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Office Hours:

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8:00am - 5:30pm
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8:00am - 5:30pm
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APTS Monthly

VOLUME VIII, ISSUE XI NOVEMBER/DECEMBER 2018

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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 have a cup of cheer this holiday season!

Article by Dale Buchberger, DC, PT, CSCS

Exercise of the Month: Concentric/Eccentric Bicep Curl

Start position (top left); exercise positions (top right, bottom left); end position (bottom right)

The biceps are a set of muscles in the front of the upper arm—most people know where they are. *Biceps* means there are two heads of the muscle. These muscles work primarily to bend the elbow when the palm is facing forward, and also to turn the forearm as in using a screwdriver.

As a general rule, when you are lifting a weight against gravity, you are in the *concentric* phase; this is the "work" or effort phase. Likewise, when you are lowering the weight in the same direction as gravity, you are in the *eccentric* phase. The biceps shorten in the concentric phase to lift against gravity and lengthen in the eccentric phase to lower against gravity—acting like a brake to prevent you from injuring the muscle. Muscles are approximately 40% stronger during eccentric contractions than during concentric contractions, but they can also damage more easily and result in more delayed onset muscle soreness in the eccentric phase.

To perform this exercise, start by bending the elbow with your palm up, weight in hand. Take 2 seconds to complete this motion. Once your elbow is fully flexed, turn your palm out (this fully lengthens the biceps), slightly extend your wrist, and lower the weight SLOWLY. Take 5 full seconds to complete this motion. Start by performing 2 sets of 10-12 repetitions using a weight with which you can comfortably perform 10-12 repetitions, fatiguing by the last 2-3 repetitions. Gradually work your way up to 25-30 repetitions using this weight. Once you can comfortably perform high repetitions, you can drop the repetitions back to 10-12 and increase the weight by 1-2 pounds. The biceps can handle a lot of weight, so you can continue this cycle until you reach 15-20 pounds! As always, if you experience 5/10 pain or greater, discontinue exercise and seek the help of a health care professional.

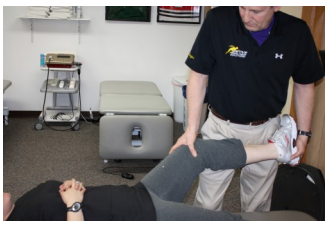
NEW EMPLOYEE ALERT!

We have a new front desk staff member! Sue Fiermonte joined our team at the end of September. She comes from the front desk of another health care office with 20 years of experience. We love having her with us so please make her feel welcome!

Active Release Technique Recertifications

Tom Zirilli, PT; Maggie Whitehouse, PTA; and Carolyn Collier, PTA are all newly recertified in Active Release Technique. This recertification is required every year, one year being online, and every other year (which happened to be this year), we must travel to a location where a class is offered.

This year, Maggie went to Colorado Springs, CO, for a 4-day course entitled "Spine Level 2" from October 25-28. That same weekend, Carolyn traveled to Fort Lauderdale, FL, for a one-day course on October 27 entitled "Long Tract Nerve Entrapment". Then in November, Tom drove to Toronto, ON, Canada, to take the same 4-day "Spine Level 2" course that Maggie had taken. Dale Buchberger, DC, PT, CSCS, plans to take the same "Spine Level 2" class in New Jersey in January of 2019.



APTS is Doing Good for Those in Need

In November, Active PT Solutions employees each donated a toy to the Marine Corps Toys for Tots program through Edward Jones.

In December, we are once again hosting a Christmas Food Drive to benefit the Cavalry Food Pantry here in Auburn. They are looking for non-perishable food items, personal care products, and gently used household or clothing items. Diapers and paper towels are also a need. We are told that people often come to this food pantry with only the clothes on their back. If you would like to donate anything, please bring your items to our office no later than Wednesday December 19th. Thank you for your support of a worthy cause!

