



This newsletter is brought to you by mountain pizza, laps in a 50-meter pool, and shin-deep mud. If you enjoy it, I'd be grateful if you could share with one or two others!

## Beast Coast!

Yup, there's a capital B and capital C in Beast Coast. I certainly learned a bit about east coast trail technicality last weekend, but it was hammered home this weekend during a visit to Mount Sunapee to watch the US Mountain Running Champs. One photo here is of two top women, Anna Gibson and Lauren Gregory, duking it out, just after they crested a climb on a runnable part of the course. The rest of the race was pretty gnarly (one could even say beastly) with not just rocks, roots, and ledges, but also mud baths, moss, and biting branches. Gotta love how trail runners refer to the east coast as the "Beast Coast," probably because it's the "be(a)st" coast and creates trail "beast(s)".



## Coaching snapshot: bone mineral density!

*I wanted to share and expand on the most recent [Huzzah Hub post](#), which I was so fortunate to collaborate on, about bone mineral density in cyclists (male and female).*

Bone mineral density is usually measured with a dual-energy X-ray absorptiometry scan (DXA, or "DEXA"). The majority of bone gains (~90%) happen before we're 20, but we can strengthen bones throughout life with the right stimuli. Low bone density and osteoporosis (more severely low bone density) increase risk of fractures.

For Huzzah, Coach Dr. Dr. Megan Roche and I reviewed a [2023 study](#) on bone density, energy availability, and bone-loading physical activity in elite cyclists. This was a cross-sectional study, which means the data were taken at one point in time (athletes were NOT followed along their lifespan). Overall, the spine was the site of lowest bone density in professional female cyclists: 45% had low bone density there, and, out of the 45%, 20% had osteoporosis. Remarkably, 50% of the sampled professional male cyclists were found to have osteoporosis of the spine. Cyclists who participated in more bone-loading activities when they were younger (such as soccer, gymnastics, and basketball) tended to have better bone mineral density at the time of the study. Other factors associated with bone density included BMI (low BMI can indicate low energy availability and higher risk for low bone density), IGF-1 and T3 (blood markers associated with low energy availability), and CTX-1 and Vitamin D (markers for bone metabolism).

Other research also shows that [genetics](#), inflammation, and nutritional intake (even in the [short term](#)) also explain variability in bone density scores between athletes. Cycling is great for strength and endurance, but it doesn't stimulate bones adequately: strength training and impact exercise (along with a sturdy dose of fueling) are key! Check out the full post [here](#).

Reply to this newsletter or [email me](#) with questions, and I'll answer one in a few weeks!

**Let your friends know that I'm taking more athletes! Send them to my [website](#) to submit an inquiry or just pass along my email. Thank you so much!**

## Yogurt almond cupcakes!

These cupcakes came out shockingly white and also really delicious with a hint of almond extract. You could definitely omit that if it's not really your thing though.

Ingredients: ½ stick softened butter, 15g oil, 150g granulated sugar, ½ tsp almond extract, 1 egg, 110g whole milk greek yogurt, 140g milk, 220g all purpose flour, 1 tsp baking powder, ¼ tsp baking soda.

Preheat oven to 350°F. Prepare cupcake tin. Beat together butter, oil, sugar, and almond extract. Beat in egg. Mix in yogurt. Alternate mixing in milk, flour, and the leaveners. Spoon into pan and bake for 20-25 minutes until springy. Let cool, then ice!



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## Hi from Ramona!

She's a little judgmental of both the book and the whole putting-the-legs-up-against-the-bed concept.

