

HELPFUL OR HARMFUL?

REDEFINING 'HEALTHY EATING' FOR ATHLETIC PERFORMANCE



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LET'S REDEFINE "HEALTHY"

Health /helTH/ noun

"The state of being free from illness or injury."

"A person's mental or physical condition."

Healthy eating

"Eating a variety of foods that give you the nutrients you need to maintain your health, feel good, and have energy."

"Helps protect against malnutrition in all its forms ..."

Healthy food

"Food that gives you all the nutrients you need to stay healthy, feel well and have plenty of energy. The best way to ensure you're eating healthy is to eat a wide variety of different kinds of foods."

WHAT ARE THE BARRIERS YOU FACE THAT PREVENT ADEQUATE DAILY NUTRITION?

- I get up too late and/or I don't make **time** for breakfast.
- I **compare** my body and/or food with the people I eat lunch with.
- I am **not hungry** in the morning.
- I just drink coffee or an energy drink if I'm tired.
- My **parents** "close" the kitchen after dinner; my parents don't let me eat "junk" food or snack between meals.
- My parent is on a diet so we all eat that way.
- I don't pack my lunch or snacks ahead of time for school.
- I feel awkward eating in class. I feel **embarrassed** eating in front of my friends.
- The **school** does not let you eat between classes/in the hallways.
- I am nervous about eating before practice because I don't want to have a **stomach ache**.
- The school's lunch options are gross, so I usually skip lunch.
- I don't eat between lunch and practice.
- I **don't know** what to eat that's good for me so I just skip it.
- I don't know how to cook/cooking intimidates me
- Social media** makes me feel guilty.
- Financial hardship or limited **food access**

SO HOW DO I KNOW ...

WHAT TO **EAT**?
WHAT IS *HEALTHY*?
WHAT TO BELIEVE?



THE MOST COMMON NUTRITION MISTAKES I SEE FROM ATHLETES

- ✓ Avoiding the normal & necessary weight gain associated with puberty
- ✓ Eating excessive fiber for veggies and/or fruit
- ✓ Carbohydrate restriction or avoidance
- ✓ Avoidance of sugar or processed foods 'for performance'
- ✓ Not eating before bed
- ✓ Fasted morning training
- ✓ Not eating before and/or after exercise
- ✓ 3 meals but not snacks
- ✓ No breakfast or minimal breakfast
- ✓ Reliance on coffee or energy drinks
- ✓ Training more than their coach prescribes
- ✓ Sticking to a rigid set of foods
- ✓ "Eating clean"





MYTH
PUBERTY IS A DEATH SENTENCE
FOR FEMALE ATHLETES

ATHLETES WILL AND SHOULD GAIN WEIGHT FROM FRESHMAN TO SENIOR YEAR, AND HIGH SCHOOL TO COLLEGE. THIS DOES NOT AUTOMATICALLY MEAN YOU WILL GET SLOWER.

PUBERTY OPTIMIZES HEALTH & PERFORMANCE ... EVERY OLYMPIAN HAS GONE THROUGH PUBERTY.

*“ She lost her period
for three years*

and broke five bones ”

MYTH
**IT IS NORMAL FOR FEMALE-BODIED
ATHLETES TO LOSE THEIR PERIOD
DURING HARD TRAINING**

WHILE THIS IS COMMON IT IS NOT NORMAL, REGARDLESS OF LEVEL OF TRAINING. EVEN THE TOP ATHLETES IN THE WORLD ARE HAVING NORMAL PERIODS.

YOUR INJURY RISK IS 9-14X HIGHER WITH 3 MISSED PERIODS. PLUS, PERIODS HELP YOU BUILD BONE & MUSCLE.

IT STARTS WITH TRACKING

Apps

FitrWoman

Hello Clue

Many others, including your watch

Phone or Paper Calendar

What to track??

Your period

Heaviness and duration

Phase & symptoms (optional)

Birth control does not give you a true period and taking it can mask underlying problems





MYTH **“LOOKING FIT” & LEANER IS BETTER**

- 1. FITNESS DOES NOT HAVE A LOOK. FITNESS IS *INSIDE* OF YOU, NOT *OUTSIDE* OF YOU.**
- 2. BODY COMPOSITION IS ONLY 1 OF 40 FACTORS THAT INFLUENCE PERFORMANCE & LOWER IS NOT ALWAYS BETTER NOR IS IT SUSTAINABLE**
- 3. FORCING YOUR BODY OUT OF IT'S NATURAL SHAPE & SIZE WILL HURT YOUR PERFORMANCE & HEALTH**
- 4. YOU AREN'T SUPPOSED TO LOOK LIKE COLLEGE ATHLETES OR THE PRO'S**

FACTORS THAT INFLUENCE ATHLETIC PERFORMANCE

| | | | | | | |
|--------------------------------|--------------------------------|---------------------------|-------------------------------|----------------------------|----------------------------------|---------------------------------|
| GENETICS ⁴ | TRAINING ¹⁹ | PRACTICE ⁸ | COACHING ²⁴ | PHYSICAL HEALTH | BALANCE ¹² | BODY COMPOSITION ¹ |
| COORDINATION ²⁶ | COURAGE ¹⁰ | ENDURANCE ¹¹ | NUTRITION ²⁵ | QUICKNESS ¹⁶ | REACTION TIME ²⁰ | REST ¹⁴ |
| SLEEP ²³ | SPEED ¹⁵ | STRENGTH ²⁷ | VO2MAX ¹⁷ | WEIGHT ¹⁸ | MENTAL HEALTH ²¹ | MENTAL PREPARATION ² |
| MENTAL TOUGHNESS ¹³ | ANTICIPATION ²⁰ | COACHABILITY ³ | COMPETITIVENESS ²² | COMMITMENT ²² | CONCENTRATION ⁶ | CONFIDENCE ²⁹ |
| DESIRE ³ | "HEART" ²² | INTELLIGENCE ³ | MOTIVATION ³ | PERFECTIONISM ⁹ | "PLAYING WITH PAIN" ³ | POISE ¹³ |
| | TEAMMATE DYNAMIC ²⁸ | RESPECT ³ | SACRIFICE ⁵ | TEAMWORK ²⁸ | HARD WORK ³ | |



MYTH
HEALTHY EATING MEANS
ONLY EATING IF I'M HUNGRY

HEALTHY EATING FOR ATHLETES ACTUALLY INVOLVES THE *PERMISSION* TO EAT WHEN YOU AREN'T HUNGRY & THE *UNDERSTANDING THAT IT IS NECESSARY* AT TIMES AS WELL — FOR EXAMPLE, IN THE MORNING BEFORE SCHOOL, AND BEFORE OR AFTER EXERCISE.