Instant Gratification in Healthcare: It Doesn't Work

It would be difficult to debate that today's world has largely been groomed into an "instant gratification" society. Like it or not, if you watch television, use a cell phone, or surf the Internet, you are being trained to live a life of instant gratification. This occurs in everything from your purchasing habits to relationships. Companies such as Apple and Samsung draw you in with the advertising strategy telling you why you need to wait in line to get the latest and greatest version of their products, even if you can't afford it. Patients are now bringing this societal training into their healthcare. Many patients seem unrealistically disappointed if their condition is not cured in one visit or one treatment. Here is the bad news: unless Dr. McCoy from Star Trek arrives with his "Tricorder", getting well will be one thing that maintains a focus on "delayed gratification".

There are five main reasons why rehabilitative medicine, such as physical therapy, takes more than one visit. While some people may experience symptom relief in one visit, they certainly are not "fixed" in one visit. The simple answer is time. The human body takes time to heal, time to rehabilitate, and time to return to pre-injury levels of activity. How much time? It can take as long as a year to heal from any particular surgery or injury depending on the invasiveness and complexity of the surgery or injury. It can take a minimum of 4 weeks to begin to retrain your body to perform an activity such as walking or running. Most strength gains within the first 4 weeks of rehabilitation are not actually strength gains. It is your brain learning to perform the activity or exercise. You merely get better at performing the exercise. This is referred to as neurological training. It takes a minimum of 8 to 12 weeks to generate true muscle strength via muscle cell hypertrophy (enlargement of individual muscle cells) or hyperplasia (increase number of muscle cells). No one gets stronger or better at a task in one visit.

Once a plan of treatment and recovery is developed, it takes dedication from both the provider and the patient to follow through with the plan. There are usually moments along the way when the patient's dedication will be tested. This is when the healthcare provider needs to assist the patient with either following through with the plan or recognizing a medical reason why the plan is not working and alter the plan to improve the rate of progress. Good communication between the provider and the patient can usually answer any questions as to why the plan is speeding up or slowing down. Sometimes patients that have had a complex surgery or injury can feel as though they are behind schedule when they are actually *on* schedule.

The plan requires that the patient take responsibility for following through on the various aspects of the plan. This is one of the more difficult aspects of a plan for rehabilitation of an injury or surgery. This means that the patient must keep their scheduled appointments, communicate with the treating provider, and follow through with the prescribed home exercise and treatment program. The patient may be asked to perform home exercises two times per day. Finding the two times can often be a challenge in a modern world. Therefore, performing a home rehabilitation program may require changes in the patient's schedule of normal daily activities. It also requires cooperation and understanding from the patient's family.

Behavior modification is the fourth and most difficult aspect. Changing the patient's mindset from instant gratification to delayed gratification will make the process smoother and reduce frustration. Make your home exercise program a priority instead of watching television. Change your diet to allow healing. Reduce harmful activities. Be open-minded to the rehabilitation process.

Finally, understand that the process of rehabilitation and healing is not linear, and that treatments and exercises are prescribed for specific reasons with specific goals in mind. Symptoms such as pain will change as the process goes on. As the rehabilitative process becomes more challenging, pain may temporarily increase. There may be increases in pain early in the process during exercise because the healing tissue is being selectively worked. Specific stresses improve healing but it doesn't mean it won't hurt along the way.

Article by Dale Buchberger, DC, PT, CSCS

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APTS Recipe Box: Giant Skillet Gingerbread Cookie

This super soft and chewy skillet gingerbread cookie recipe is bursting with seasonal holiday spices!

