

NEWS*RUN

National Award Winner of the RRCA Outstanding eNewsletter & Mid-Sized Newsletter

Summer 2025

2025 Upcoming Races

- July 26 Peaks Island 5 Miler
- October 5 Maine Marathon, Half Marathon & Relay
- September 28 Farm to Farm Ultra Run & Relay
- November 23 Maine Track Club Turkey Trot
- February 1, 2026 Mid-Winter 10-Mile Classic

2025 Maine Track Club **Supported Races**

• July 19 - Pat's Pizza Clam Festival Classic 5 Miler

*To check for updated MTC race dates and times, as well as register for races, visit www. mainetrackclub.com.

President's Message

By Cadence Atchinson

ummer is in full swing! I Hope you're all getting in some great miles and staying cool out there! Summer in Maine can't be topped and there are always so many great events going on, the track club has summer speed work every Monday at 6pm this summer at the South Portland Track with Coach Alice, if you haven't made it out yet I would highly recommend it, its a great fun work out with a good group of people! The Back Cove 5ks on Wednesday nights are a great place to see friends as well, Marathon Sports is putting on a great series this summer! We've also got some Track Club social events planned, including our trail run and tailgate picnic at Sebago Brewing Company on July 17th - nothing beats combining a good run with great food and even better company! We're also looking forward to getting out on Casco Bay again in September, stay tuned for the sign up for the annual members boat cruise on Casco Bay. It's always one of our favorite traditions, and the views are absolutely incredible.

For those looking to give back to the running community, we have some fantastic volunteer opportunities coming up, it's such a fun way to support fellow runners. We'll be helping out at the Pat's Pizza Clam Festival Classic in July & The Beach to Beacon road race in

Looking forward to seeing everyone out there - whether you're running, volunteering, or just enjoying good times with the MTC! - Cadence

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Welcome, New Members

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Jono Anzalone	James Hargreaves
Frances Bauer	Thomas Harvell
Amanda Bement	Samuel Holt
Corinna Campbell	Eloise Howard
Jennifer Campbell	Evan Howard
Tami Casas	Gary Howard
Thomas Chalmers	Jaxson Howard
Arianna Cortesi	Mackenzi Howard
George Cowan	Wesley Howard
Joseph Cowan	Christian Johnson
Sara Davis	Kelsey Kenny
Karen Deyesso	Gregory Kurkjian
Laura Di Tomasso	Suzanne Landry
Ted Donovan	Reed Laverack
Michael Dupuy	Kristen Levesque
Melissa Emerson	Laura Manuel
Jean Fahey	Jordan Marish
Chris Gagne	Cliodhna McCarthy
Vivienne Geyerhahn	Christine McNulty
Lucas Going	Ethan Moskowitz
James Haddow	Stephanie Pinciaro
Hamish Haddow	Kimberly Powers
Tarek Hammer	Teddy Powers

Ben Pulvino Jenn Pulvino John Pulvino Will Pulvino John Queeney Jennifer Ritchie Max Ritchie Michelle Ritchie-Haddow Audrey Rothbacher David Schwartz Emma Schwartz Jane Schwartz Lillian Shattuck Eva Shell Ariana Tabatabaie Cameron Tabatabaie Dylan Veilleux Paul Vigue Kristy Wagner Terry Walker-Brown Matthew Wolden Josh Young

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Questions? Please send your questions/concerns to Cadence Atchinson, cadi08@gmail.com

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Don't Miss These Maine Track Club's Summer Social Events!

"Trail Run + Tailgate" Summer Social - July 17

We'll meet at 5:30 for a run and then eat at Sebago Brewing at 6 pm! FREE for MTC members, post run pizza and 1 beverage ticket included!





MTC boat cruise on Sunday, September 14 from 4:00 to 7:00 PM FREE for MTC members! Come join us aboard the Casco Bay Lines! The MTC boat cruise is free and open to MTC members, your family and friends, as well as non MTC members who are interested in learning more about the Maine Track Club.