LACK OF HUNGER DOESN'T MEAN THAT YOUR BODY DOESN'T NEED OR KNOW HOW TO USE NUTRIENTS



MYTH **FACT**
CARBS CAUSE WEIGHT GAIN

FACT: WHEN WE EAT CARBOHYDRATES, OUR BODY ALSO STORES WATER MOLECULES! HOW COOL! CARBS HELPS HYDRATE US & DECREASING CARB INTAKE SIMPLY RESULTS IN WATER LOSS, NOT WEIGHT LOSS. CARBS ARE ALSO STORED IN OUR MUSCLES AS GLYCOGEN, WHICH IS THE ENERGY OUR MUSCLES USE DURING EXERCISE.

MYTH: CARBS DO NOT CAUSE US TO GAIN BODY FAT. NO SPECIFIC FOOD OR FOOD GROUP CAUSES WEIGHT GAIN OR WEIGHT LOSS.



MYTH

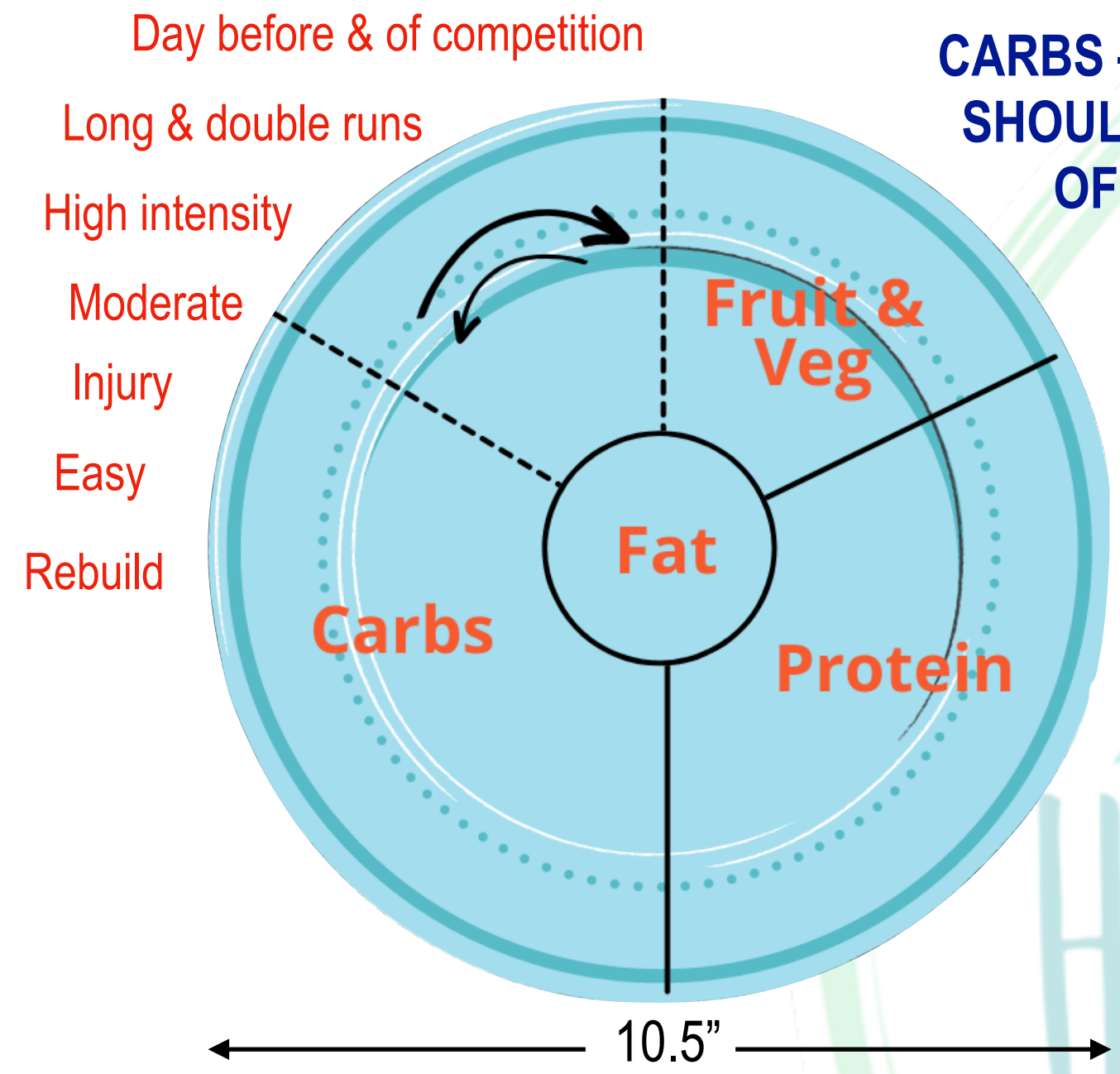
EAT LESS ON REST DAYS OR DURING INJURY TO PREVENT WEIGHT GAIN

INJURIES CAN INCREASE OUR BODY'S ENERGY NEEDS BY 5-50%, AND INADEQUATE NUTRITION INTAKE DURING INJURY CAN DELAY HEALING

WHEN YOU "REST" YOUR BODY IS ACTUALLY REBUILDING ITSELF AFTER A HARD WEEK OF EXERCISE! THIS PROCESS TAKES ENERGY, AND NOT EATING ENOUGH ON THOSE "REBUILDING" DAYS CAN RESULT IN POOR RECOVERY AND PERFORMANCE THE NEXT WEEK. THIS CAN ALSO ADD UP OVER A SEASON AND CAUSE BURNOUT AND ANEMIA.

Performance Plate

“FOOD IS YOUR GREATEST ERGOGENIC AID”



Carbohydrates

- Chips
- Potatoes & sweet potatoes
- Bread, bagels, pita, naan
- Waffles, pancakes, crepes
- Tortillas & wraps
- Packaged snacks: pop-tarts, Oreos
- Crackers, goldfish, pretzels
- Gram crackers & animal crackers
- Granola bars
- Oatmeal & cream of wheat
- Breakfast cereal & granola
- Pastries, quick breads, muffins, donuts
- Rice, quinoa, couscous, millet, etc.
- Pasta & noodles
- Dessert: cookies, cakes, pies



Fats & Oils

- Avocado
- Cream cheese
- Oils
- Butter & ghee
- Mayonnaise
- Bacon & breakfast sausage
- Coconut flakes & butter
- Nuts & seeds
- Nut & seed butter
- Olives
- Pesto & Alfredo sauce
- Half & half
- Full fat salad dressing



Proteins

- Seafood (fresh, canned)
- Poultry (chicken, turkey)
- Beef
- Pork/ham
- Lamb & goat
- Nuts, seeds, nut butters
- Beans & legumes
- Hummus & bean dips
- Tofu, tempeh, edamame
- Dairy
- Eggs
- Meat substitutes

