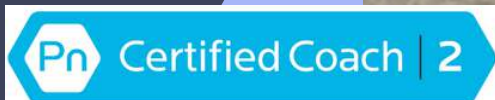


NUTRITION FOR TRAINING AND RACING

Patrick Ash, MSc

CEO
Endurance Journey Coaching



WHERE WE ARE IN THE SERIES...



November '22- What it Takes



December '22- Goal Setting



January '23- How to Train (Fit It All In)



February '23- Swim, Bike, Run (What You Need To Know)



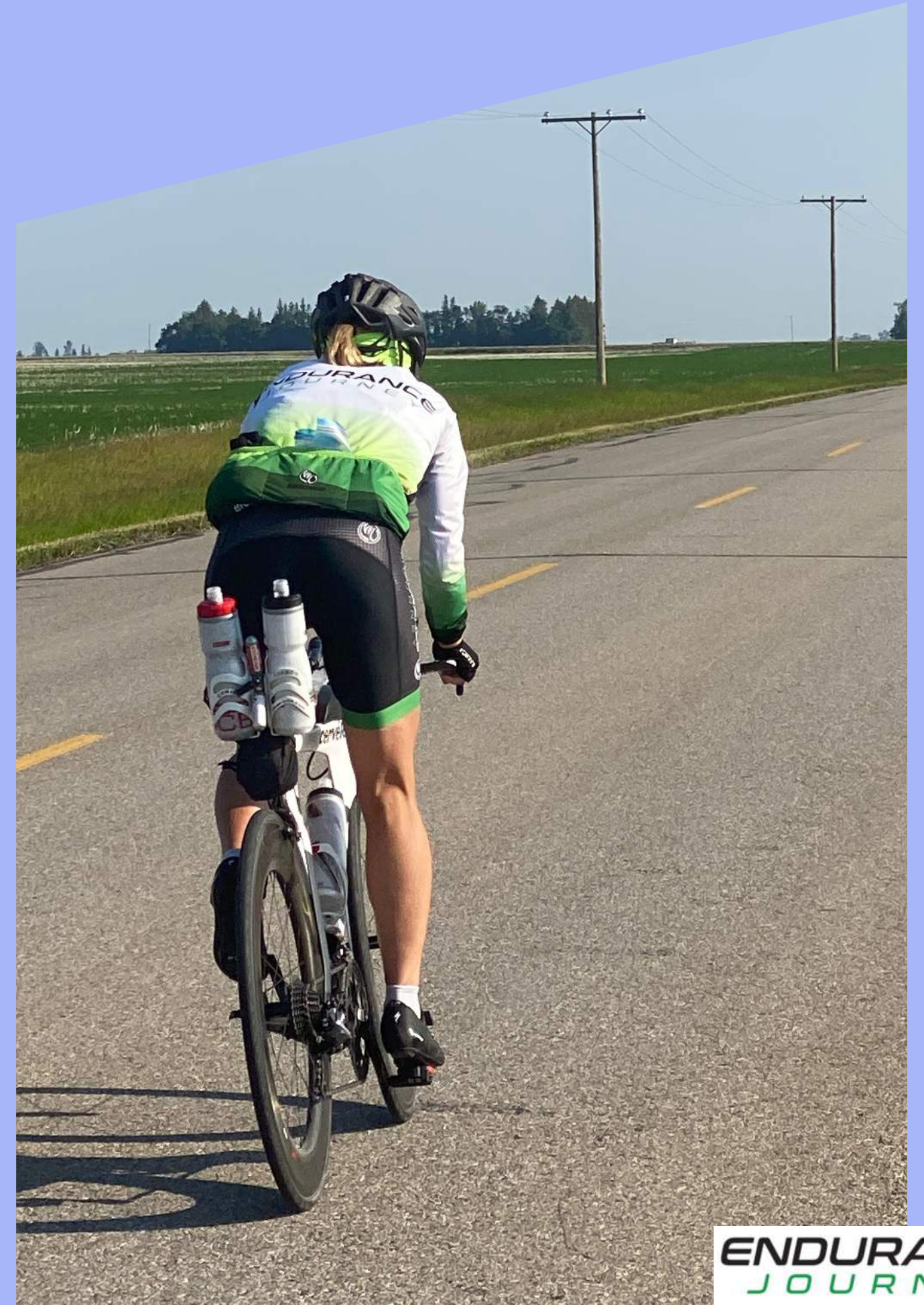
March '23 - Health, Fitness, And Performance - Can You Have It All?



April 3rd/23 - Hydration For Training and Racing

TODAY- Nutrition for Training and Racing

May 1/23- Event Day Preparation



NUTRITION FOR TRAINING AND RACING



What we'll cover in this session (by priority)...

1

How is That Working For You?

