



This newsletter is brought to you by cat-sitting, Boston Marathon bopping, and rough water. If you enjoy it, I'd be grateful if you could share with one or two others!

## Stories!



Way back, when I really didn't want to do something, someone asked me what the worst thing that could happen if I did it was... in the end I realized that, at worst, I'd get a story out of it.

30,000+ runners raced the Boston Marathon this past weekend. That's 30,000 stories. I was lucky enough to help coach one athlete who raced, and I learned from/along on Strava a handful of other athletes. It would be so cool to hear all those 30,000 backgrounds, "why"s, and training and racing experiences. Plus the stories of all the spectators and why going to watch and cheer was important to them.

Unrelated to Boston, [here's a story](#) I stumbled upon this week about a robber-turned-record-setting-rower and Ironman. John McAvoy now runs the [Alpine Run Project](#), which introduces inner city youth in the UK to trail running in the Alps.

## Coaching snapshot: altitude!

*I just spent a few days at altitude [in Boulder], and I went for a run there and got totally wiped. How do I even start to prepare for a race at altitude when I live at sea level year-round?*

At "moderate elevation", around 6500 ft, there's about [20% less oxygen](#) per breath than at sea level. The drop in oxygen pressure in the lungs results in less oxygen getting into our blood stream. This low blood oxygen level, or "hypoxia", causes a few downstream effects:

- (Immediate) Our heart beats faster and we breathe faster to try to get more oxygen.
- The faster breathing expels carbon dioxide, and due to the buffering of bicarbonate in our blood (see [this newsletter](#) for more about bicarb!), we also start peeing out more water to try to compensate.
- Due to more breathing and more peeing, we get dehydrated, especially in the first few days of being at altitude while our body adjusts.
- All this causes high stress on the body!
- (After about a week) Our kidneys sense the low oxygen and stimulate red blood cell production.

Hypoxia alone will cause excess stress and discomfort when exercising at altitude compared to sea level. But you can't change the air pressure! Instead, make sure to [support the downstream effects of altitude](#):

- Check your iron status before going to altitude since [low iron can limit](#) red blood cell production.
- Make sure you're staying hydrated.
- Don't be alarmed by an increased resting heart rate or breathing rate; these are normal!
- Take rest -- the body is under increased stress as it is, no need to overtrain it. As always, make sure to fuel enough.



Finally, [consider heat training](#) before or after to prepare for or sustain adaptations to altitude, though there isn't much research in this area yet.

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!**

## Springy yellow cake!



This yellow cake recipe is delicious! It was the base for the icing I published [two weeks ago](#). I've also made the cake replacing 100g of all purpose flour with whole wheat flour. So good!

Ingredients: 1 stick softened butter, 1 tbsp oil, 250g granulated sugar, 3 whole eggs, 2 egg yolks, 1 cup (240g) buttermilk (or milk-acid combo), 1 tsp vanilla, 305g all purpose flour, 2 tsp baking powder, dash salt.

Preheat oven to 350°F and prepare pans. Beat butter, oil, and sugar. Add eggs and egg yolks and beat again to light yellow ribbons. Add buttermilk, vanilla, and salt, and stir to combine. Finally, add flour and baking powder. Stir until just combined. Pour into pans and bake for about 30 minutes.

## Help me grow!

As a small business, I rely on word of mouth to grow. Please share my [website](#) (ssendurance.com), [Instagram](#) (@coach\_serena326), or [newsletters](#) with anyone and/or over social media! Reach out with any questions or comments by responding to this email. Thank you all!

## Hi from Ramona!

These are photos of Ramona and her fluffy neighbor Linus, who look so docile but got into a hissy fit the first time they met.