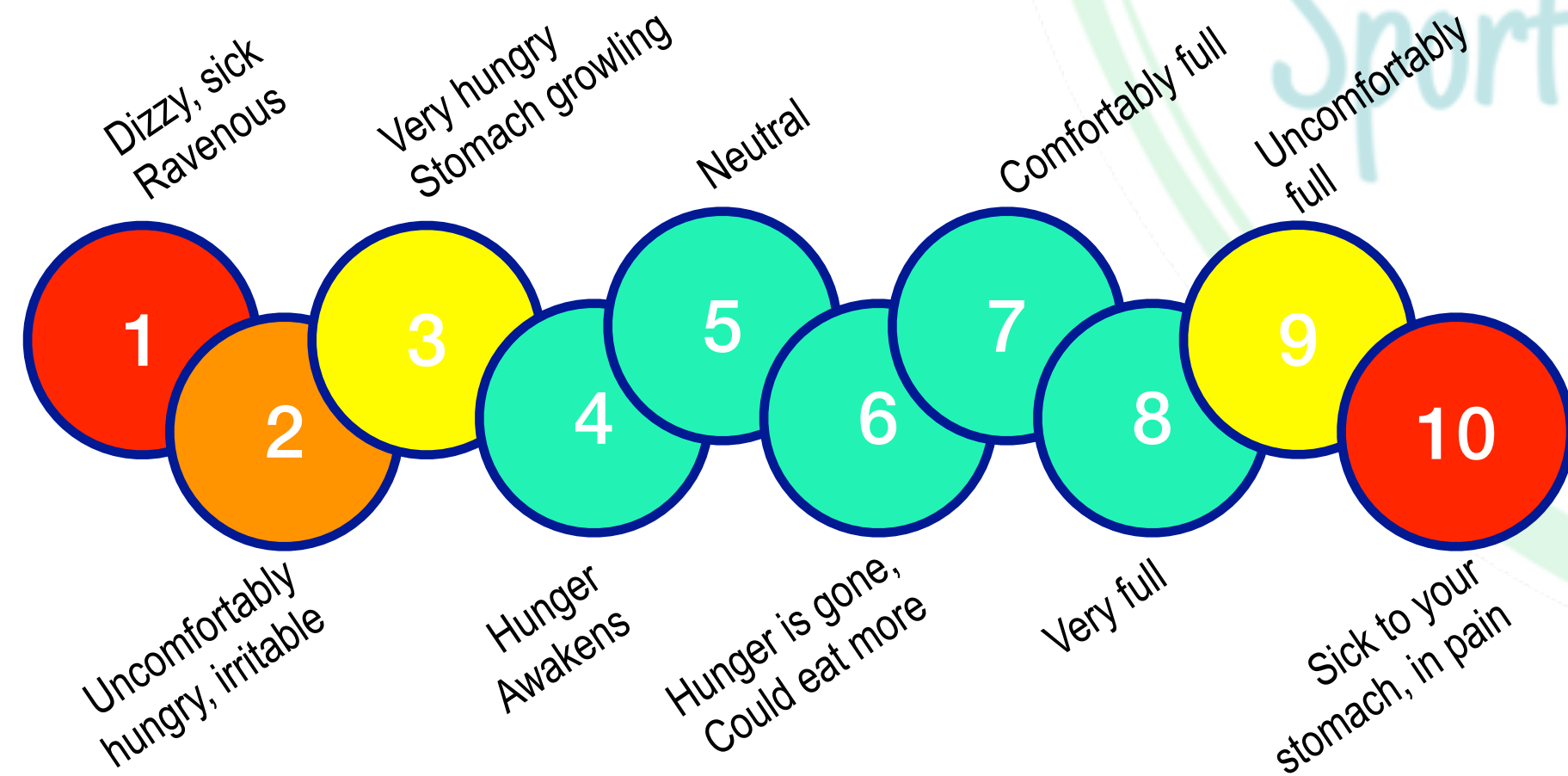


Fruits & Veggies

Fresh, cooked, canned, juiced, dried, pureed or frozen

- | | | |
|----------------------|------------------------|--------------------|
| Apples | Pineapple | Brussels sprouts |
| Grapes & cherries | Berries | Beets |
| Bananas | Mango & papaya | Cucumber |
| Citrus | Dates & figs | Tomatoes |
| Pears | Carrots | Peas & green beans |
| Peaches & nectarines | Greens & lettuces | Zucchini & squash |
| Apricots & plums | Peppers | Corn |
| Melons | Broccoli & cauliflower | |

HUNGER FULLNESS SCALE



- = Aim for this most of the time
 - = part of life but reduce time here
 - = should be rare
 - = danger zone!
- If these happen a lot, make notes of when/why



MYTH **SUGAR IS BAD FOR** **ATHLETIC PERFORMANCE**

SIMPLE CARBOHYDRATES, INCLUDING SUGAR — NOT 'HIGH FIBER WHOLE-FOOD CARBS' — ARE THE BODY'S PREFERRED ENERGY SOURCE FOR ATHLETES, ESPECIALLY HIGH INTENSITY SPORTS & COMPETITION. SUGAR IS NECESSARY FOR ATHLETIC PERFORMANCE!

MOST OF THE FOOD THAT WE EAT BREAKS DOWN TO SUGAR BECAUSE THAT IS WHAT OUR BODY RUNS ON!

A photograph of a dog, possibly a Weimaraner, lying on a bed. The dog is resting its head on a white pillow and is covered with a light blue blanket. The background is a plain, light-colored wall.

MYTH

**MY BODY DOESN'T DIGEST THE
FOOD THAT I EAT BEFORE BED**

WHILE YOU ARE SLEEPING, YOUR BODY IS STILL PERFORMING ALL OF ITS NORMAL FUNCTIONS!

EATING BEFORE BED: IMPROVES SLEEP QUALITY, REDUCES AWAKE TIME, AIDS IN MUSCLE & BRAIN GROWTH & RECOVERY, INCREASES TESTOSTERONE, AND SUPPORTS IMMUNE FUNCTION

A close-up photograph of a person's hand holding a blue bowl. The bowl contains oatmeal topped with sliced bananas and a drizzle of peanut butter. The person is wearing a light blue watch with a black strap. The background is a blurred outdoor setting.

MYTH **FASTING BEFORE & DELAYING** **EATING AFTER TRAINING BURNS** **MORE FAT**

BOTH HURT PERFORMANCE & RECOVERY, AND CAN ACTUALLY INCREASE BODY FAT — AS WELL AS STRESS — IN MANY CIRCUMSTANCES. JUST BECAUSE YOU CAN GET THROUGH A SESSION FASTED, IT DOES NOT MEAN THAT YOU SHOULD.

IF YOU'RE NOT USED TO EATING BEFORE EXERCISE, START SMALL (FRUIT SNACKS) & WORK UP TO A MORE ADEQUATE SNACK (TOAST WITH PB & BANANA)! TRY CHOOSING FOODS THAT ARE SMALLER IN VOLUME BUT HIGHER IN CARBOHYDRATES, LIKE A POP-TART INSTEAD OF A BAGEL. NOT HUNGRY AFTER EXERCISE? OPT FOR LIQUIDS LIKE GATORADE OR CHOCOLATE MILK TO HELP DECREASE NAUSEA & START TO REHYDRATE AND REPLENISH YOUR BODY.