Simple way to understand if changes need to be made

2

Daily Nutrition Guidelines

Good Nutrition Habits - Guidelines for daily intake + considerations

3

Training/Racing Nutrition

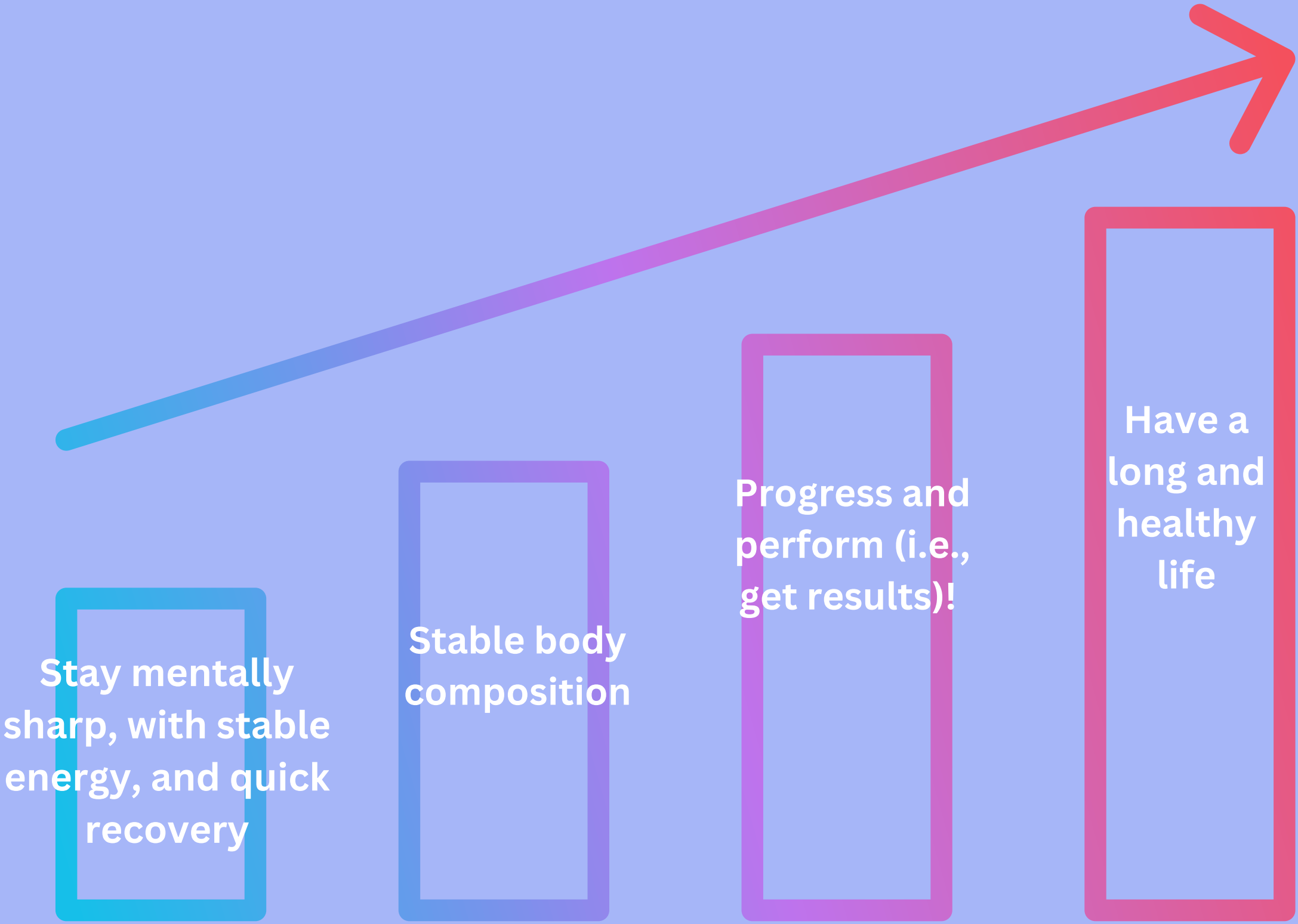
Nutrient Timing - Before, During, and After
Training/Racing to enhance recovery and performance

4

Customize Your Nutrition Strategy


How to understand your nutrition needs and create a training and race day nutrition plan

HOW CAN I EAT TO OPTIMIZE THE WAY I FUNCTION, FEEL, AND PERFORM (FFP)?





*Source Precision Nutrition Sport Nutrition Certification




"How is That Working For You?"

	Watch Out For:	Description
	Swings	<ul style="list-style-type: none">• Changes in energy, motivation, mood, and/or extreme hunger

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	Cravings	<ul style="list-style-type: none">• Depletion - not getting enough nutrients

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	Binges	<ul style="list-style-type: none">• Missing/skipping opportunities to consume ideal food to meet your demands• Sign of too much x 3 - too much intensity, too much stress, too much load

"How is That Working For You?"

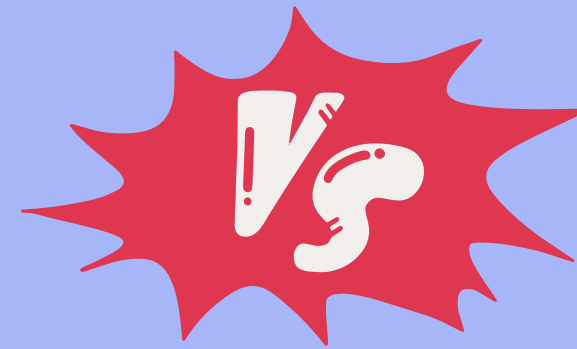
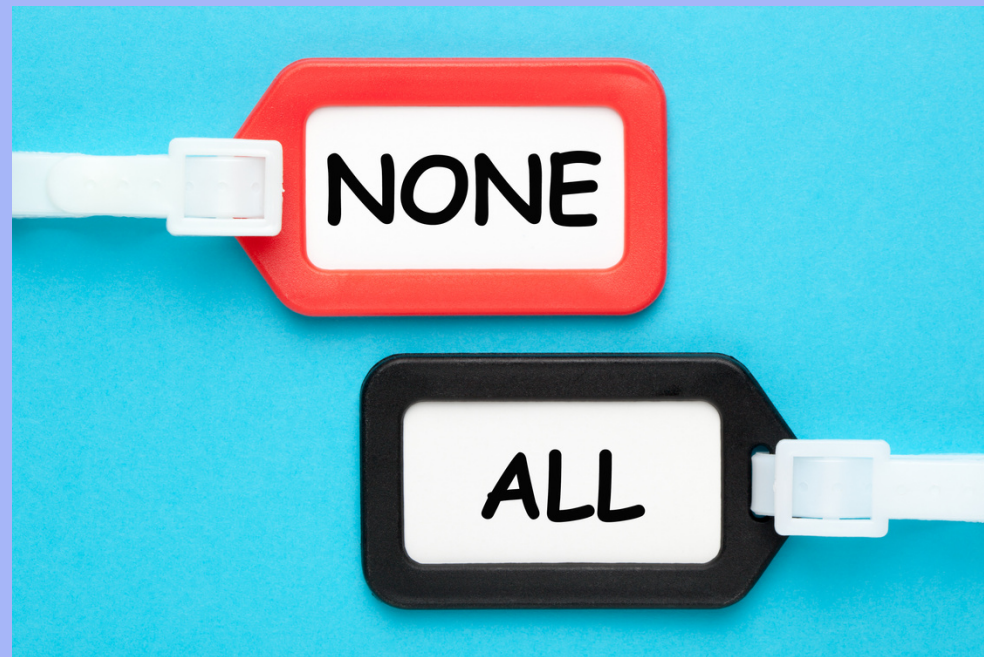
	Watch Out For:	Description
	Swings	<ul style="list-style-type: none"> • Changes in energy, motivation, mood, and/or extreme hunger
	Cravings	<ul style="list-style-type: none"> • Depletion - not getting enough nutrients
	Binges	<ul style="list-style-type: none"> • Missing/skipping opportunities to consume ideal food to meet your demands • Sign of too much x 3 - too much intensity, too much stress, too much load
	Injury/Illness	<ul style="list-style-type: none"> • Sign of too much x 3
	The Way You Feel After Eating the Food	<ul style="list-style-type: none"> • Pay attention to bloating, cramping, diarrhea, gas, headaches or migraines, heartburn, nausea, upset stomach • Swap irritant foods with something you tolerate - milk vs rice milk, quinoa vs regular pasta



Stable body composition, energy, and stay there while feeling confident and competent (during training, racing, AND in daily life)

