Week 8:

The Wisconsin AD Exercise Newsletter

Pro Tip

Looking for a boost of motivation?

Try a different kind of exercise log!

A few times per week, after a workout, instead of writing down how many miles you covered, or your new weight lifting record,
jot down a few words about *how you felt after working out*.

When you don't feel like exercising, refer to your log, and experience some self-motivation!

Coach's Playbook

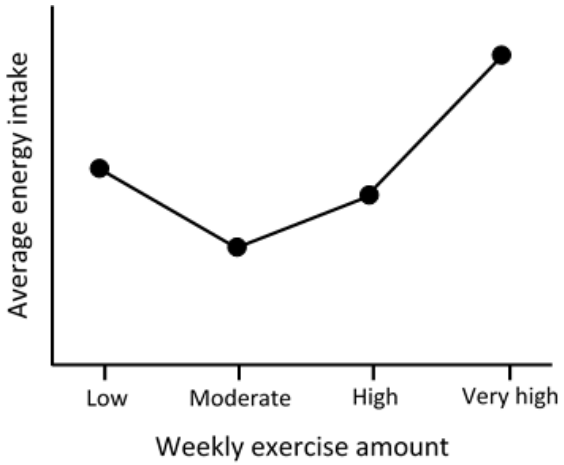
Exercise and Appetite Control – Beaulieu et al. 2016

Exercise is one of the keys to physical and mental well-being. But exercise doesn't act alone. It's related to other areas of well-being, particularly when it comes to appetite. Our diets—the types and amounts of foods we eat—are central to our health and interact with our exercise habits.

Appetite regulation is tied to factors as wide-ranging as emotions and gut hormones. Calorie burning associated with exercise has traditionally been thought to stimulate eating. In fact, the story is more nuanced. Rather than just stimulating energy intake, it seems that exercise stimulates hormones to help properly regulate energy intake.

The J-Shaped Curve
Among people doing low, medium, high, and very high amounts of exercise per week, calorie intake is highest among very high exercisers (>14 hours per week). This is expected; they're burning the most energy throughout the week. But the second-highest calorie intake isn't among high exercisers. It's among low exercisers.

In other words, low exercisers (<2.5 hours per week) consume more calories than moderate and high exercisers (~2.5 – 14 hours per week), despite expending less energy from exercise. That highlights an appetite imbalance among low exercisers, while moderate to very high exercisers seem to have an appetite that is ‘coupled’ to their energy expenditure.



What is the reason for that imbalance among low exercisers? There could be many reasons, but one culprit may be leptin resistance. Leptin is a hormone that signals that you’re full after eating. A sedentary lifestyle, combined with being overweight, can cause the body to not recognize leptin’s signal.

The mismatch between exercise level and energy intake holds true in multiple study settings, too. Among consistent exercisers, energy intake at a buffet was lower when the study volunteers had eaten a high-calorie “pre-load meal” shortly beforehand versus when they had eaten a low-calorie "pre-load meal." On the other hand, non-exercisers ate significantly more after the high-calorie pre-load meal. In other words, the consistent exercisers’ appetite regulation worked appropriately by adjusting to the calorie content of the pre-load meal, while non-exercisers' bodies didn’t sense the high-calorie pre-load meal as accurately.

Along the same lines, exercise training may help appetite regulation. After several months of training, research volunteers reduced their meal size at a high energy-density meal, but not at a low energy-density meal. This suggests

they increased their sensitivity to the energy-density of foods after exercise training.

The bottom line

In this world full of readily available, energy-dense food, exercise could help the body to avoid overconsumption.

Ask the Exercise Physiologist

Do you have a question for our Exercise Physiologists?

Send your question(s) to Camille Conway.

You may be featured in an upcoming newsletter!

Tune in next week for a breakdown of exercising for blood sugar control.

Going the Extra Mile...

Check out this additional resource to help you on your exercise journey.

Hunt et al. 2020, Association of Neighborhood-Level Disadvantage with Cerebral and Hippocampal Volume