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Upcoming ACSM Meetings

ACSM Conference on Integrative Physiology of Exercise

September 17-20, 2014 - Miami Beach, Florida, USA

ACSM Advanced Team Physician Course

December 11-14, 2014—Tampa, Florida

ACSM Regional Chapter Workshop

A Regional Chapter Workshop was held during the national meeting in Orlando, Florida. The meeting was very informative, and as part of the agenda, 5-year chapter trends were discussed. RMACSM, although one of the smallest chapters by number of members, has actually been growing steadily and has had some very encouraging membership results. Since 2009, our overall membership has increased by almost 70% and most importantly, our student membership has more than tripled.

However, we still have work to do. Compared to our Chapter membership, there are more than *twice* the number of members at the national level from the Rocky Mountain Region. This coming year, let's all commit to increasing membership and participation at the regional level. Let's encourage our colleagues as well as students to join and become active in their regional chapter. Opportunities to serve the organization at the regional level not only promote our profession, but they also provide visibility, networking opportunities, and can be a big boost for Fellow status.

Annual Chapter Social

For the Chapter Social during this year's national meeting, RMACSM hosted a dinner at The Pub in Orlando, Florida. Twenty-six members attended the event. Some of the schools represented included University of Northern Colorado, Colorado State University, Colorado Mesa University, and University of Colorado at Colorado Springs. We were very happy to see so many of our student members there, including Christine Schaeffer (CSU) and Eric Bredahl (UNC). Mike Brown (Your Movement Health, LLC), one of our community-based professional members, also attended. Dinner was excellent and everyone was in good spirits.

This was our second year of hosting a dinner at a restaurant at the ACSM National Conference. In the past, chapter socials were held in a room at the conference site with very low attendance and therefore not cost effective. The RMACSM Board hopes to see many of you at the national conference in San Diego, California next year and welcome any suggestions for the chapter social there. Board member contact information can be found on the RMACSM website: <http://www.rmascsm.org/> Click on the Contact the Board Tab.

Above information provided by Melissa Benton—RMACSM President Elect

Mark your calendars!
RMACSM 2015 Annual Meeting
March 27-28, 2015
Springhill Marriott in Denver

Top 10 Simple Ways to Eat Healthy on a Budget

(information from ACSM Fit Society - Spring 2011 edition—article written by Stacy Mitchell, RD, ED)

Healthy and inexpensive? Many people don't think these words belong in the same sentence. Simple, smart planning with your food can make it happen every week. Prioritize the foods in your diet, and go for nutrient-dense foods first, such as fruits, vegetables, whole grains, lean protein and low-fat dairy. Cut the junk out of the grocery cart, as you get the biggest bang for your buck with healthier foods.

1. Shop the weekly ad from your local grocery store. Take the time to plan weekly meals using healthier ad items.
2. Embrace seasonal fresh produce—now is the time to visit your local farmer's market or watch for local produce in your grocery store. If you have the space, a small garden will provide exercise and nutritious produce.
3. Plan a meatless Monday by using beans, eggs, nut butters or cheese as the protein in your meal.
4. Stretch meat with beans—beef and bean burrito, for example.
5. Go for store brands—the quality is comparable to name brands and can save 15-20% over the name brand. Keep in mind #1 above because stores frequently have sales on name brand products and the price may be comparable to the store brand.
6. If your grocery store has a salad bar and you need only a small amount of fresh fruits or vegetables, this may be cost effective for you.
7. Don't forget frozen vegetables or fruit—it's always a good idea to keep some favorites in the freezer for those times you don't have fresh available.
8. Get back to basics by not relying on prepackaged meals or meal kits. These prepackaged items are often very high in sodium and cost per serving will be higher than making a meal from scratch.
9. Reduce fat in ground beef by draining fat from beef crumbles after cooking or even rinsing the beef crumbles with warm water and patting dry.
10. Eating more meals at home can really add up to big savings. Plus, you can cook once and serve twice by using leftover ingredients for lunch the next day. Pack your lunch for work or school and you will not only save a lot of money, but you will be eating much healthier. Keep some simple things for packing lunches such as: sliced meats and cheeses, hard boiled eggs, yogurt, fruits and vegetables that are washed and ready to put into a lunch bag.