Building Good FFP Nutrition Habits

Mindset

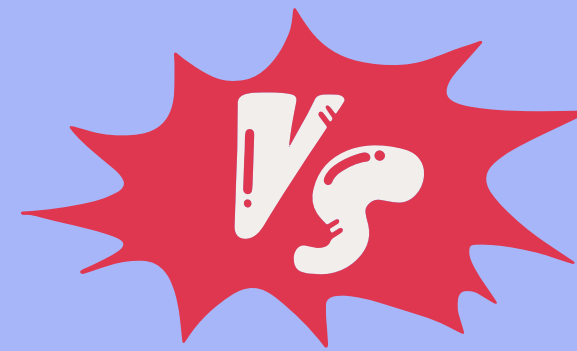


- You see things as all-or-nothing, either-or, usually in extremes (like “perfect” or “horrible”)
- Unless you follow a diet or workout perfectly, 100 percent of the time, you’ve failed
- Lacks flexibility (e.g., social, travel, etc.)
- Makes eating a stressful "task" instead of enjoyable nourishment for your body

*Source Precision Nutrition Sport Nutrition Certification

Building Good FFP Nutrition Habits

Mindset



- You see things as all-or-nothing, either-or, usually in extremes (like “perfect” or “horrible”)
- Unless you follow a diet or workout perfectly, 100 percent of the time, you’ve failed
- Lacks flexibility (e.g., social, travel, etc.)
