
THE WHOLE
ENCHILADA:

FUELING FOR
THE TRAILS

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DISCLOSURES

- I have no private or professional conflicts to disclose.
- If anyone from Untapped sees this and wants to offer a sponsorship, feel free to reach out.

GOALS FOR THE TALK

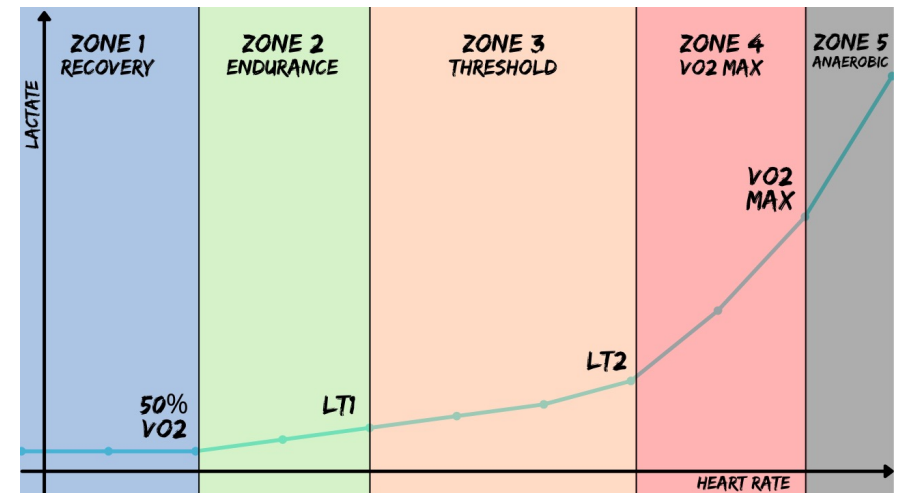
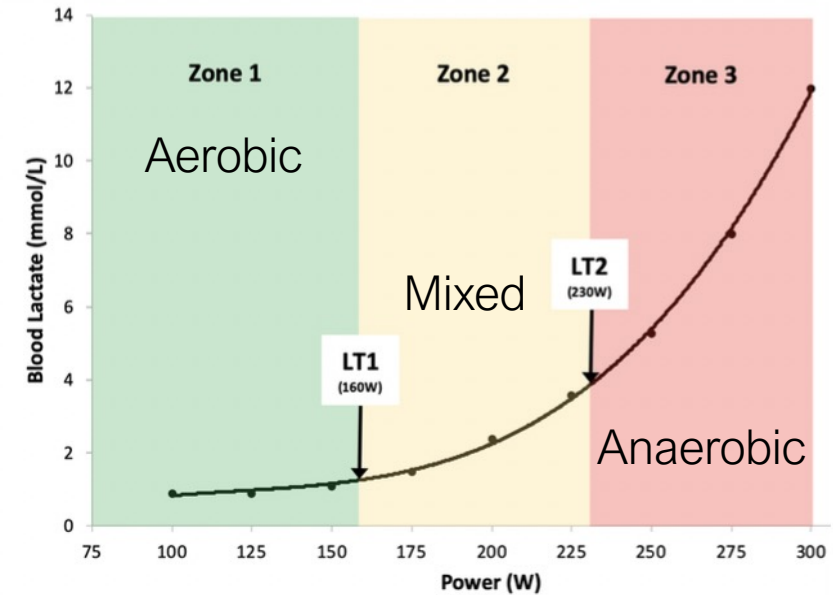
- Review some basics of food metabolism
- Discuss differing considerations for different riding situations (single day ride, multi-day trip, racing)
- Touch on hydration during riding

BASICS OF FOOD METABOLISM DURING EXERCISE

- What we eat:
 - Carbohydrates (assembled groups of glucose, fructose and galactose)
 - Fats (assembled fatty acids)
 - Protein
- What we burn: Muscles use specifically glucose and fatty acids. Brain uses almost exclusively glucose.
- *Important note:* When we're active, the rate of absorption for the different macronutrients can change compared to rest
 - Think gut rot from lots of gels (high sugar) or trying to work out after eating a burger (high fat and protein)
 - In a race or bikepacking situation, this can spell trouble if you haven't tested a fueling plan out on the trail

ENERGY SYSTEMS

- The type of fuel being burned depends on intensity and duration of exercise
- Aerobic
 - Burns a combination of fatty acids and glucose at high energy return per molecule
 - Think the pace at which you can carry on a conversation
- Anaerobic
 - Glucose use only, no fat metabolism
 - Fast energy creation BUT low energy return per molecule
 - Think pace at which it's hard to talk while climbing
 - *Will burn through glucose stores much faster*



BONKING

- "Bonking" is the result of low blood sugar during exercise
 - The brain uses glucose as main fuel source
 - If blood sugar level drops too low cognitive function and neuromuscular control tank
- Symptoms
 - Fatigue
 - Increased sweating / feeling chilled
 - Tremors
 - Can lead to confusion and passing out if not corrected
- Cause is underfueling during a ride in the setting of:
 - Overuse of anaerobic system (burning matches)
 - Long duration aerobic rides
- Treatment: Rest and eat; hospital if someone has collapsed
- Prevention: Appropriate nutrition and smart training

BONKING

- IMPORTANT SIDE NOTE:
 - On a hotter and/or muggy day, symptoms of low blood sugar and heat exhaustion can be similar
 - Don't just assume one versus the other
 - If you're feeling off, get out of the heat and eat & drink something

SINGLE DAY RIDES

DO:

- Eat at least 30g carbs/hour during rides >90 min
 - Most gels/syrups/stroopwafels = 20g carbs per package
 - Bars likely contain more (Clif bar ~ 45g of carbs)
- Drink water along with gels/syrups
- Bring extra snacks (all else fails, you can share)
- Stash even more food and water at the trailhead

DON'T

- Leave home without cash (or at least a credit card)
- Ignore symptoms of bonking
- Ignore symptoms of a buddy bonking

MULTI-DAY WEEKENDS/TRIPS

DO:

- Plan time for 3 balanced meals
- Snack throughout the day
- Try to maintain steady, aerobic tempo on climbs
- Carry water and extra gels
- Think about setting an alarm to remind you to eat

DON'T

- Skip breakfast
 - Fasted riding isn't helpful outside of specific training plans
- Have a burger for lunch if you're headed back out
 - Fatty or high fiber foods are likely to sit poorly during exercise
- *Ignore symptoms of bonking*

RACES (XC, ENDURO, ULTRADISTANCE)

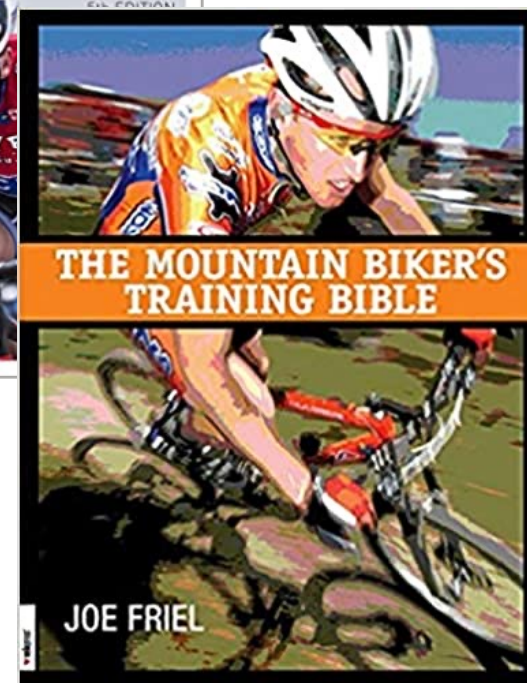
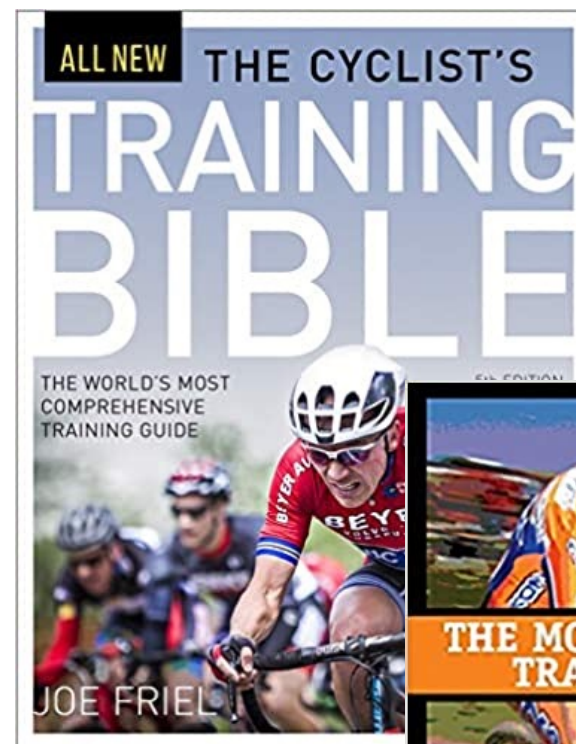
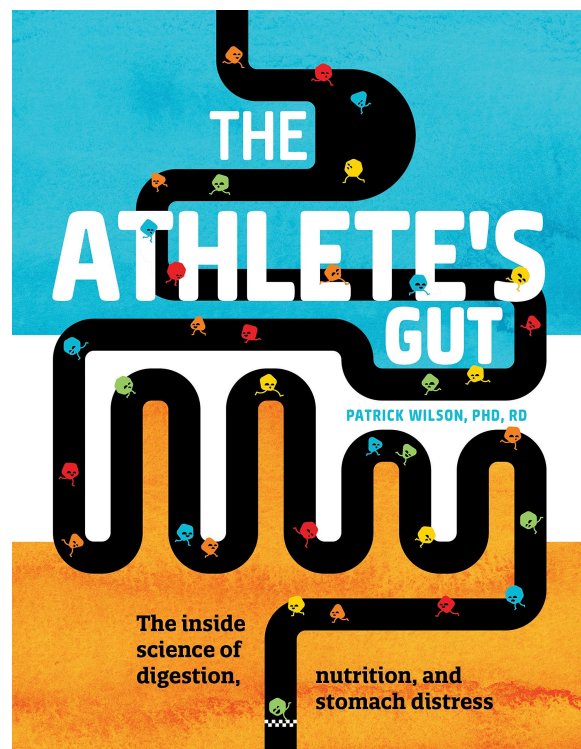
DO:

- Have a modest breakfast > 2hrs before race start
- Shoot for 60g of carbs/hr if race is >1hr
- Drink to thirst during race
 - Possible exceptions: races at altitude, hot/muggy days
- Feel free to have an espresso before the race
- For longer races, pack a few different flavors of gels/etc *that you've tried and tolerate*
- Eat well and stay hydrated during the 3-5 days leading up to the event

DON'T

- Get nervous and make last minute changes to fueling plan
- Use food/drinks/gels that you haven't tried before (when possible)

LEARNING MORE:





THANKS
EVERYONE!

ANY
QUESTIONS?