FUELING BEFORE EXERCISE

WHY?

- ☑ To provide you with energy & improve performance & recovery
- ☑ To decrease stress hormones & increase growth hormones
- ☑ To reduce the risk of stomach issues & injury

WHAT?

- ☑ low in fiber
- ☑ easily digested
- ☑ rich in simple carbohydrates & salt

WHEN?

How long until exercise?

<30min* (between school & practice): All carb | 2x applesauce, 2x chewy bars, handful gummy candy, Pop-Tart, Nutrigrain bar

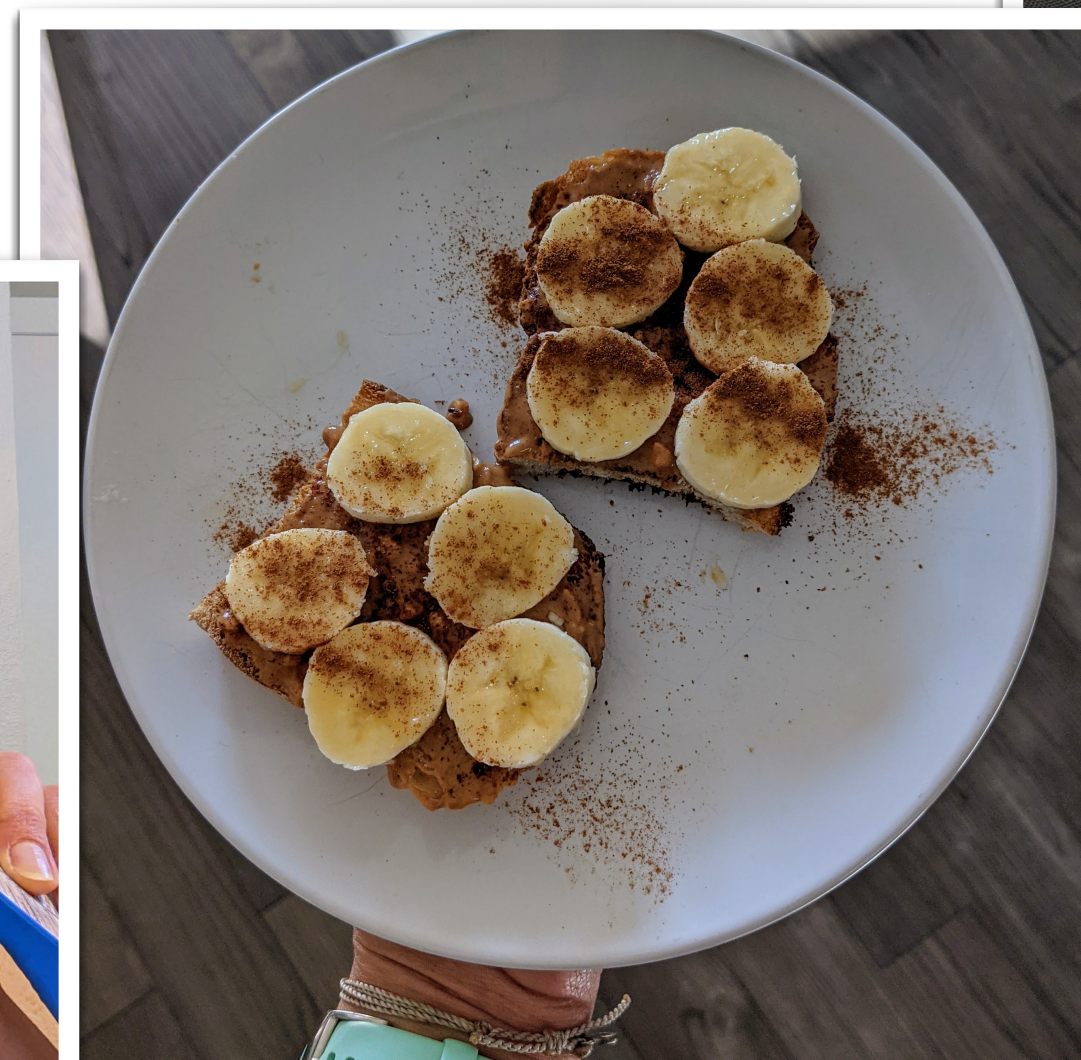
40-60min* (summer): Mostly carb, low protein/fat | Low fiber bar (Clif, Bobo's), toast/tortilla w/ nutella & banana, 2 Pop-tarts, 2 waffles w/ syrup

1.5-2hrs: Mostly carb, moderate pro/fat + fluids | PBJ, tortilla rollup, bagel w/ cream cheese, oatmeal w/ nuts & fruit, white rice & egg, ramen

3-4 hrs: normal meal, half your plate carbs, limit fiber & raw veggies | **MAKE SURE YOU TOP OFF YOUR FUEL TANK 15-60 MIN BEFORE :)**

*Rule of thumb: For eating <60minutes before exercise, aim for 1g carb per minute until exercise (e.g. 30 minutes until exercise = 30g carb)

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MEET DAY MINI MEALS

WHY?

Many athletes under-fuel on competition days causing low blood sugar, poor performance & recovery, & risk of injury & GI issues

WHAT?

- ✓ Small-to-medium in size
- ✓ Low in fiber & fat, moderate protein
- ✓ Easily digested
- ✓ Rich in carbohydrates, fluids & salt

WHEN?

- ✓ Every 1-3 hours
- ✓ 5-60 minutes before warmup
- ✓ **Between warmup and start time***
- ✓ 5-30 minutes after the event



Examples: PB pretzels, PBJ, meat sandwich, sports drinks, bananas, low-fiber granola bars, bagel w/ cream cheese, instant oats, noodles, trail mix, muffins, gram crackers, Pop-Tarts, Chex Mix, white rice, tortilla roll ups, fig bars, oatmeal cream pies, chocolate milk, fruit snacks, crackers

*Eating between your warmup and race (a couple swigs of Gatorade, a gel, a pack of fruit snacks) tells your nervous system to send extra stimulus to your muscles because of the sugar in your mouth and throat. This gives your more energy and power off the line & during your race.

REFUELING AFTER EXERCISE

1. ASAP

REHYDRATE WITH FLUIDS

- ✓ Fluids are portable & easier to digest if you're not hungry

2. WITHIN 30 MINUTES

REPLENISH WITH CARBS

- ✓ Simple carbs are best
- ✓ 3:1- 4:1 carb:protein ratio or 50-100g carbs

REPAIR WITH PROTEIN

- ✓ At least 15-25g protein

3. WITHIN 1-2 HOURS

REPEAT WITH A COMPLETE MEAL & CONTINUED REHYDRATION

- ✓ Shelf-stable chocolate milk + Clif bar → Subway, chips, cookie
- ✓ PBJ + sports drink → Burger, fries, milkshake
- ✓ Jerky + crackers + juice → Pizza, Caesar salad, soda
- ✓ Recovery drink + PB pretzels → Chipotle burrito + horchata or milk



1



2



3

PRE-FUELING & RE-FUELING

PRE-FUEL (<30 minutes before)

- ✓ Banana or handful of dried fruit, such as dates, raisins, or apricots
- ✓ Handful of pretzels or wheat thins
- ✓ Gram crackers or animal crackers or 1 Pop Tart or Rice Krispie treat
- ✓ Low-fiber bar (Nature Valley Original, Larabar, Zbars, Nutrigrain)
- ✓ 12 oz Gatorade

PRE-FUEL (60-90 minutes before) ... plus fluids!