- Makes eating a stressful "task" instead of enjoyable nourishment for your body

- What can I eat more of to meet my nutrition and energy needs?
- What do I currently eat that I can replace with a better choice to support my goals?
- More flexibility (e.g., social, travel, etc.)
- Mindset of addition rather than subtraction (i.e., stop thinking avoidance, good vs bad, right vs wrong foods)

*Source Precision Nutrition Sport Nutrition Certification



What is your current nutrition mindset?

**Do you prioritize your nutrition like you do
your training?**



NUTRIENT TIMING

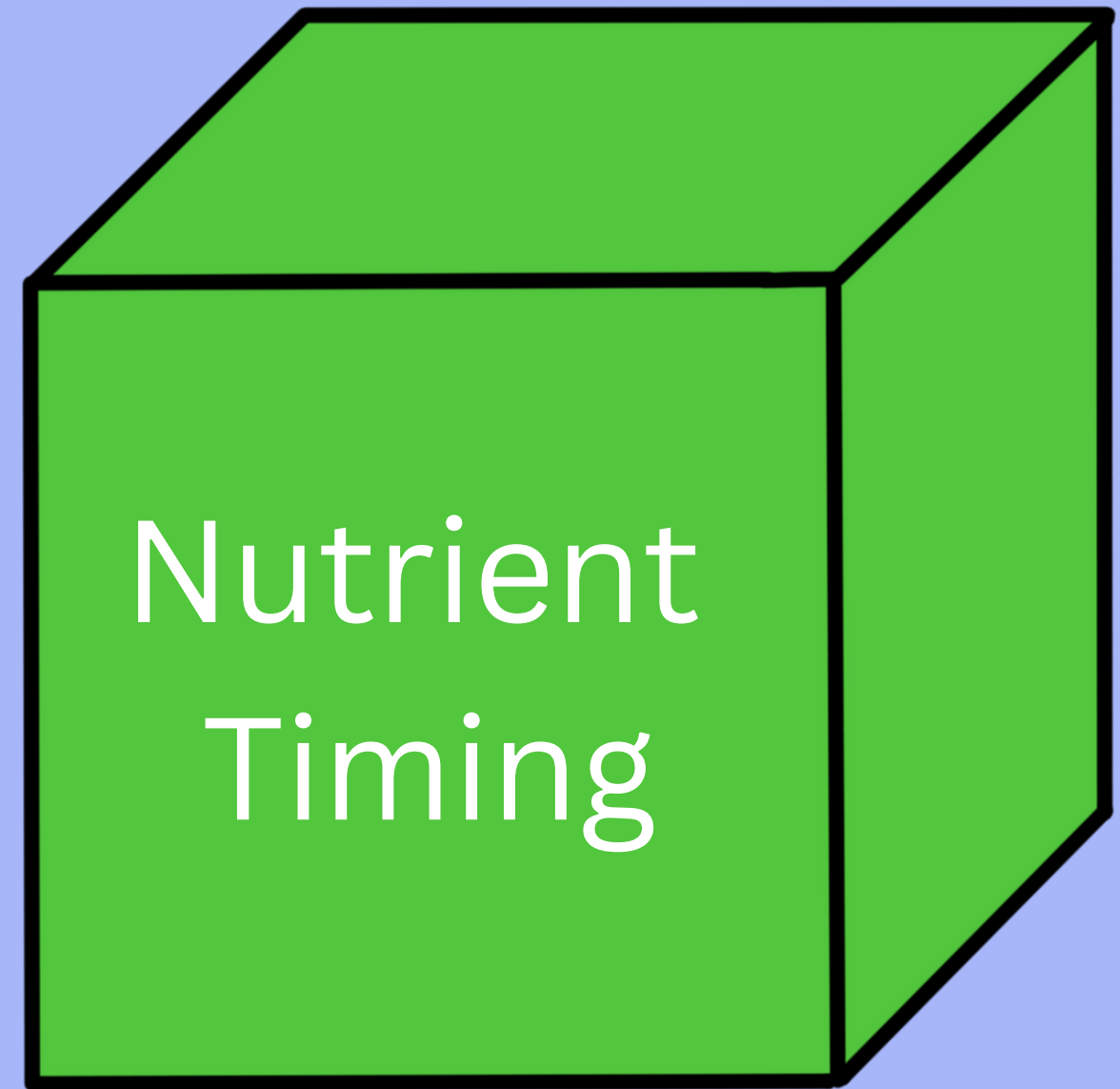
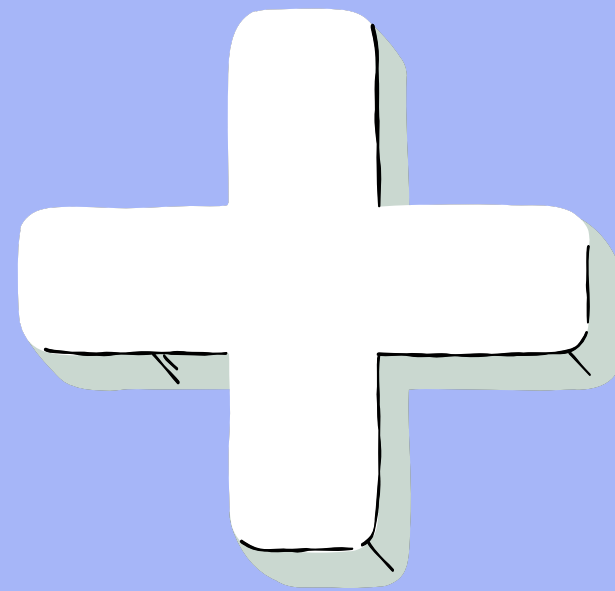
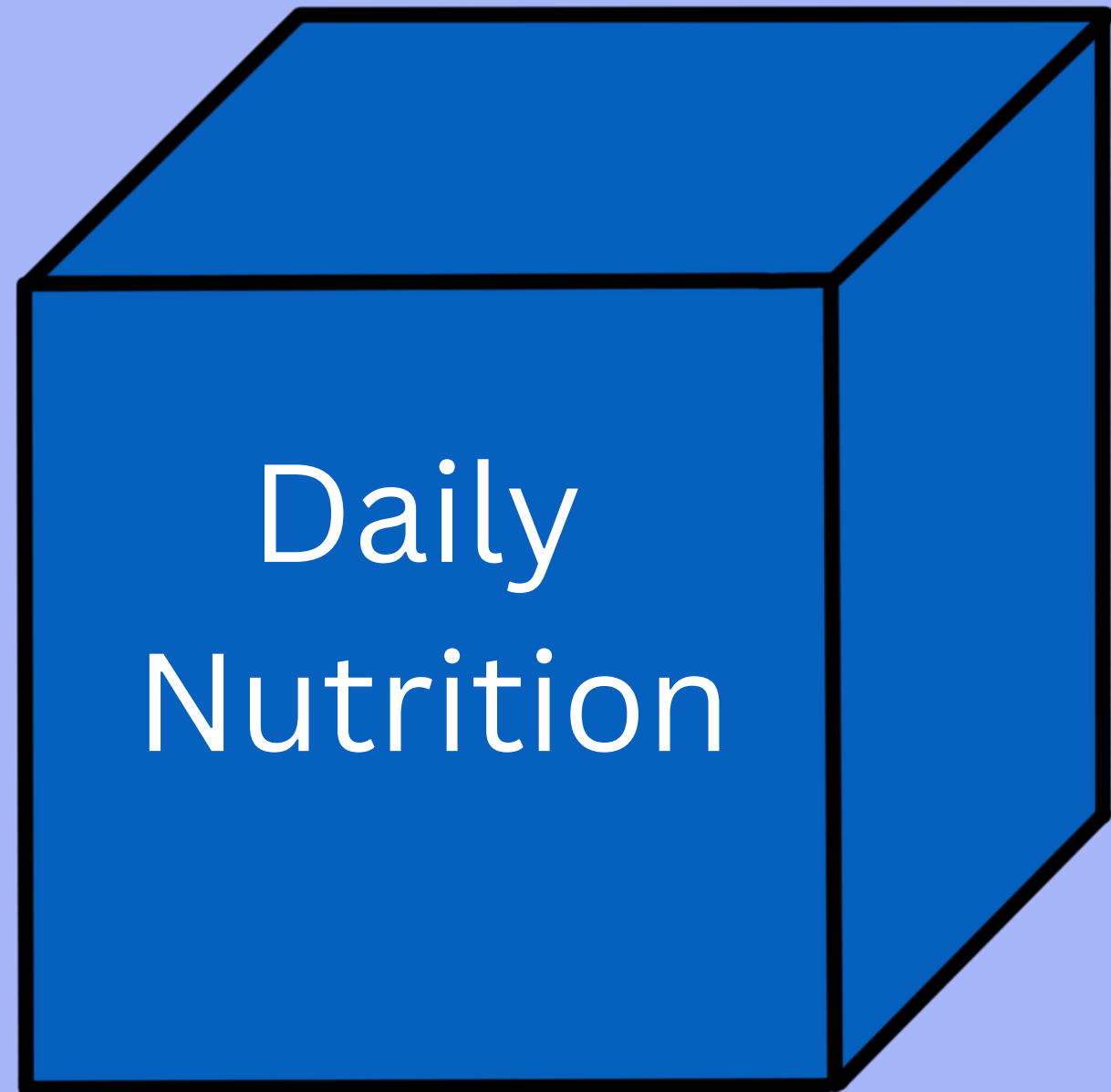
Nutrient Timing = Timing Nutrition Intake:

- Before Training
- During Training
- After Training



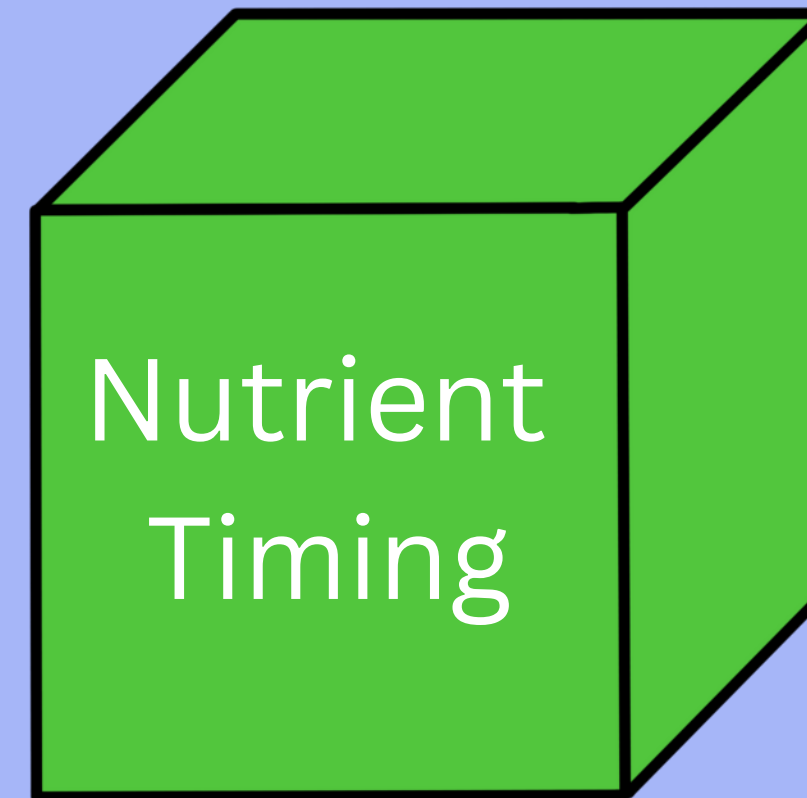
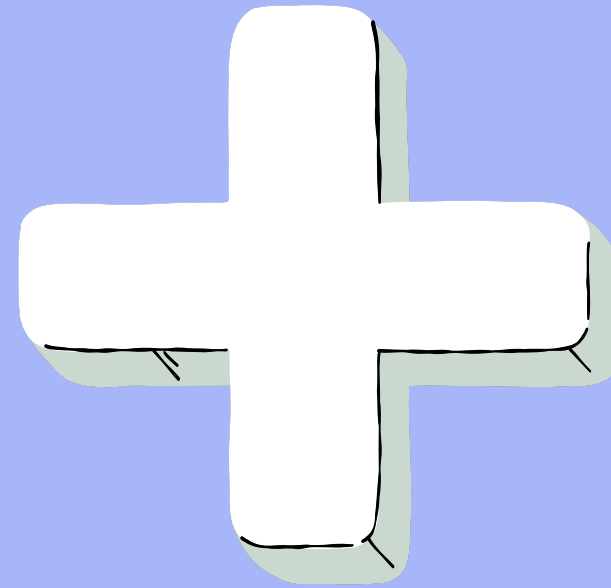
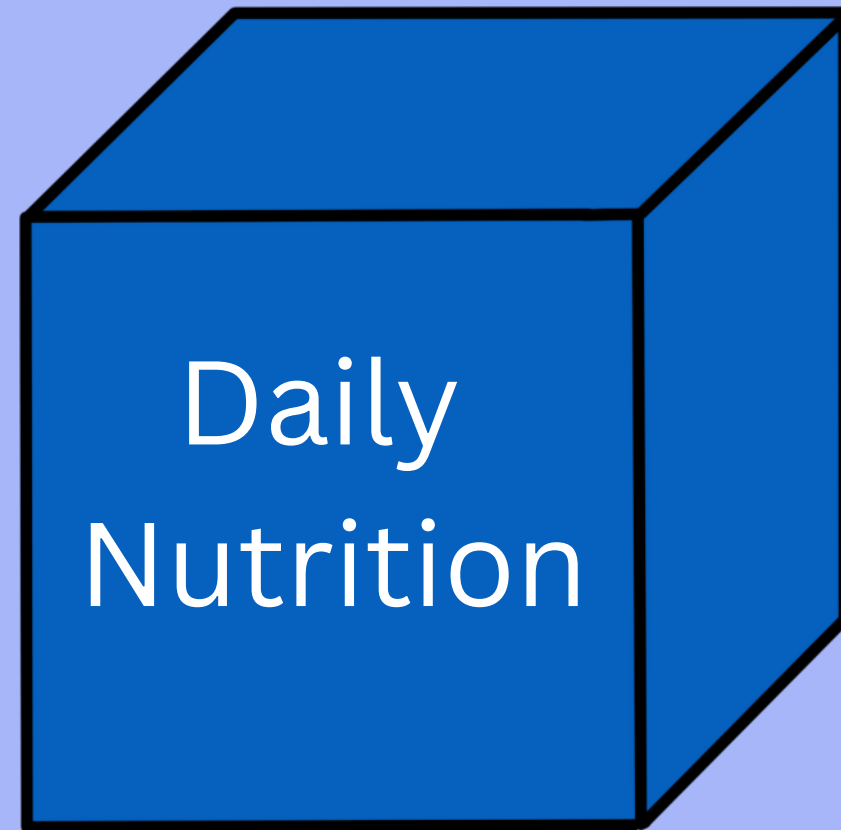
NUTRIENT TIMING

EAT TO TRAIN RATHER THAN TRAIN TO EAT



NUTRIENT TIMING

EAT TO TRAIN RATHER THAN TRAIN TO EAT



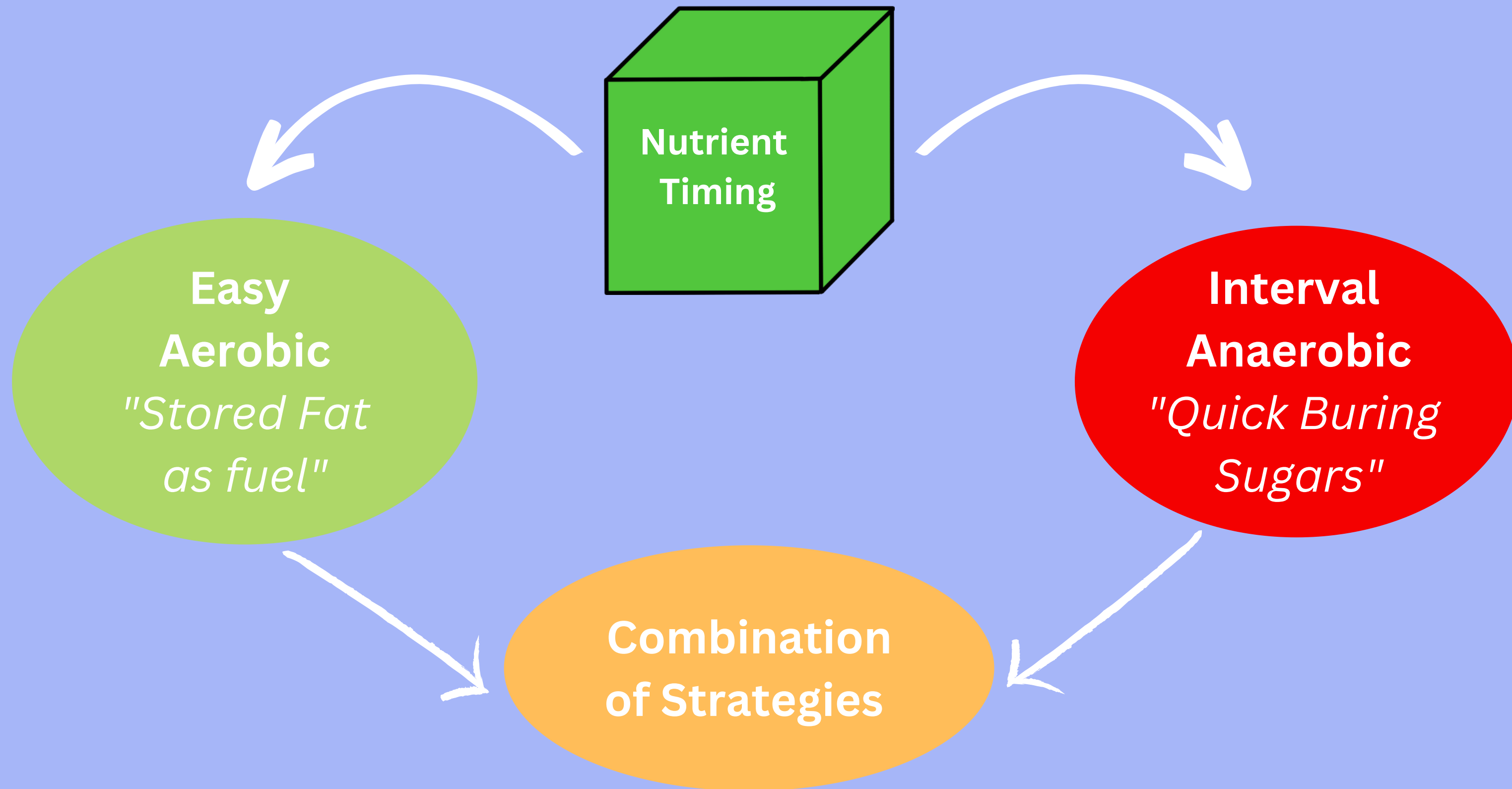
What Type Of Training Session?

