



This newsletter is brought to you by napping to get my cold to go away and restarting stadiums. If you enjoy it, I'd be grateful if you could share with one or two others!

Jasmin's Barkley video!

I recommend watching [this documentary](#) about Jasmin Paris as the first woman to complete the Barkley Marathons. I love how down-to-earth and gritty she is, and the film is really well made! Also a trial of endurance under sleep deprivation... talk about sleeping...

Coaching snapshot: sleep for adaptation!

I heard that sleep reduces inflammation. How, and how does that fit into training?

Sleep is good. Sleep isn't just a period of rest but an active process that enhances physical and mental performance.

Instead of listing all the things that could go wrong with too little sleep, I want to bring attention to things that could be better with a little more sleep. While many studies examine the effects of sleep deprivation on athletic performance with a fair number of negative findings, some evaluate the effects of improved sleep on athletic performance. An oft-cited [2011 study](#) on collegiate basketball players found that extending nightly sleep time from 6.6 to 8.5 hours per night over ~6 weeks significantly improved sprint speed, free throw accuracy, reaction time, and three-point field goal percentage. A [2019 study](#) on cyclists and triathletes found that extending time in bed from 7-8 to 10 hours per night improved performance on a ~1 hour long time-to-exhaustion endurance cycling test.

Physical. During deep sleep, we release growth hormone, which stimulates protein synthesis and glycogen resynthesis. We're building/repairing muscles and enhancing our muscle carbohydrate stores while we sleep! Chronic sleep deprivation has been associated with [elevated cortisol](#) and [inflammatory proteins](#) (signs of inflammation) and [decreased testosterone](#). Conversely, improving sleep can help regulate the inflammatory response to exercise and promote adaptation, which is what training is all about. In terms of athletic performance, it's generally been found that sleep extension enhances or maintains endurance. The evidence is inconclusive about whether or not maximal strength is affected by sleep.



Mental. Sleep extension has been shown to improve reaction time. Sleep deprivation has been associated with [increased perceived exertion](#). Finally, sleep plays a vital role in motor learning and focus, which are essential for skill development in athletes.

Not everyone has the opportunity to optimize their sleep fully, and that isn't the point. However, I'd encourage you to think about your sleep routine and see if you can squeeze in a few extra minutes at night or with a nap, or shuffle the order of your nighttime routine to reduce screen time close to bed time. You might just see some benefits reflected back in your athletic performance!

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!

Mud brownies!

These have beans, like the [cashew blondies](#) did, but in this case they are basically undetectable (for the blondies, you have to like beans). Hands-down my favorite brownie recipe though. I'd choose these over a "normal" batch.

Ingredients: 300g cooked beans (black or pinto), 350g sugar, 3 tbsp butter, 6 oz unsweetened chocolate, 3 eggs, 1 tsp salt, 1 tsp vanilla extract, optional espresso powder and/or chocolate chips.

Butter a 8x8" brownie pan. Process beans and sugar together. Melt butter and chocolate in microwave. Mix together bean and chocolate mixtures. Add eggs. Add vanilla, salt, and any add-ins. Bake at 350°F for 30-35 minutes until top slightly cracks. A knife will not come out clean. Cool in the fridge overnight before eating, both for slicing and for taste purposes!

[Recipe](#)



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