- ✓ Drinkable flavored yogurt + banana
- ✓ Small PBJ or meat sandwich
- ✓ Trail mix: nuts, dry fruit, chocolate, pretzels or cereal
- ✓ Cheese quesadilla or small bean/cheese burrito
- ✓ Bagel with cream cheese, PB or avocado
- ✓ Bowl of low-fiber cereal with milk
- ✓ Handful of pretzels or PB pretzels + string cheese + juice
- ✓ Low-fiber bar (Clif, ProBar) & candy bars (Snickers or PayDay)
- ✓ Simple pasta or white rice with cheese, butter, and/or an egg

RE-FUEL

- ✓ Chocolate milk + banana or granola bar
- ✓ Yogurt & granola or cereal & milk
- ✓ Smoothie with fruit, dairy, oats, PB
- ✓ Overnight oats
- ✓ Muffin or pastry and a latte
- ✓ Power pancakes/waffles w/ syrup
- ✓ Pasta salad with protein
- ✓ Sandwich & chips
- ✓ Egg sandwich/burrito & juice
- ✓ Burger & a milkshake
- ✓ Daal over rice
- ✓ Teriyaki rice bowl with protein
- ✓ Burrito with rice & protein
- ✓ Pizza with caesar salad & soda





MYTH **DAIRY IS INFLAMMATORY**

DAIRY IS ONLY PROBLEMATIC FOR THOSE WITH LACTOSE INTOLERANCE OR A TRUE DAIRY PROTEIN ALLERGY. EVEN FOR LACTOSE INTOLERANT FOLKS, YOGURT, CULTURED COTTAGE CHEESE, GOAT MILK PRODUCTS, AND LACTOSE FREE MILK ARE ALL HEALTHY OPTIONS.

DAIRY HAS A WIDE ARRAY OF BENEFICIAL NUTRIENTS (CALCIUM, VITAMIN D, VITAMIN A, PROTEIN, CARBS), AND WHEY PROTEIN, THE MAIN PROTEIN FOUND IN MILK, IS ACTUALLY ANTI-INFLAMMATORY



MYTH
DON'T DRINK YOUR CALORIES

MOST ATHLETES ARE UNDERFED TO SOME EXTENT — DRINKING CALORIES CAN BE A MORE ACCESSIBLE WAY TO MAKE SURE YOU ARE NOT OPERATING IN A DEFICIT, WHICH CAN DAMAGE BOTH YOUR HEALTH AND PERFORMANCE.

DRINKS WITH CALORIES ARE ALSO BETTER FOR HYDRATION THAN WATER ALONE, AND ZERO-CALORIE/ZERO-SUGAR DRINKS OFTENTIMES HAVE SUGAR ALCOHOLS OR ARTIFICIAL SWEETENERS, WHICH CAN CAUSE DIARRHEA, BLOATING, GAS AND STOMACH PAIN

HYDRATION

HOW MUCH?

- ☑ 2-3L or 60-90oz or 8-11 cups (track with rubber bands!)
- ☑ Add ~16oz (2 cups) for every hour of exercise

WHAT?

- ☑ There are a lot to options besides water!
 - ☑ Soda, milk & juice are all GREAT hydration options!

WHEN?

- ☑ Start drinking water as soon as you wake up.
- ☑ Have a bottle with you during the day
- ☑ Drink fluids with meals.
- ☑ Have a bottle accessible in training and sip when possible.
- ☑ Rely on sports drinks with carbohydrates during practices
 - ☑ **PRIME, Body Armour & sugar-free drinks are not helpful**
- ☑ Replace electrolytes by salting your food & eating salty snacks