Easy
Aerobic

Interval
Anaerobic

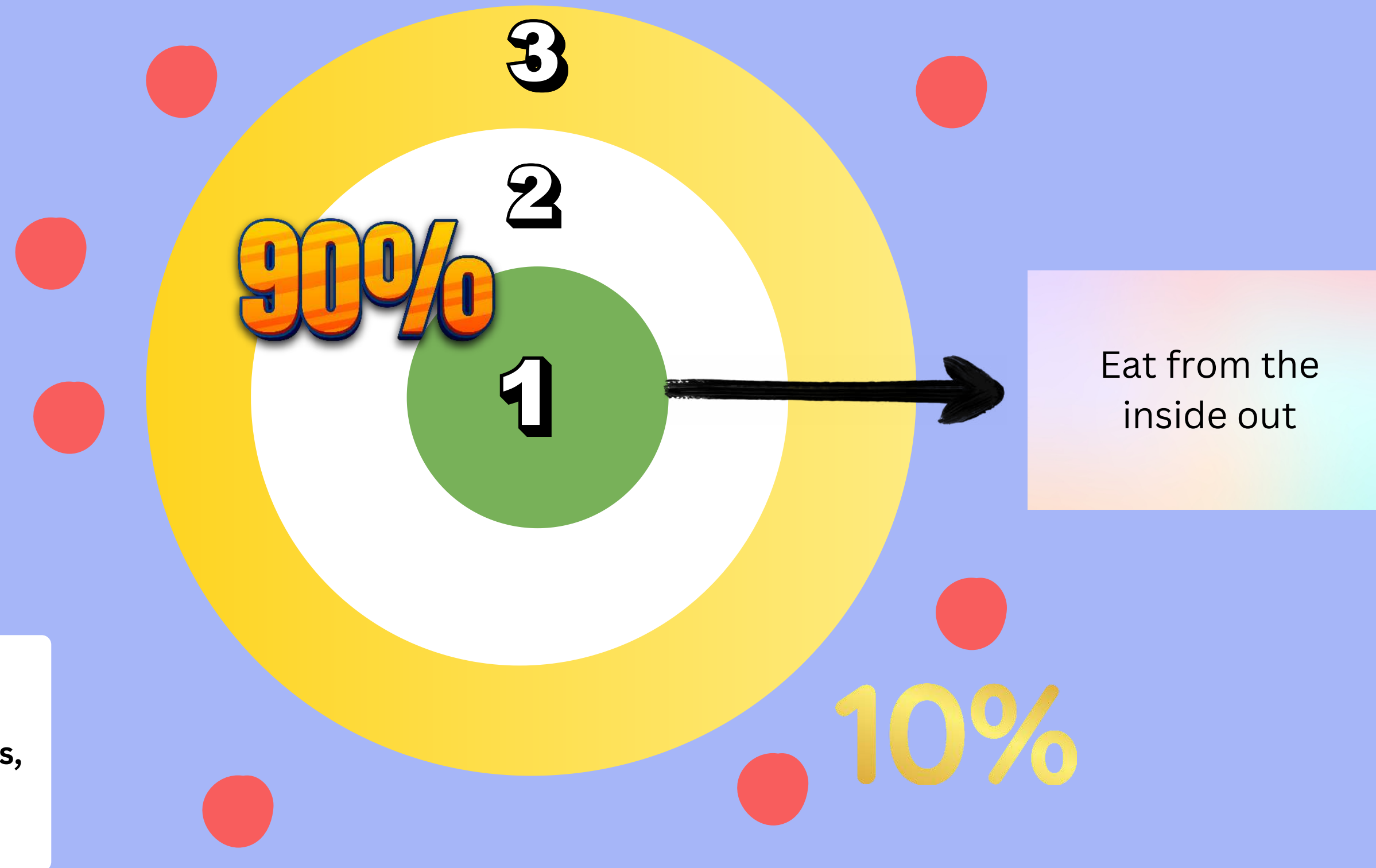
DEVELOPING ENERGY FLEXIBILITY

A.K.A - METABOLIC EFFICIENCY/FLEXIBILITY



*Source: Metabolic Efficiency Training - Bob Seebohar

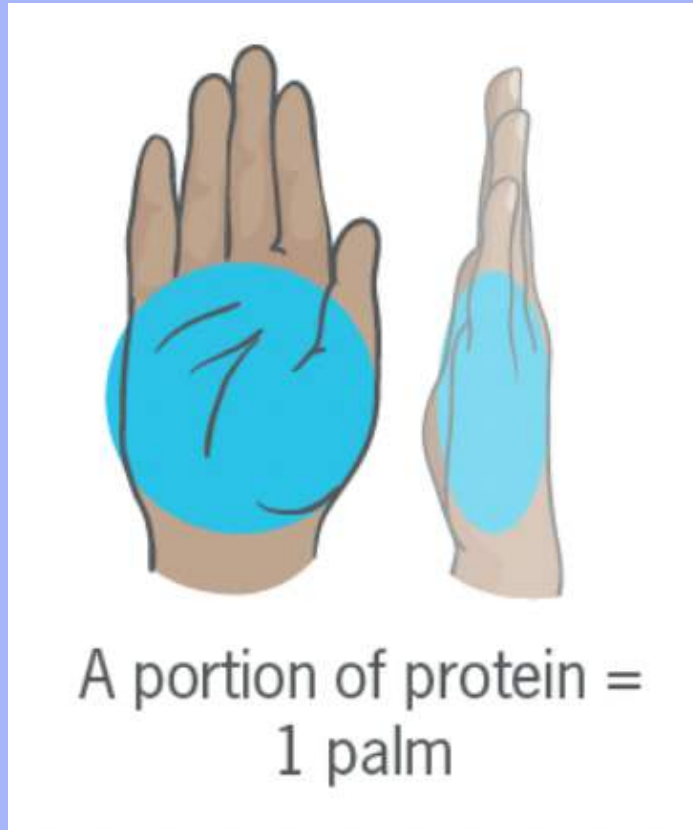
DAILY EATING STRATEGIES* TO SUPPORT YOUR HEALTH, FITNESS, AND PERFORMANCE



- 1. Protein/Fats
- 2. Veggies
- 3. Smart Carbs (i.e., fruits, grains, and starches)
- Misses