Snacks, sandwiches, desserts and water will be available to all on board - at no charge. There is a full bar available to purchase soft and alcoholic drinks. Registration for the cruise is required and will open in July. The cruise departs at 4:00pm, but guests are asked to be at the dock by 3:45. See you there!

Doctor's Corner

The Salty Truth: How Sodium Can Make or Break Your Run

By Justin Ham, DO Sports Medicine Fellow, Maine Medical Center



alt often gets a bad rap, and for good reason. It's been linked to high blood pressure, water retention, cardiovascular issues, and kidney disease. But in the world of running, too little salt can be just as dangerous. Stories of runners—especially novice long-distance athletes—experiencing low sodium levels, or hyponatremia, during races are not uncommon.

One of the most noticeable signs of hyponatremia in athletes is exercise-associated muscle cramps (EAMC). While cramps might seem like a minor inconvenience, they can be severe, presenting as intense, involuntary, and painful muscle contractions. Interestingly, these cramps don't always correlate directly with blood sodium levels, making prevention and treatment challenging. I recall a young athlete in his 20s who was brought to the medical tent during an Ironman race due to relentless EAMC. Despite his blood sodium level having been only slightly below normal, he ended up spending over two hours resting, rehydrating, and working with physical therapy before leaving the tent.

Mild hyponatremia often manifests as vague, non-specific symptoms, but when sodium levels drop dangerously low (below 120 mEq/L), the consequences can be dire, including changes in mental status, respiratory distress, brain swelling, and even death. The risk arises when sodium is lost through sweat and isn't adequately replenished, particularly if the lost sodium is replaced with excessive water, further diluting the blood.

On the flip side, sodium has also been shown to enhance athletic performance. According to the International Society of Sports Nutrition, sodium can improve performance in muscular endurance activities, including running. Their research suggests

that a dose of sodium bicarbonate, about 0.3 g/kg taken 60 to 180 minutes before activity, might be optimal, offering equal benefits to men and women. However, this comes with potential side effects like bloating, nausea, vomiting, and abdominal pain.

So, should you consider taking sodium before your run? It depends. The typical Western diet, laden with highly processed foods and restaurant meals, already contains more salt than necessary. The CDC estimates that the average American consumes over 3,300 mg of sodium daily, far exceeding the WHO and US government's recommendation of no more than 2,300 mg per day for those over 14. The American Heart Association is even more conservative, leaning toward recommending less than 1,500 mg per day for most adults.



Given these guidelines, it's essential to consider several factors, including your activity level, baseline sodium intake, training or race environment, and any previous history of hyponatremia. Casual runners and those training indoors likely don't need additional sodium bicarbonate. Elite athletes and ultra-distance runners might already have their sodium needs dialed in. For most recreational marathoners or aspiring runners, the benefits of extra sodium remain unclear.

If you're curious, start with a small amount and observe how it affects your performance, but remember to stay hydrated. And as always, monitor your blood pressure and consult your doctor before making any significant changes to your routine.



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MTC Weekly Coaching Sessions



Run with MTC: Mondays at 6:00 PM Now through September 22, at 6:00 pm, join the MTC and Coach Alice Outslay for time on the track. All ages, all paces, all goals welcome This weekly session, held at South Portland High School Track, is open to all - and a part of the MTC member benef ts. No need to sign up - just show up ready to run (bring water!). Coach Alice will talk through goals, create training plans, lead workouts, warmups, cool downs, and answer questions.

NEW RACE EVENT FOR 2025!

Sunday August 31st Fairgrounds 5k, 1 Mile & Kids Run & Epic Farmer's Market. At the Fairgrounds in Cumberland, Maine to support Maine Farms!

MTC members use the discount code: MTC to receive a \$10 off. Volunteers needed! An event is nothing without a community working together to make it memorable and well run! FMI and registrations inks visit: runlikearacehorse.com

Run With A Friend:) Maine Track Club Memberships!