Exercise is the Best “Medication” We Have!

(Information from ACSM Fit Society, June 2014—Article written by John Higgins, MD, FACSM)

If I told you I had a pill that can make you leaner, boost your energy and confidence, help you sleep better, lower your blood glucose/cholesterol/blood pressure, decrease your chances of stroke/heart attack/blood clots and build your bone strength, would you want it? And how about if it greatly increases your chances of living longer and being able to do more of those awesome things like fun family barbecues, traveling to exotic beaches, climbing a big mountain, biking for a charity or rocking out at a block party?

This daily “medication” is as simple as consistently building physical activity into your daily routine. The myriad effects of exercise on our body, from improving our musculoskeletal and cardiopulmonary systems to enhancing neurological and endocrine function, can help prevent chronic diseases as well as help maintain independent and healthy living. The list of medical conditions improved by exercise includes:

- Hypertension: reduces risk by up to 40%
- Heart disease: reduces risk by up to 40%
- Stroke: reduces risk by up to 27%
- Cancer: reduces risk of colon cancer by up to 60%, reduces mortality due to and recurrence of breast cancer by up to 50%
- Diabetes: reduces risk by up to 58%
- Alzheimer's disease: reduces risk by up to 40%
- Dementia: prevents dementia by up to 80%
- Peripheral artery disease: improves calf tissue oxygenation, so you can walk 50% further
- Exercise also improves cholesterol levels, arthritis, respiratory illness, depression and anxiety.

Other ways exercise can improve your daily life:

- Academic performance/Intelligence: higher SAT scores for children and adolescent exercisers; better results in math and English (there is a dose/response effect—the more exercise; the better)
- Improves concentration, memory, mood
- Boosts multitasking ability
- Enhances sleep
- Better sex life and less erectile dysfunction for men.

Lack of exercise has been listed as one of the top five causes of disease in the USA. The other four were dietary risks, smoking, high blood pressure and high Body Mass Index. And best of all, exercise is less expensive than many medications and also has few side effects.

DIY: Improving Your Flexibility and Balance

(Information from ACSM Fit Society, Winter 2012—Article written by Lynn Miller, PT, PhD, FACSM)

Two parts of fitness that are often overlooked are flexibility and balance. This may be because of conflicting information regarding their importance or relevance. However, both can play a vital role in overall fitness and function. Tight muscles can contribute to back pain or difficulty performing simple tasks, such as putting objects into overhead cupboards. While poor balance is known to increase the risk of falls in older persons, it may also affect sports performance in younger individuals. Luckily, it is very easy to work on both flexibility and balance on your own.

To train flexibility, stretching or repeated movement through a joint's complete range of motion will work to increase joint range or prevent loss of motion, respectively. To stretch a muscle, it should be put in a position that produces a slight pull on the muscle but not to the point of pain. With a static stretch, the position in which a slight stretch is felt should be held 15-30 seconds, and each stretch should be repeated 3-5 times on each side of the body. The primary note regarding stretch position is that it should not cause pain or take the joint past the normal range. There are several forms of dynamic stretching, with the key difference being that dynamic stretches take the joint and muscles through the full range of motion often repeatedly.

ACSM guidelines recommend that stretching activities be done at least two days per week. If you have lost some joint motion or feel stiff, range of motion or stretching activities should be done daily. The muscles that are most often tight are the hamstrings, hip flexors, calves and chest muscles. Each of these can be stretched using different positions, and some general motions may stretch more than one muscle group. For simplicity's sake, only common static stretches will be described below.

- **Hamstrings.** Sit on the ground with legs straight in front of you. Gently lean forward from the hips (try to keep the back fairly straight) until a stretch is felt on the back of the thighs.
- **Hip flexors.** Stand on one foot, and bring the other foot to the buttocks. Pull back gently, while keeping your knee pointed at the ground and your hip straight. If needed, hold onto a counter or chair to keep your balance.
- **Calves.** Step forward with one leg. Shift your weight toward the front leg while keeping the back heel on the ground. If you press the hip of your back leg forward, this will also help stretch the hip flexors.