*Outside of Training - Source: UESCA Sports Nutrition Certification

EXAMPLE PROTEINS



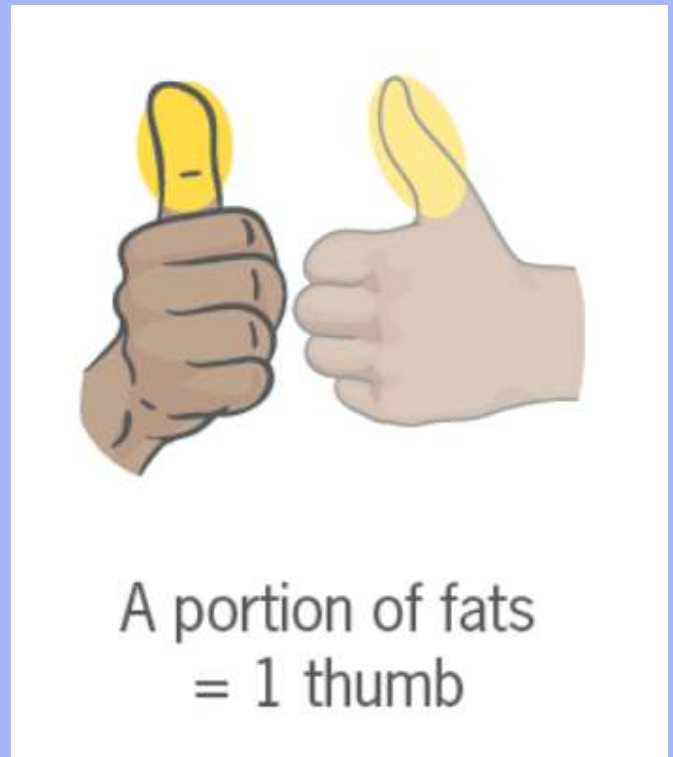
~4 to 5 oz =
~20-30 grams of protein

Protein

Prioritize fresh, lean, minimally processed sources of protein, and consider limiting red meat to ~18 oz (or 4 palms) per week or less.

EAT MORE	EAT SOME	EAT LESS
Eggs and egg whites Fish Shellfish	Uncultured cottage cheese Medium-lean meats	Fried meats Chicken fingers, nuggets, and wings
Chicken Duck breast and thighs Turkey	Canadian bacon Meat jerky	High-fat meat High-fat sausages
Lean beef Bison Lean pork	Lamb Minimally processed lean deli meat	Processed deli meats Protein bars
Wild game Other meats: goat, camel, horse, kangaroo, crocodile Plain Greek yogurt	Poultry sausage Protein powders	Pepperoni sticks High-mercury fish
Tempeh Tofu Edamame	Seitan Tempeh bacon	Plant-based meats Burgers, sausage, hot dogs, tofurky, etc.
Cultured cottage cheese Insects	Textured vegetable protein	<p><i>This includes items such as Impossible, Beyond, Gardein, Boca, etc. Most of these are made from a highly-processed plant protein, along with added oils, salts, sugars, flavors and colors.</i></p>
Lentils and beans	Black bean burgers Traditional veggie burgers	
<p><i>These only count as your protein source if a more protein-rich option (such as above) is not in the meal. Otherwise, they count as a carbohydrate source (as they contain more carbohydrates than protein).</i></p>	<p><i>These only count as your protein source if a more protein-rich option (such as above) is not in the meal. Otherwise, they count as a carbohydrate source (as they contain more carbohydrates than protein).</i></p>	

EXAMPLE FATS



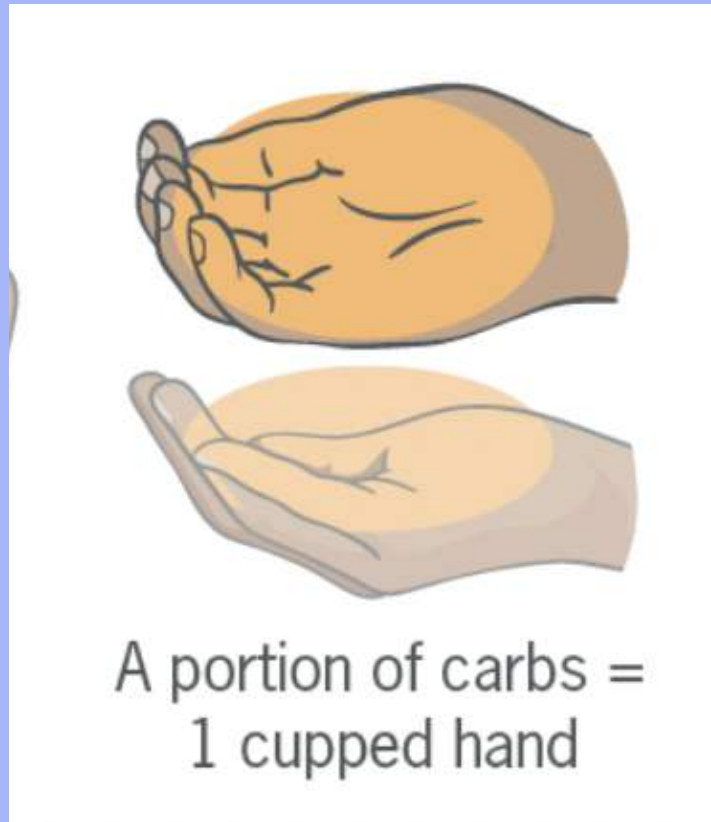
~1 tablespoon

Fats

Aim for a mix of whole-food fats (like nuts and seeds), blended whole foods (like nut butters), and pressed oils (like olive and avocado).

EAT MORE	EAT SOME	EAT LESS
Extra virgin olive oil Walnut oil Marinades and dressings with oils in this category	Virgin and light olive oil Expeller pressed canola oil Sesame oil	Bacon Sausage <i>Also sources of protein, though usually higher in less desirable fats.</i>
Avocado and avocado oil Cheese, aged > 6 months Egg yolks	Flaxseed oil Coconut oil / milk Peanut oil and regular peanut butter	Butter Margarine Processed cheese
Seeds: chia, flax, hemp, pumpkin and sesame Cashews Pistachios	Dark chocolate Marinades and dressings with oils in this category Fish and algae oil	Corn oil Cottonseed oil Sunflower oil
Almonds Brazil nuts Pecans	Cream Cheese aged <6 months Flavored nuts and nut butters	Canola oil Soybean oil Safflower oil
Peanuts & natural peanut butter Walnuts Olives	Trail mix <i>Often rich in carbohydrates as well, with sources of varying quality.</i>	Marinades and dressings with oils in this category Vegetable oil Fat-rich foods with 10+ g added sugar
Pesto made w/ extra virgin olive oil Nut butters from other nuts in this category Fresh unprocessed coconut	High oleic safflower oil High oleic sunflower oil <i>These naturally-bred oils are high in heart-healthy monounsaturated fats and contain little saturated fats and no trans fats.</i>	Hydrogenated oils and trans fats Shortening

EXAMPLE CARBS



~1/2 cup

Carbohydrates

Focus on whole, minimally processed sources of carbohydrates that pack lots of nutrition and fiber, and include a mix of starches and colorful fruits.