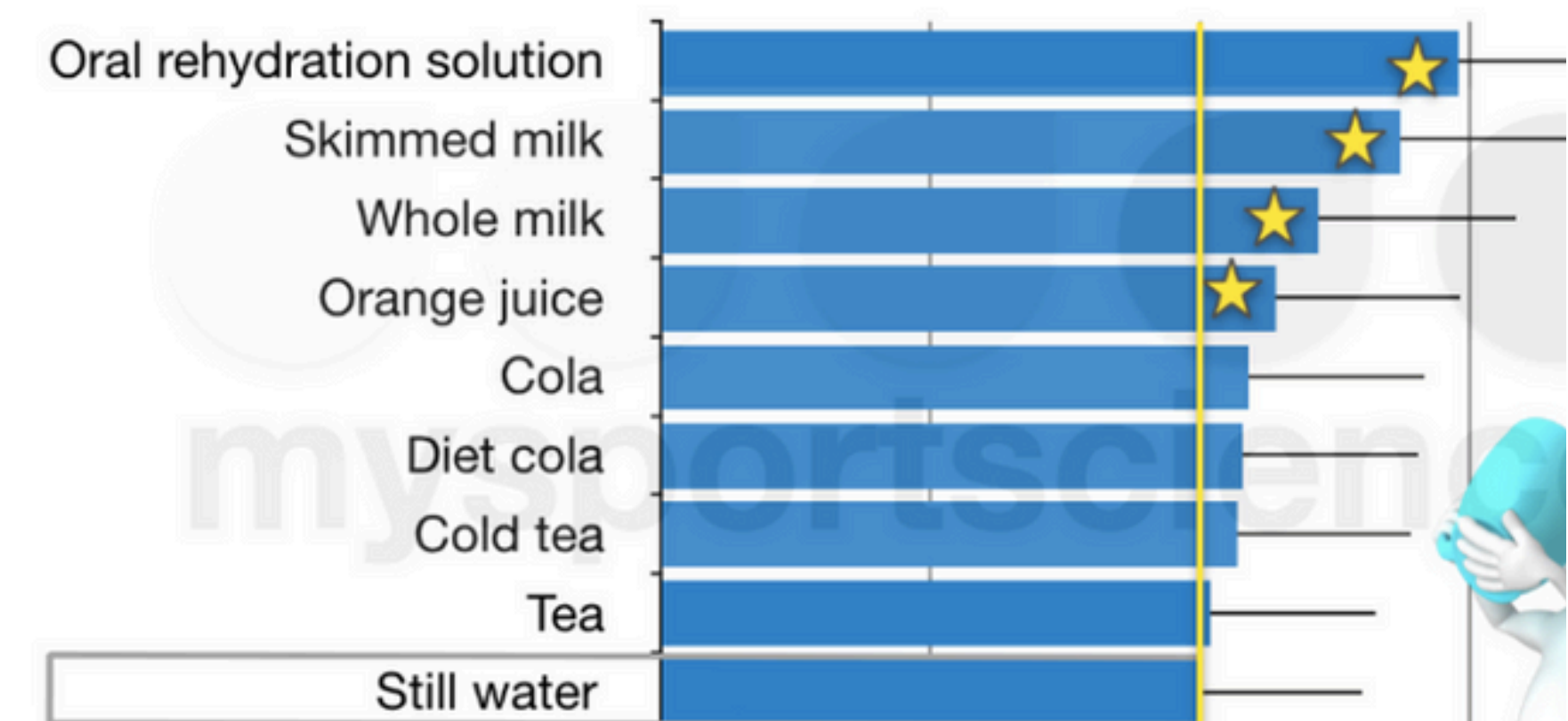


Urine Color Chart

| | | |
|---|--|--|
| 1 | | If your urine matches these colors, you are drinking enough fluids |
| 2 | | Drink more water to get the ideal color in Shade 1 and 2. |
| 3 | | Dehydrated |
| 4 | | You may suffer from cramps and heat-related problems |
| 5 | | Health risk! Drink more water. |
| 6 | | Health risk! Drink more water. |
| 7 | | Health risk! Drink more water. |
| 8 | | Health risk! Drink more water. |

Beverage Hydration Index

The higher the value, the better fluid is retained in the body





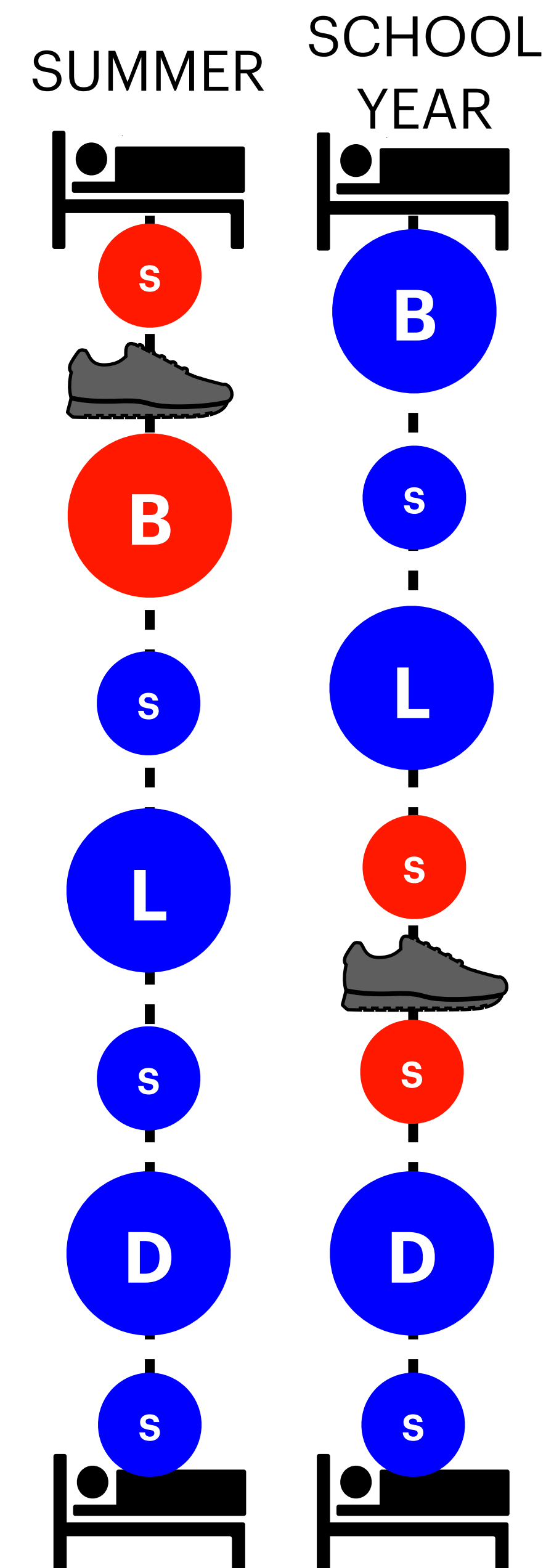
MYTH **EATING BEFORE EXERCISE WILL** **GIVE ME A STOMACH ACHE**

EATING EASY TO DIGEST CARBS BEFORE EXERCISE ACTUALLY *REDUCES* YOUR LIKELIHOOD OF HAVING STOMACH ISSUES! NOT EATING ENOUGH OR CLOSE ENOUGH TO EXERCISE *INCREASES* YOUR RISK FOR GI UPSET BECAUSE IT MAKES YOUR STOMACH MORE ACIDIC, AND THERE IS NO CARBOHYDRATE BEING DIGESTED TO NEUTRALIZE THE ACID.

EATING CERTAIN THINGS BEFORE EXERCISE CAN CAUSE ISSUES — FIBER, ARTIFICIAL SWEETENERS & SUGAR ALCOHOLS, AND FOODS TOO MUCH IN PROTEIN & FAT. IF YOU DEAL WITH STOMACH ISSUES DURING EXERCISE, MAKE SURE THAT ANY DRINKS OR GRANOLA BARS YOU ARE EATING DON'T HAVE EXCESSIVE FIBER (KIND BARS), SUGAR ALCOHOLS (PROTEIN BARS), OR ARTIFICIAL SWEETENERS (SUGAR-FREE SPORTS DRINKS).

FUEL... FREQUENTLY

- ☑ Athletes should be eating every 2-4 hours
 - ☑ Eat 5-8x daily
 - ☑ Eating breakfast really is as important as they say
 - ☑ Eating before & after exercise is CRITICAL
 - ☑ 5-60 minutes before
 - ☑ Within 30 minutes after
 - ☑ Bedtime snacks are a great idea!
- ☑ Summer is high risk for under-fueling ⇒ decreased performance in fall season
 - ☑ Not eating before morning runs
 - ☑ Sleeping in & less structure means fewer meals & snacks
- ☑ GI issues occur when athletes don't eat frequently enough!!!!





MYTH **EATING HEALTHY MEANS** **“EATING CLEAN”**

AN OVER-FOCUS ON EATING ‘CLEAN’ INCREASES RISK FOR RED-S & CREATES AN UNHEALTHY PSYCHOLOGICAL RELATIONSHIP WITH FOOD THAT OFTEN PROGRESSES TO DISORDERED EATING. OVER-FOCUSING ON “CLEAN” FOODS CAN ALSO RESULT IN MALNUTRITION AND NUTRITION MALABSORPTION DUE TO HIGHER FIBER AND DECREASED CALORIE INTAKE.

WHAT IS A “CLEAN FOOD” ANYWAYS?



MYTH
FAST FOOD OR JUNK FOOD
WILL “UNDO” MY WORKOUT

THERE IS NOTHING THAT YOU CAN EAT THAT WOULD UNDO TRAINING — NO MATTER WHAT YOU EAT, YOUR BODY WILL USE IT TO REPAIR AND RECOVER.