Ingredients: 3 large eggs; 1/4 cup melted coconut oil; 1/4 blackstrap molasses; 1/2 cup unsweetened coconut milk; 1/2 cup coconut flour; 1 tbsp cinnamon; 1 tbsp ginger; 1/4 tsp nutmeg; 1/2 tsp allspice; 1 tsp baking powder; 1/4 tsp salt

Instructions:

- Preheat over to 350 degrees F.
- Prepare a cast iron skillet by greasing it with melted coconut oil and set aside.
- In a small bowl, sift the coconut flour, baking powder, salt, cinnamon, allspice, nutmeg, and ginger until the ingredients are evenly dispersed.
- In a large bowl, whisk together eggs with coconut milk, coconut oil, molasses, and vanilla extract. Slowly fold the dry ingredients into the wet ingredients. Mix until ingredients are combined. Do not overmix—this will make the batter stiff.
- Transfer the batter to the prepared skillet. Using a spatula, spread the batter into an even layer.
- Bake 22 minutes or until the edges are browned and the cake is set in the center. It's ready when a toothpick inserted in the center comes out clean.
- Remove from oven and cool 30 minutes in the skillet before slicing into 6 large slices. Serve warm. Top with coconut cream and sprinkle with cinnamon, if desired.

Source: *https://blog.paleohacks.com/gingerbread-cookie-recipe/#*

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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: Why Am I Always Hungry?

Do you feel like a bottomless pit, even after mealtime? High-leptin foods may be to blame. You can avoid feeling ravenous by keeping these foods in your diet.

You eat a balanced lunch every day but you find yourself starving by mid-afternoon. You go out for a healthy dinner with friends but are tempted to stop for an ice cream on the way home. Why are you hungry all the time? If you have the desire to eat uncontrollably, it could be that you have a leptin disorder—something you can affect by getting more of what we call "leptin foods" into your diet.

Keep in mind that feeling hungry all the time could also relate to a number of other factors, such as depression, stress, dehydration, drug side effects, skipping breakfast, or even looking at photographs of delicious-looking food!

What is leptin? It is produced in your fat cells and it is sometimes known as "the fullness hormone". It sends signals to your brain to tell it that you're full and you can stop eating. At the same time, leptin sends signals to your brain to turn on your metabolism and start converting food to energy.

As leptin levels rise, you experience a diminished appetite, and as leptin levels decrease, the result is feeling hungry. Likewise, rising leptin levels will increase your rate of metabolism while falling levels will slow your metabolism. In short, leptin regulates both your appetite and your metabolism. If your body experiences leptin resistance, it won't get the message to begin metabolism.

There are a number of ways through which we become leptin-resistant. Besides poor diet, depression, stress, or dehydration, other factors can come into play, including a lack of exercise and a sedentary lifestyle. A lack of sleep can also raise your leptin resistance; seven to eight hours of sleep per night results in higher leptin levels.

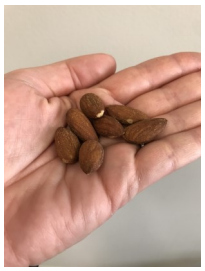
So which foods increase our leptin sensitivity, thus decreasing our leptin resistance and keeping our appetite more normal? You can't go wrong to keep these seven options in your diet:

(1) ***Apples.*** Research has show that pectin, as found in apples, may be effective in fighting back leptin resistance.

(2) ***Oatmeal.*** Rich in fiber and known for decreasing insulin levels, oatmeal can help prevent that "starving" feeling.

(3) ***Lean proteins.*** The protein you get in turkey, chicken, and other lean meats can help to raise your metabolism and reduce leptin resistance. The same goes for fish.

(4) ***Green tea.*** A European study involving mice showed that green tea is effective in decreasing leptin resistance.



(5) ***Almonds.*** Besides the essential "healthy" fats, fiber, and protein you get from almonds, you also get essential fatty acids that boost metabolism and leptin sensitivity.

(6) ***Broccoli.*** A vegetable known to decrease your leptin resistance, it is also generous in calcium and vitamin C.

(7) ***Eggs.*** Known for their vitamin B12 and protein contributions, eggs can lift your metabolism and help keep you from becoming leptin-resistant.

Whole grain cereals, skim milk, and low-fat yogurt also qualify as "leptin foods". As with the other choices above, they help keep your body sensitive to leptin and, thus, avoid that famished feeling.

Article by Carolyn Collier, PTA

Source: https://universityhealthnews.com/daily/nutrition/leptin-foods-answer-always-hungry