

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

APTS Monthly



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Office Hours:

Monday - 8:00am - 5:30pm

Tuesday - 8:00am - 7:00pm

Wednesday - 8:00am - 6:00pm

Thursday - 8:00am - 7:00pm

Friday - 8:00am - 5:00pm

Saturday - 8:00am - 1:00 pm

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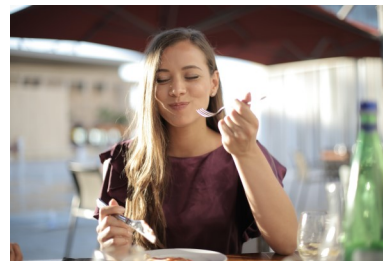
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You Really Are What You Eat

When it comes to injuries such as muscle strains, ligament tears, nerve irritation, tendon tears, tendonitis, etc., most people would think about taking Advil, getting a cortisone shot, receiving physical therapy or chiropractic treatment, or even having surgery. All of those respective treatments are effective when provided to the appropriate conditions. The thing that most of us fail to recognize is the importance of diet in healing or preventing various injuries or conditions that occur to our muscles, tendons, and ligaments. There are three main dietary components in particular that can have a substantial influence on the recovery and prevention of injury. These three components are simple yet elusive: calcium/magnesium and zinc, hydration, and an anti-inflammatory diet.

Calcium and magnesium are essential minerals for all of our bodily systems. Calcium is required for all muscle contractions and nerve functions. Without calcium, it is difficult for our systems to function at their best, whether you are competing in a marathon or healing from a surgery. One area that calcium is helpful with is cramping of the leg muscles. Cramping can occur in the highly conditioned athlete or the deconditioned patient. Cramping is a sign of a deficiency. The myth of cramping is that it occurs from lost sodium. This is true if the conditions are right. A patient who is in poor physical condition might cramp during simple rehabilitation exercises. In this scenario, the likely culprit is a low reserve of calcium to assist in muscle contraction. How much calcium do we need? Here are daily doses for specific age categories: 9 to 18 years: 1300 mg, 19 to 50 years: 1000 mg, 50+ years: 1200 mg. Remember that these doses are for the general public. Athletes in training or a patient recovering from an injury that gets the "minimal" dose through their diet will still need to take a calcium supplement to make up for the calcium that is used for aggressive



exercise or rehabilitation.

Our bodies have been estimated to be 60-75% water depending on the source that you read. Human systems need adequate hydration to function properly and heal appropriately. It astonishes me each day knowing how many people walk around "relatively dehydrated". For example, if your muscles are dehydrated, they are acting like that dried out sponge under your sink—you squeeze it and it crumbles. Adequately hydrated muscles act like that nice new sponge, absorbing nutrients and doing a great job for you. As a general rule, if you are not drinking at least half your body weight in ounces of water then you are "relatively dehydrated". You don't have to drink water specifically but following simple hydration rules can help improve your body's training and recovery systems. Drink fluids that are non-carbonated, caffeine free, and alcohol free. Limit fruit juices, as they are high in simple sugars. Sports drinks, such as Gatorade, should be diluted 50-50 with water. Diluting sports drinks improves absorption, reduces calories, and helps your budget! This formula, from the International Sports Medicine Institute, will help calculate your daily water intake: 1/2 ounce per pound of body weight if you're not active (eighty ounces a day if you weigh 160 pounds), and 2/3 ounce per pound if you're athletic (106 ounces a day, at 160 pounds).

The third item has been called "anti-inflammatory" nutrition. This eating approach consists of foods that produce anti-inflammatory compounds rather than pro-inflammatory compounds. The main idea of

an anti-inflammatory diet is to avoid "bad" fats and to consume "good" fats while reducing the intake of processed foods (commercial white bread, etc.) and eating whole foods (fresh fruits and vegetables, etc.).

The "bad" fats are polyunsaturated and partially hydrogenated fats and oils. These fats are found in most processed foods, lead to the production of pro-inflammatory compounds and should be eliminated from the diet. Trans-fats, also fit into the "bad" fat category, are found in margarine and shortening and should also be avoided. Olive oil is a great alternative to margarine or shortening and contains omega-9 fatty acids, omega-9 fatty acids, which work with omega-3 essential fatty acids benefiting the body.

Good fats include omega-3 fatty acids, which are found mainly in cold-water fish. These include mackerel, salmon, sardines, anchovies and herring. Omega-3 fatty acids are also found in walnuts, Brazil nuts, almonds, pumpkin seeds and sunflower seeds. Additional foods possessing anti-inflammatory properties include fruits, vegetables and grains. Fruits and vegetables included most berries, kiwi, peaches, mango, cantaloupe, apples, carrots, squash, sweet potato, spinach, broccoli, cabbage and brussel sprouts. Grains include lentils, chickpeas, brown rice, wheat germ and non-instant oatmeal.

Competing athletes or patients have at their disposal progressive nutritional approaches that promote prevention and recovery. As always speak to your healthcare provider to make sure you can safely make these changes given your specific medical history. You really are what you eat so eat wisely this new year!