- **Chest muscles.** Standing in a corner, bring hands up to shoulder height and place against the wall on either side. Keeping hands in position, lean body forward until a stretch is felt in the front of the chest. This can also be done using a doorway, turning away from the hand that is on the wall

Problems with tripping or falling often indicate difficulty with balance. Ideally, you should be able to stand on one leg for at least 20 seconds unsupported for static (not moving) balance. Balance activities can be started with simple position shifts for those that already have balance issues. Shifting should take place in all directions, including angles, with different placements of the feet. Improving balance requires a progressive challenge. This can be done by increasing the number of repetitions or the length of a balance activity, adding movement to make the activity more dynamic, or by reducing input from other senses, such as by closing the eyes. In addition, the amount of support from the arms can be progressed by using both hands, then one hand, then one finger, and finally no assistance. ACSM guidelines suggest such activities be done at least two days per week. A simple progression at home might be:

- **Weight shifts.** Step side-to-side, forward and backward. Then step forward and backward at an angle
- **Single leg stance.** Stand next to a counter or chair for support. Stand on one leg and touch the toe of the other leg to the front, side and back.
- **Single leg stance with movement.** Stand next to a counter or chair for support. Stand on one leg and perform a partial squat. Repeat five times with each leg. This will also help with thigh strength. Alternative: turn slightly to the left, then right, moving only at the hip. Repeat five times with each leg.

Other activities can also be used for flexibility and balance. Tai chi, an activity based on martial arts, is excellent for balance because it uses multiple types of weight shifts as well as standing on one leg for short periods of time. Yoga uses different body positions and more sustained holds, thus it can also be used to improve static balance and flexibility.

There are numerous DVDs and other aids available for those wishing to learn one or more of these activities. The key to any stretching or balance program is regularity, and these activities are not meant to be done at a high intensity.



MARQUETTE, Mich.—Scott Drum has set a probable fastest known time (FKT) by consecutively running the combined 83.5-mile length of Pictured Rocks National Lakeshore and Isle Royale National Park. The Northern Michigan University health and human performance professor completed the feat in just more than 24 hours, including transport time between the parks (his actual running time was 19 hours, 22 minutes).

“It was fun, but also very tough, as I expected,” Drum said. “There was more intermittent hiking with the running toward the end, especially the last five miles or so on Isle Royale. The trail was overgrown there and it took some bushwhacking to make it through. My legs are shot, but I feel good about accomplishing this goal. I’m not aware of anyone who’s attempted the two parks consecutively. Others have run both on different days.”

Drum set out on what he called his “Upper Peninsula Ultra Run Double” at 2:28 a.m. Sunday at Pictured Rocks. He traversed a 43.5-mile stretch of the North Country Trail from the Au Sable Visitor Center in Grand Marais to Munising Falls. After a car ride to Houghton and seaplane transport to Isle

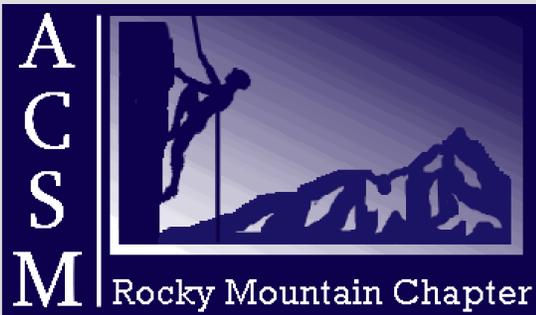
Royale, he ran another 40 miles on the Greenstone Ridge Trail from Windigo to Rock Harbor, finishing at 2:40 a.m. Monday. Drum ended the effort the same way he started: in the dark wearing a headlamp.