The Maine Track Club is a membership organization and includes a variety of benefits:

-Weekly Coaching & Training sessions (May - September)

-FREE fun social events throughout the year. In 2025 we are hosting: a Casco Bay Lines Boat Cruise, bRUNch, picnic / pizza night at Sebago Brewing Co., book club & weekly group runs

-Race Bib Lotteries for access to entries into the TD Beach to Beacon 10K, Boston Marathon, and Mt. Washington Road Race

-Early Registration access for Maine Track Club's Mid-Winter 10 Mile Classic

- -Running Swag & Active Wear
- -Annual Membership Banquet & Awards
- -Volunteering Opportunities
- -Website & Newsletter with Run Calendars & Tips from Experts
- -And more!

Check your membership status, and join/ renew today!

How Your Running Form Affects Your Energy Efficiency: Key Takeaways from New Research

Steven A. Greenberg, MD, MS

Sports Medicine Fellow – MaineHealth Orthopedics
and Sports Medicine, South Portland, ME.

A new study published in the *Journal of Sports Sciences* (April 2025) by researchers Fukuchi, Stefanyshyn, and Wannop delves deeper into the biomechanics of running and offers fresh insights into what really makes a runner efficient. Specifically, the study examined the biomechanical factors that influence **running economy** (**RE**) – a measure of how much oxygen (VO₂) your body consumes at a given running pace (VO₂ in mL/kg/min for those interested in the math). A runner with a better RE can maintain a given speed with less effort and lower VO₂ compared to someone with poorer RE.

There are many factors that can modify RE, from the amount of time your shoe contacts the ground, to lower limb biomechanics (such as the angle of your knee during foot push-off), and especially, the type of footwear like AFT (advanced footwear technology) shoes that incorporate a carbon plate embedded in a thick and light midsole."

In this study, researchers evaluated 21 healthy, trained male runners on a treadmill while they wore three different AFT-equipped middle-distance shoes. Using high-tech tools like motion capture cameras and force-measuring treadmills, the team recorded joint angles, ground reaction forces, angular velocities, and more—while also measuring oxygen consumption.

Key Biomechanical Takeaways

After analyzing the data with regression models, the study revealed that five specific biomechanical variables explained a whopping 73% of the variability in RE:

- 1. Hip Positive Power: More energy spent at the hip correlated with worse RE.
- 2. Knee Extension Angular Velocity: The faster the knee extended, the more energy it cost.
- 3. Ankle Plantarflexion Angular Velocity: High angular velocity here also worsened RE.
- 4. Ankle Negative Power: More energy absorbed at the ankle (eccentric load) improved RE.
- 5. Metatarsophalangeal (MTP) Extension Angular Velocity: Fast MTP extension increased energy use (and decreases RE)

In short, high power output and faster joint movements—especially at the hip, knee, and ankle—tend to increase energy cost. A smoother, more controlled push-off phase appears to be more economical.

Does the shoes matter? Yes, but maybe not the way you think.

Although runners wore AFT shoes, the study didn't directly test these shoes against traditional models. So, while the findings can't be solely attributed to the footwear, they underscore how shoe design might influence the biomechanics that matter most. Features like carbon plates and strategic cushioning could help fine-tune joint mechanics for better RE.

What This Means for You

- ☐ **Train Smarter**: Focus on drills and strength work that enhance control over your hip, knee, and ankle movements—especially during push-off.
- Choose Wisely: When selecting running shoes, prioritize models that align with your natural gait and promote smoother, more efficient mechanics—not just the flashiest carbon plate.
- Run Economically: Aim for steady, fluid strides over explosive movements to reduce energy cost during longer efforts.

Optimizing running economy isn't just for elites. If you're looking to run longer, faster, or just more comfortably, paying attention to how you move—and what's on your feet—could be the edge you're looking for.

From a practical standpoint, this research continues to underscore that **how** you run is just as important as **how much** you run. Improving biomechanics could help you run faster, longer, and with less risk of injury, which is especially valuable for master's runners or those coming back from injury. Working with a coach or using motion analysis tools can help you identify inefficiencies in your stride. Even small changes could make a significant difference over time.

