large cucumber, peeled, seeded, and diced; 2 1/2 cups diced pineapple from 1/2 fresh pineapple; 1/4 cup fresh chopped cilantro; 3 tablespoons lime juice; 3 heads Belgian endive,

separated into individual leaves, or baby bok choy leaves.

Instructions: Cook shrimp and place in large bowl. Add cucumber, pineapple, cilantro, and lime juice and stir to combine. Arrange leaves of choice on serving platter and spoon 2 tablespoons of mixture onto each leaf and serve.

Source: <http://www.100percenthealth.us/6-months-to-year-1/autoimmune-healthy-meals-recipes/>



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

Newsletter Edited by Carolyn B. Collier, PTA

At Active Physical Therapy Solutions,
we utilize the most cutting edge
treatment 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 personal goals!

...BECAUSE LIFE SHOULD BE

ACTIVE!

Nutrition 101: Top Diet Changes for Autoimmunity, Part 1

In autoimmune disease, the body starts to target its own organs since the body is unable to differentiate between a foreign invader from the body's own tissue. The body also may not be able to regulate how intense the immune response is leading to damage to various parts of the body. This is why what you put in your body is crucial when dealing with autoimmune conditions. If your body is already under attack from your own immune system, it is necessary to remove any foods that are going to cause additional inflammation and damage. Examples of autoimmune diseases include lupus, celiac disease, Type 1 diabetes, Graves disease, inflammatory bowel disease, psoriasis, rheumatoid arthritis, Hashimoto's thyroiditis, and even multiple sclerosis.

The following trigger foods cause digestive and immune system problems, which include gut inflammation, imbalances in gut flora (dysbiosis), damaged structural integrity of the intestines ("leaky gut"), nutrient deficiencies, and immune system impairment. Often these foods do damage without causing obvious digestive distress.

The top trigger foods to remove are:

- **Gluten**—the gluten found in products today has been man-made and manipulated in processing so that gluten is extremely difficult for the body to recognize.
- **Processed foods**—the Standard American Diet (S.A.D.) is filled with processed foods

that are loaded with hydrogenated oils, high fructose corn syrup, artificial sweeteners, trans-fats, refined grains, and sodium chloride (processed white table salt).

- **Sugar**—glucose, fructose, and sucrose weakens the ability of white blood cells to destroy biological agents. This weakening begins within a half-hour of eating sugar and lasts for 5 hours.
- **White table salt**—too much refined and processed salt may be one of the environmental factors causing an increase in autoimmune diseases. Table salt contains sodium chloride among other chemicals, iodine, preservatives, and sometimes sugar; sea salt does not.
- **Grains**—can cross-react with gluten, meaning they cause an immune response in some people. Cross-reactive grains include rye, barley, spelt & kamut, oats, millet, corn, and rice.
- **Legumes**—including bean, lentils, peanuts, peas, and soybeans, are high in lectins and saccharides (sugars) that feed harmful intestinal bacteria and damage the intestinal barrier ("leaky gut") and can lead to autoimmunity.
- **Dairy**—drinking milk has been associated with an increased risk for numerous autoimmune diseases because it is difficult to digest and causes inflammation.
- **Eggs**—particularly egg whites, can permeate the

gut lining and cause the immune system to react even more.

- **Tree Nuts**—are one of the top allergens and most common food sensitivities. Those with autoimmune disorders are more likely to have a sensitivity or allergy to nuts (and seeds) than other people. An elimination diet should be done to determine if you have a sensitivity to a certain nut or not. Keep in mind that once an allergy is present, it will not go away and you need to remove this food from your diet for life.
- **Cross-reactive foods**—are foods that the immune system mistakes for gluten. They include milk chocolate, instant coffee, all cereal grains, corn, rice, yeast, millet, and milk. People sensitive to gluten must also consider eliminating these foods.
- **Nightshade vegetables**—such as tomatoes, eggplant, potatoes, peppers, and even goji berries, can increase inflammation and joint pain in those with autoimmune disease.

It can be daunting to contemplate the dietary changes that are usually needed in order to reverse your autoimmune condition(s). But, many have done it with wonderful results. Once you experience freedom from symptoms by removing your food triggers and adding in nourishing foods, you'll be glad you did!

Article by Carolyn Collier, PTA

Sources: <http://www.healingisfreedom.com/science/top-five-autoimmune-triggers-food/>, <https://www.consumerhealthdigest.com/>