“This was a personally inspired challenge,” Drum said. “I like to explore the boundaries of human physiology to figure out my own physical limits and test what I’m capable of doing in a day. I daydreamed about an adventure run with a twist, so I looked at the geography near where I live and came up with the off-kilter idea to link the two cool National Park Service units in the Upper Peninsula. There were some interesting logistics to figure out. But an experience like this reinforces what I teach at Northern. Confronting challenges related to carbohydrate-fat metabolism, muscle function, fatigue and the psychological aspects brings exercise science alive for me and hopefully for my students.”

Drum has been running since he was 10 years old, first as a “speedster” doing 5Ks and then progressing to more mileage and less structured workouts. While competitive in spirit, he said he doesn’t race a lot. He prefers trail ultra runs twice a year in the Colorado Rockies, Grand Canyon, Yosemite and other scenic locales. Drum’s previous distance record in a day was 50 miles. To prepare for Sunday’s grueling challenge, he ran about 80 miles per week on the wooded and hilly trails near Marquette.

“That included a couple of long runs a week ranging from 20-31 miles while figuring out how to fuel myself along the way to maintain an even energy level,” Drum said. “The distances tapered off near the end of my training so I could conserve energy for the actual run. My concerns Sunday were keeping properly nourished and hydrated, not overextending or injuring myself and hoping everything else would come together as far as weather, the rugged terrain—especially in the dark—elevation gain and the unexpected surprises that always come up.”

Following fastest known time protocols, Drum declared his intention in advance on the FKT website, paid his respects to “those who came before” him and gave details on what he was attempting and when as an “open-book” invitation for others to watch or participate. Drum said he hopes to inspire others to either perform the same feat faster or find their own creative ways to physically challenge themselves.



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articles in future Newsletters.**

Upcoming Events

Location	Event	Date
Loveland	Valley 5000 Road Race 5K	Aug 15, 2014
Ft Collins	Run For Hope	Aug 16, 2014
Denver	Broncos Back to Football 7K run/walk	Aug 31, 2014
Loveland	Mud Brigade	Sept 6, 2014
Morrison	Colorado 9-11 Memorial Stair Climb	Sept 11, 2014
Denver	Colorado Symphony 5K run/walk	Sept 20, 2014
Ft Collins	Equinox Half Marathon and 5 mile	Sept 21, 2014
Louisville	Louisville Trail Half Marathon/10K	Oct 12, 2014

This is just a small sample of events listed on active.com. For more information on any of the above or to register, go to active.com

Yikes...That Was Close!

By Rose Steen



Have you ever experienced a close call with lightning? I've been scared a few times out on the golf course when a storm has come up suddenly but have had no scary encounters.

My brother was struck by lightning out in the pasture caring for a new born calf. He and the calf were both fine.

Recently two people in Colorado were killed by lightning strikes while in the mountains so I thought it would be interesting to look into some statistics for lightning strikes resulting in death. I thought that I would find that most

deaths occurred during some sort of recreational activity and that is true of about half—there's really no good data. Many lightning strikes occur during the course of regular activities—gardening, construction work (roofing, for example), in parks or other areas under trees. The good news is that the number of deaths from lightning strikes has dropped from 432 in 1943 to 2013's 23 reported deaths. The other good news is that 9 out of 10 people survive lightning strikes. Interestingly in the past 9 years, of 275 deaths from lightning, only 53 were women.

Much of the decrease is attributed to our increasingly urban society and to changes in farming practices. In the past farmers were pretty exposed out in the open fields with nothing around to protect them. Now most farming is

done from an enclosed cab tractor with rubber tires...not walking behind a metal plow pulled by horses.

An additional reason for the decrease in lightning attributed deaths is we have more warning when storms are in our areas and are more conscious of seeking shelter.

Colorado consistently ranks in the top 5 for lightning deaths and we need to remember a few basics if we are outside during summer thunderstorms:

- If you are hiking, make sure you are below tree line before the afternoon storms roll in.
- Don't stand under that lone tree out on the golf course (as tempting as it may be).
- Situational awareness is important—if you are outdoors, keep an eye on the sky and the weather app