Article by Dale Buchberger, DC, PT, CSCS



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

Exercise of the Month: Sidelying Shoulder Abduction

This exercise is one of the first exercises we give patients who come in with shoulder problems. It is part of the “Buchberger-12” series of 12 exercises for the shoulder and is an important exercise in strengthening the rotator cuff muscles. “Abduction” means a type of movement that draws a limb away from the body. There are several variations to this exercise; this is the most basic form for beginners.

Lie on your side with the af-

fectured arm up and your unaffected arm supporting your head. Keeping the elbow fully extended, raise the arm about 30-40 degrees off of your hip with your palm facing the floor. Slowly lower. The movement should be slow and controlled throughout; there is no need to hold at the top of the movement. Be sure not to lift your arm past 90 degrees. Perform 2 sets of 10-15 repetitions to start, gradually working up to 30 repetitions. When 2 sets of 30 repetitions no longer fa-

tigues you, you can put a 1-pound weight to your hand and drop the repetitions to 12, working your way back up to 30. You may continue this progression with 2 or 3 pounds as well, but do not use a weight heavier than that until you consult your physical therapist.

As with any and all exercises, if you experience increased pain that does not resolve, make an appointment for an evaluation by a health care provider.

Six Years on Columbus Street!



Active Physical Therapy Solutions has been at home on 91 Columbus Street for six years on January 5, 2021! Our new location has served us well the past six years and, despite the pandemic, we have been steady! Thanks to all of you for your patronage, support,

and referrals! We look forward to serving this community for years to come. Please let us know if we can be of service to you in any way in 2021, whether it be physical therapy or chiropractic care, speaking or community service events, or student shadowing.

APTS donated a large number of items to The Salvation Army on December 21, 2020. They were very grateful for all of the donations. Thank you to all who contributed!

If you need to cancel an appointment, please call the front desk at APTS at 315-515-3117. If you are friends with one of the staff, please do not text this staff member and ask them to cancel your appointment for you. Thank you for your cooperation!

COVID-19 & Cold and Flu Season

This year’s cold and flu season is unlike any other since we are still in the midst of the coronavirus pandemic. Since the flu and COVID-19 can bring on similar symptoms, please be on high alert and please be flexible! If a member of the Active PT Solutions staff and/or another patient(s) start developing any symptoms, we have little choice but to treat all symptomatic situations

as COVID until such time as the state of New York informs us. Subsequently, we may need to cancel/reschedule your appointment at a moment’s notice so as to reduce the spread of such illness! Of course, we hope that the measures we are taking to prevent the spread of COVID will slow flu transmission, but that is not guaranteed. On top of

that, the risk of getting both at once, having an immune system that is suppressed by the flu while contracting the coronavirus, could be a major health emergency. PLEASE call the office, even if it is last-minute, if you develop ANY symptoms of ANYTHING—including a runny nose! If you are unsure, you should still call the office. Thank you!

It's "Knot" A Knot



Patients often come into the office with the complaint of having

"knots in my muscles" that are painful. The reality is that there is no such thing as a "knot in a muscle". The term "knot" is essentially a lay term to describe a focal area of any particular muscle that has become tight and restricted. Some people use the term "knot" and "trigger point" synonymously. So the question remains, what is a "knot" and why do we get them?

While there is still no scientific consensus on why these "knots" develop, we know they tend to appear after the muscle suffers an acute injury or undergoes repetitive motions. These so called "knots" may also occur when the patient's physiology is compromised or altered in situations like dehydration or extreme exercise, neurological conditions like Parkinson's disease, and endocrine disorders like thyroid disease. They often occur in the postural muscles of the shoulders, back, or neck.

Muscles are basically a series of tubes within tubes within tubes, and these tubes are made up of a series of filaments that will slide past one another causing the muscle to contract. When the sliding filaments become restricted and stop sliding, the tubes begin to adhere to one another. Because of the restricted motion, these areas will experience reduced blood flow, poor oxygenation, and will lack other key nutrients such as calcium. Stiff, restricted, and "knotted" muscles tend to allow the accumulation of waste products. These waste products are irritants and will lead to pain when they go untreated. The cumulative effect of these factors may explain why muscle knots don't usually

resolve on their own. Injuries caused by direct trauma such as an automobile accident will damage the sliding filaments, cause swelling, and ultimately restrict the fibers or tubes from moving. This area will stiffen and form the "knot".

Sitting for extended periods of time with poor posture such as holding a "head down" posture seen with computer work or excessive text messaging will lead to a similar physiologic response as a forceful trauma. The difference is that the trauma happens in a split second and the repetitive strain injury happens over a period of time.

Overuse of the muscles from repetitive strenuous exercise including weightlifting, running, cycling, or exercise classes can produce low-level muscular damage and inflammation resulting in stiff or immobile muscle fibers. Emotional stress can be a form of repetitive strain or muscular overuse. Being anxious or stressed will cause us to unconsciously tense our muscles. This chronic sustained muscle contraction will cause reduced nutrient and oxygen supply leading to low level inflammation and swelling. In the end, this type of situation will lead to the restricted motion and stiffness that we refer to as a "knot".