For more information, take a look at the research in the original article: Fukuchi CA, Stefanyshyn DJ, Wannop JW. Biomechanical determinants of running economy. J Sports Sci. 2025 Apr;43(8):796-802. doi: 10.1080/02640414.2025.2477397. Epub 2025 Mar 11. PMID: 40066739.

News*Run 4

Flat Out Struggling? How to Keep Running **Strong with Flat Feet**

By - Justin Ham, DO Sports Medicine Fellow, Maine Health

re your feet feeling a little flat - literally? If so, you're not alone. Your feet have three arches, **L** medial longitudinal, lateral longitudinal, and transverse, but the medial longitudinal arch, located along the inner side of your foot (the big toe side), is the most prominent. When this arch lacks curvature or is entirely absent, it's known as pes planus. A condition commonly referred to as flat feet.



Flat feet aren't rare. In fact, it's estimated that 20-37% of children have them, according to data from the National Library of Medicine. Interestingly, arches don't fully develop until around the second or third year of life, so flat feet are completely normal in infants. Many children grow out of it, with the prevalence dropping to 10-13% in adulthood, according to the same source.

Quirk?

For most adults with flat feet, the body adapts naturally, and they can stay active - yes, even run marathons without major issues. However, some runners with flatter arches may experience foot fatigue, discomfort, or even chronic pain. If that sounds familiar, a few adjustments can make a world of difference in keeping you on the road (or trail) pain-free.

1. Find the Right Fit

If you have flat feet, your foot tends to be wider, which means squeezing into standard running shoes could cause discomfort or even blisters, especially on the lateral (outer) part of your foot. To prevent friction and pain, look for wider shoes designed for stability. Many running retailers can analyze your foot shape while standing and help you find the best fit.

2. Support Where It Counts

Sometimes, a little extra support can go a long way. Using insoles to elevate your medial arch can help redistribute pressure and correct over-pronation (rolling inward of the foot). This also reduces strain on the posterior tibialis tendon, which runs along the inside of your ankle and plays a key role in foot stability. Insoles range from affordable over-the-counter options (\$20-\$50) to custommade orthotics that can run several hundred dollars, depending on insurance coverage. If you're dealing with persistent pain, it may be worth the investment.

3. Rule Out Underlying Issues

Flat feet aren't always just about genetics. If you've noticed a recent change in your arch height, especially after an injury, it's a good idea to check in with a doctor. A sudden or gradual collapse of the arch could signal a structural issue that needs medical attention. It can also be related to complications from chronic medical conditions, such as diabetes, chronic infection, or alcohol overuse.

Keep Running Strong

Having flat feet doesn't mean you have to give up running, or even slow down. With the right shoes, proper Running with Flat Feet: A Challenge or Just Another support, and awareness of any underlying conditions, you can keep logging miles comfortably. After all, plenty of elite runners have flat feet and still crush their goals. Why shouldn't you?





Maine Track Club Member Benefits

Coaching & Training Opportunities • Group Runs Fun Social Events · Volunteering Opportunities Website & Newsletter with Run Calendars & Tips from Experts Annual Membership Banquet & Awards · Active Wear

Participation in Race Bib Lotteries for TD Beach to Beacon 10K, Boston Marathon, and Mt. Washington Road Race



Maine Track Club Races

Peaks Island 5 Miler July 26, 2025

Maine Marathon. **Half Marathon & Relay** October 5, 2025

Farm to Farm **Ultra Run & Relay** September 28, 2025

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Maine Track Club Turkey Trot November 23, 2025

Mid-Winter 10-Mile Classic February 1, 2026

Longfellow Frostbite 2.5K TBD February 2026

Maine Track Club Supported Races

Portland Sea Dogs Mother's Day 5K May 11, 2025

Pat's Pizza Clam Festival Classic 5 Miler July 19, 2025

To check for updated MTC race dates and times, as well as register for races, visit www.mainetrackclub.com.



For more info email mainetrackclub@gmail.com or visit

MaineTrackClub.com



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