THE ONLY THING THAT WILL “UNDO” THE FITNESS GAINS FROM A TRAINING SESSION IS NOT EATING.

LET ME SHOW YOU ...

POSTEXERCISE GLYCOGEN RECOVERY & EXERCISE PERFORMANCE IS NOT SIGNIFICANTLY DIFFERENT BETWEEN FAST FOOD & SPORT SUPPLEMENTS

“The body has evolved to be very clever, he says; it can quickly grab and utilize the macronutrients it needs – carbs, protein, fat – even from seemingly low-quality food.”

The study: 90-minute exhaustive exercise on a stationary bike, followed by two McDonalds meals, and a 20-k time trial. On another day, the same protocol is completed, but with traditional sports recovery supplements that were matched in macro- and micronutrients to the McDonalds meals (same carbs, proteins, fats, vitamins minerals, etc.)

The measurements: markers of performance, recovery & inflammation for 72 hours post-trial — including subjective measures (RPE), blood work, muscle biopsies, and time trial performance

The results: No significant differences in performance, recovery or inflammation were found.

JUST FOR FUNSIES (FYI ... YOUR BODY CAN'T READ PACKAGING!)

| | Calories | Fat (g) | Carbs (g) | Added sugar (g) | Protein (g) | Cost |
|---|-------------------|----------------|------------------|------------------------|--------------------|----------------------------|
| Natures Bakery Bar vs. Pop-Tart | 200 185 | 5 4.5 | 37 35 | 14 15 | 3 1.5 | \$1.16 \$0.34 |
| Toast & Jam vs. Rice Krispie Treat | 130 150 | 2 4 | 28 29 | 11 13 | 2.6 1 | \$0.42 \$0.40 |
| Clif Bar vs. PayDay Bar Vs. PBJ | 260 240 300 | 8 13 10 | 42 27 40 | 17 21 15 | 9 7 9 | \$2.49 \$1.39 \$0.78 |
| Granola vs. Golden Grahams | 200 190 | 5 4 | 33 34 | 10 12 | 4 3 | \$1.07 \$0.40 |
| Skratch Recovery vs. Chocolate Milk | 200 200 | 3.5 2.5 | 35 34 | 33 16 | 8 9 | \$2.83 \$0.33 |
| Whole Foods Turkey Wrap vs. McDouble | 340 340 | 16 16 | 29 29 | 2 4 | 21 20 | \$8.99 \$4.09 |

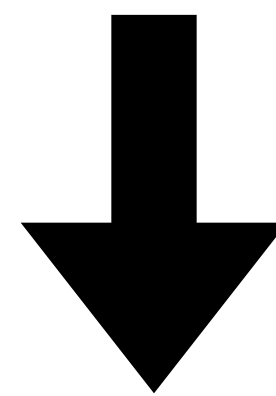
DEDICATED VS DESTRUCTIVE

- ☑ *Can you identify the difference?*
- ☑ Is your commitment to being dedicated actually destructive?
 - ☑ With training
 - ☑ With food
 - ☑ With injuries and/or pain
 - ☑ With your body
- ☑ Oftentimes the personality traits that are respected in athletes are also personality attributes that predispose athletes to eating and/or exercise disorders
 - ☑ Non-athlete ED prevalence: 4.6%
 - ☑ Athlete ED prevalence: 14.5%
- ☑ *What are common behaviors in sport that are normalized but aren't actually healthy?*
- ☑ *Are some of your behaviors predisposing you to Low Energy Availability or Relative Energy Deficiency in Sport?*



WHAT IS LOW ENERGY AVAILABILITY?

“... any mismatch between dietary energy intake and energy expended in exercise that leaves the body’s total energy needs unmet, that is, there is inadequate energy to support the functions required by the body to maintain optimal health and performance.”