The first step in the prevention or treatment of "knotted muscles" is to hydrate. Simply put: the majority of people do not drink enough water. There's some debate about whether or not the conventional wisdom of "eight glasses of water a day" is overkill, but if you are experiencing frequent muscle knots, it could be a hint to hydrate. This starts by reducing the consumption of beverages that contain alcohol, caffeine, and phosphorous and replacing them with water. A simple rule is to drink 66% of your body weight in water per day. In other words, if you weight 150 pounds then you should drink 100 ounces of water per day.

Direct pressure can be used to help relieve or reduce the stiffened area of a muscle. Things such as rolling on a tennis ball to rolling on a foam roller will help reduce the stiffness and improve the circulation. Manual therapy techniques such as Active Release Techniques, Instrument assisted soft tissue techniques, cupping or body tempering can help to treat and reduce these knots.

Using things like heat or ice with not necessarily resolve the knotted area but they will help increase circulation and remove swelling from the muscle fibers and thus improve the chances of restoring movement to the stiffened tissue. If you are a smoker you are more likely to develop restrictions in your muscles leading to chronic knots. It appears that smoking has been linked to an increase in muscular restrictions and inflammation of the muscular wrapping referred to as fascia.

As we age adding flexibility training and stretching to our daily routine is increasingly important. Aging muscles, tendons and ligaments naturally stiffen especially if you are sedentary. Performing some simple flexibility movements during the day may help prevent or relieve those restrictions.

New science is showing a relationship between calcium and nerve response. Since the majority of our food supply is mineral deficient adding a calcium supplement to your diet may reduce the tension in your muscles.

Understanding that the stiff or tight area of a muscle is not actually a "knot" and more about getting the internal structure of the muscle to slide like a piston helps to direct a more effective management.

Article by Dale Buchberger, DC, PT, CSCS

A chronic sustained muscle contraction will cause reduced nutrient and oxygen supply leading to low level inflammation and swelling. This will lead to the restricted motion and stiffness that we refer to as a "knot".

APTS Recipe Box: Dairy-Free Paleo Pizza Crust

This crispy paleo pizza dough is dairy-free and is made with tapioca flour and almond flour.

Ingredients: 1/2 cup olive oil, 1/2 cup water, 1/2 teaspoon sea salt, 1-1/2 cups tapioca flour, 1 tsp fresh garlic (diced), 1 large egg, 1 tsp Italian seasoning, 1 tsp superfine blanched almond flour.

Instructions: In a small pan, add olive oil, water, sea salt, and garlic and bring to a boil. Remove from the stove, add tapioca flour, and mix. Let sit for 2 minutes. Work in Italian seasoning and egg. The dough should be warm, soft, and pliable but not sticky; if sticky, add more flour. Shape into bread rolls, or roll/flatten dough between two sheets of parchment paper. For a crispy

crust, keep the thickness at 1/4"-1/2". Anything thicker than this will be a soft crust.

Remove the top piece of parchment paper and sprinkle the top of the dough with almond flour. Bake at 350 for 25 minutes on a stainless steel baking sheet. When the crust is done, top with your favorite toppings and bake for 10 minutes more until toppings are warm.

Source: agirlworthsaving.net/paleo-pizza-crust



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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!**

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Nutrition 101: Getting Enough Vitamin D in the Winter

Because your body produces vitamin D via your skin after exposure to the sun, your levels can become dangerously low in the winter months. It is very important to ensure that your body has adequate levels of vitamin D, which helps prevent osteoporosis, heart disease, cancer, Alzheimer's Disease, stroke, high blood pressure, diabetes, and it may also slow the aging process. The best way to get vitamin D is naturally from the sun. Just 15 minutes of sun at mid-day in the summer is sufficient. However, the winter months make this extremely difficult. Unfortunately there are only a few vitamin D food sources, as our bodies were really designed to get the vitamin D we need from the sun. Good food sources include fatty fish such as salmon, tuna, & mackerel; mushrooms; eggs; and vitamin D fortified foods, such as milk. As far as vitamin D supplements go, we don't really

know if they are actually healthy for us or not. The recommended daily allowance of vitamin D is 600 IU/day. For those who are vitamin D deficient, they may need higher amounts, up to 1,000 IU/day, until their vitamin D levels are in the normal range. It is important to ensure that we don't get "toxic" on vitamin D, and it's always much better if we can get them naturally rather than in a pill. So the best rule of thumb is (1) get 15 minutes of sun each day in the late spring, summer, and early fall, (2) eat two servings of a fatty fish each week from November to March, and (3) for those that are vegetarian or hate fish, drink 3 cups of a vitamin D fortified milk each day from November to March, as liquid vitamin D is better absorbed than the pill form.

Article by Carolyn Collier, PTA

It is very important to ensure that your body has adequate levels of vitamin D, which helps prevent osteoporosis, heart disease, cancer, Alzheimer's Disease, stroke, high blood pressure, diabetes, and it may also slow the aging process.