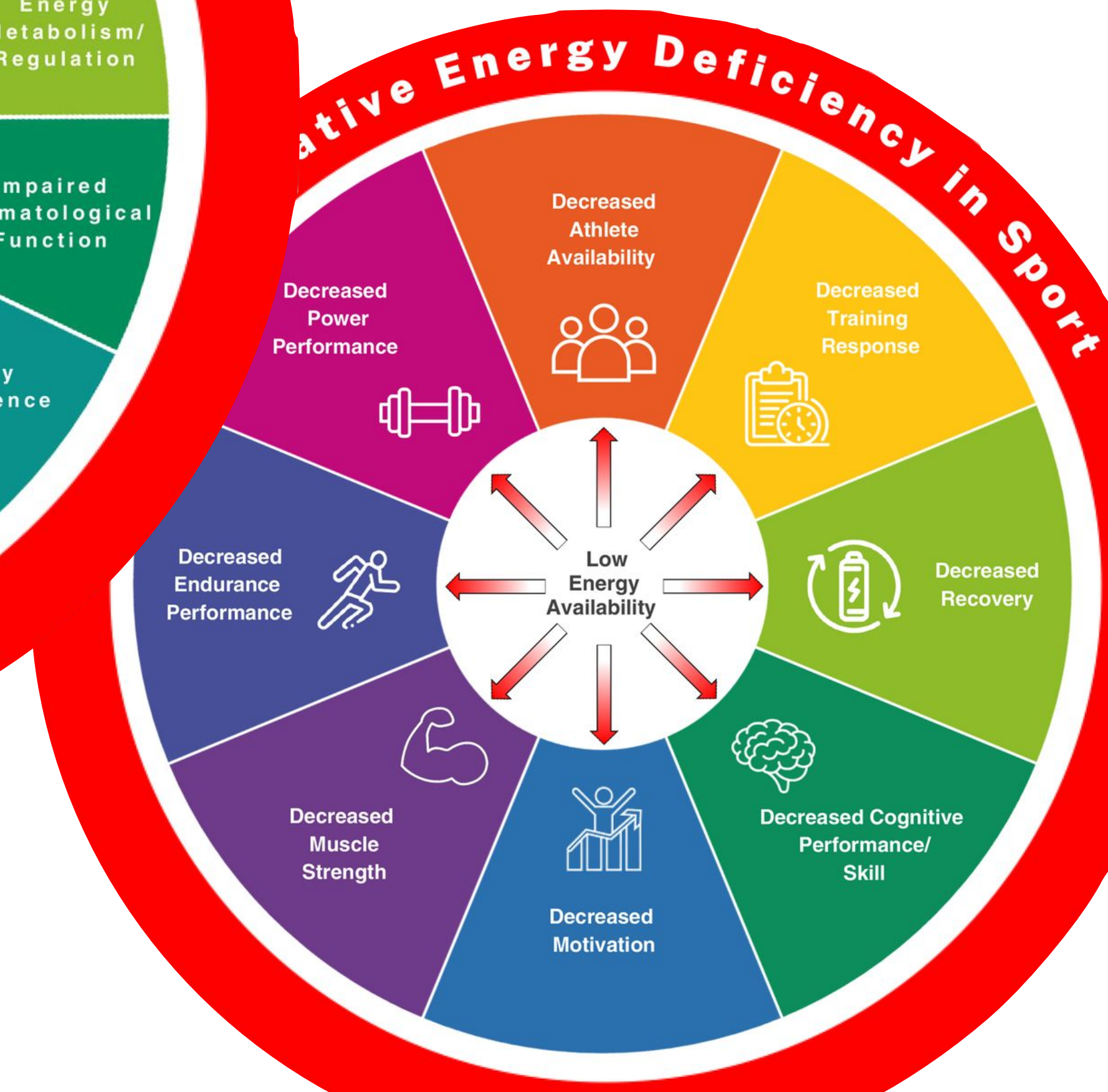
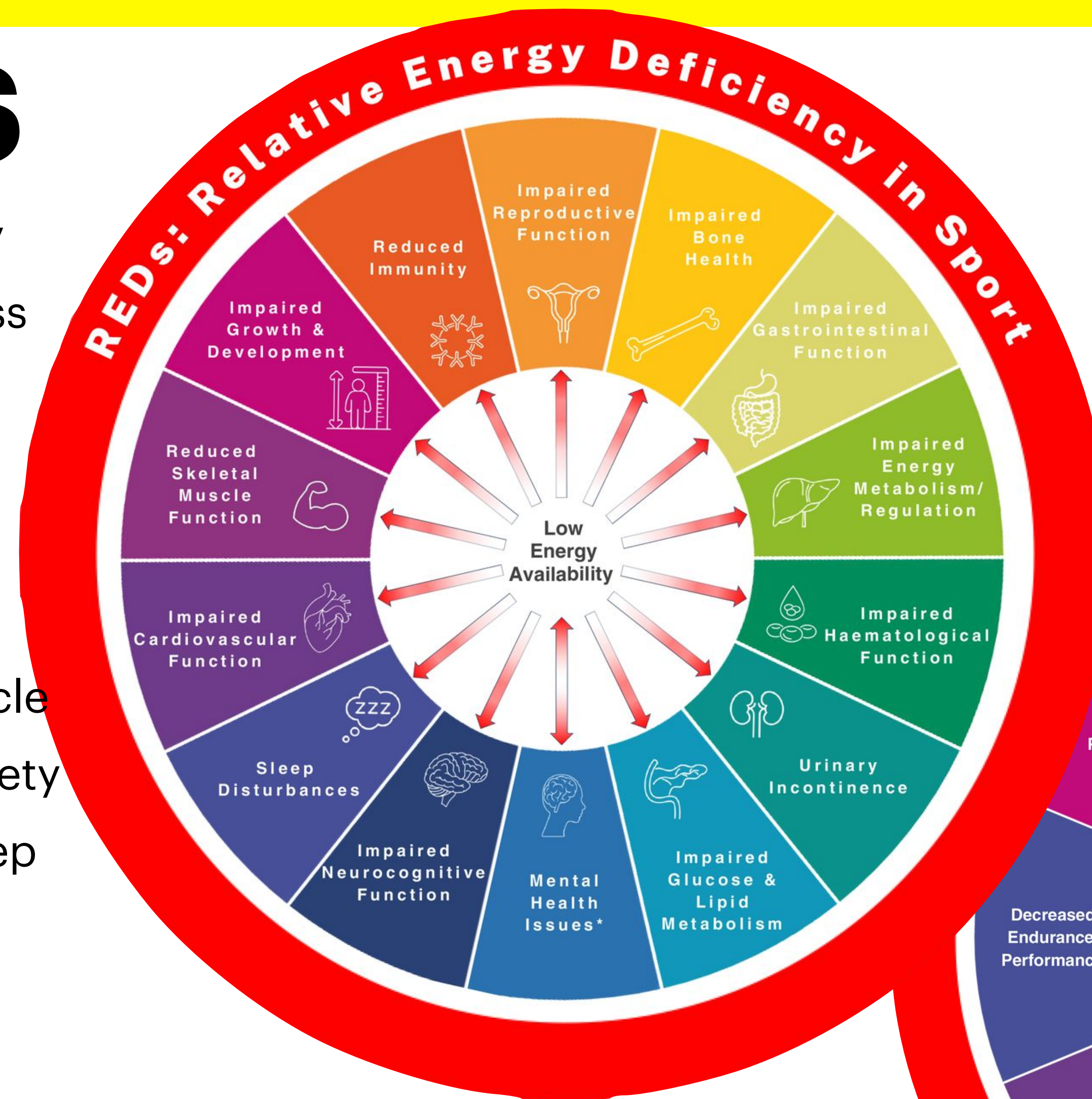


RELATIVE ENERGY DEFICIENCY IN SPORT

“a syndrome of impaired physiological and psychological functioning ... that is caused by exposure to problematic LEA. The detrimental outcomes include, but are not limited to, decreases in energy metabolism, reproductive function, musculoskeletal health, immunity, glycogen synthesis and cardiovascular and hematological health, which can all individually and synergistically lead to impaired well-being, increased injury risk and decreased sports performance.”

RED FLAGS

- ☑️ Poor concentration & memory
- ☑️ New/frequent stomach distress
- ☑️ Frequent illness and/or injury
- ☑️ Low resting heart rate
- ☑️ dizziness/lightheadedness
- ☑️ Declines in performance
- ☑️ Irregular/absent menstrual cycle
- ☑️ Moodiness, depression & anxiety
- ☑️ Trouble falling or staying asleep
- ☑️ Low iron, high triglycerides
- ☑️ Carbohydrate restriction
- ☑️ **Weight changes?**



*Look up the REDS CAT2 for determining safety of sport participation

*Read more on REDs from the *2023 REDs Consensus Update*

THE LEAF-Q & LEAM-Q

Think you might have REDs?



DISORDERED EATING

- ✓ Athletes have higher rates of delayed puberty & eating disorders than non-athletes
- ✓ This includes food rigidity/routine that limits amount or variety of foods
- ✓ More restrictive eating during a high school career is associated with a shorter college and/or adult career
- ✓ **85%** of high school female-bodied athletes exhibit at least 1 health-related symptom of RED-S
- ✓ Your generation is more likely to develop an eating disorder than diabetes

ORTHOREXIA

- ✓ Disguised as “healthy” or “clean” eating
- ✓ Avoiding sugar, especially if not “natural”
- ✓ Avoiding processed foods, trans fats, etc.
- ✓ Only eating organic, grass-fed, etc.
- ✓ Rule versus preference

Eating disorders affect *both males and females* and often strike during adolescence. If not treated, they can have serious, even fatal consequences.

Surprising Eating Disorder Statistics



50%

Americans who know someone with an eating disorder



of people with eating disorders are aged **12 to 25**

18-20% of anorexics die within **20 years** of contracting the disease

LET'S REDEFINE "HEALTHY"

Health /helTH/ noun

Healthy eating

Healthy food

HELPFUL OR HARMFUL?

REDEFINING 'HEALTHY EATING' FOR ATHLETIC PERFORMANCE



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