EAT MORE	EAT SOME	EAT LESS
<ul style="list-style-type: none"> Beans and lentils Steel-cut, rolled, and old-fashioned oats Buckwheat 	<ul style="list-style-type: none"> Couscous White rice Granola 	<ul style="list-style-type: none"> Cereal bars Fruit juices Flavored milk
<ul style="list-style-type: none"> Quinoa Whole-grain, black, and wild rice Sorghum 	<ul style="list-style-type: none"> Instant or flavored oats Milk Vegetable juices 	<ul style="list-style-type: none"> Honey, molasses, syrups & jellies Canned, dried, and pureed fruit w/added sugar Sweetened sports drinks
<ul style="list-style-type: none"> Farro Millet Potatoes 	<ul style="list-style-type: none"> Flavored yogurt Flavored kefir Pancakes and waffles 	<ul style="list-style-type: none"> Juice drinks Sweetened energy drinks Plant milks, sweetened
<ul style="list-style-type: none"> Amaranth Plain non-Greek yogurt Plain kefir 	<ul style="list-style-type: none"> Whole-grain crackers Oat-based granola bars Canned, dried, and pureed unsweetened fruit 	<ul style="list-style-type: none"> Soda Crackers Sugar
<ul style="list-style-type: none"> Fresh and frozen fruit Corn Sweet potatoes 	<ul style="list-style-type: none"> Bean and pulse pasta 	<ul style="list-style-type: none"> Pretzels Foods with 10+g added sugar
<ul style="list-style-type: none"> Barley Taro Yuca 	<ul style="list-style-type: none"> White bagels, breads, English muffins, pastas, and wraps 	<p><i>These foods are also rich sources of fats, so be mindful of both their carbohydrate and fat content.</i></p> <ul style="list-style-type: none"> Chips Fries Ice cream and frozen yogurt
<ul style="list-style-type: none"> Whole or sprouted grain bagels, breads, English muffins, pastas, and wraps 		<ul style="list-style-type: none"> Candy bars Donuts Cookies
		<ul style="list-style-type: none"> Pastries Muffins Cakes

EXAMPLE MISSES

I.E., "EAT LESS " FOODS



Sports Nutrition Products	Chips
Cookies	Cake
Processed Refined Foods	Candy
Chocolate	Fruit Juices
Alcohol	Cupcakes

Source: Precision Nutrition/UESCA Sports Nutrition Certification

FOOD TARGET LIST

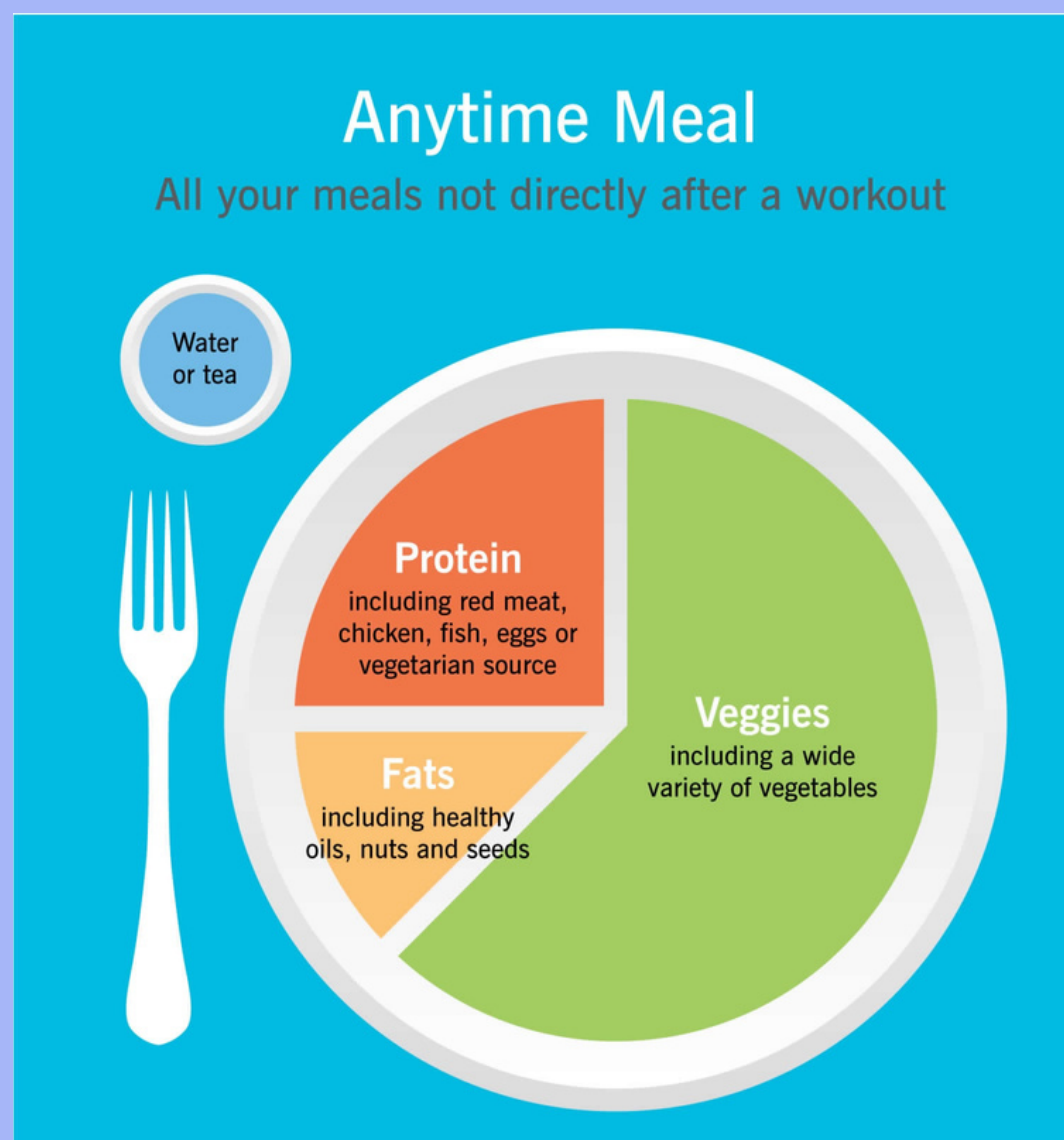
SHOPPING LIST AND MEAL PLANNER ALL IN ONE

Prioritize Eating Foods From the Left to the Right 

#1	#2	#3	#4
Protein/Fat	Veggies	Carbs	Misses
			

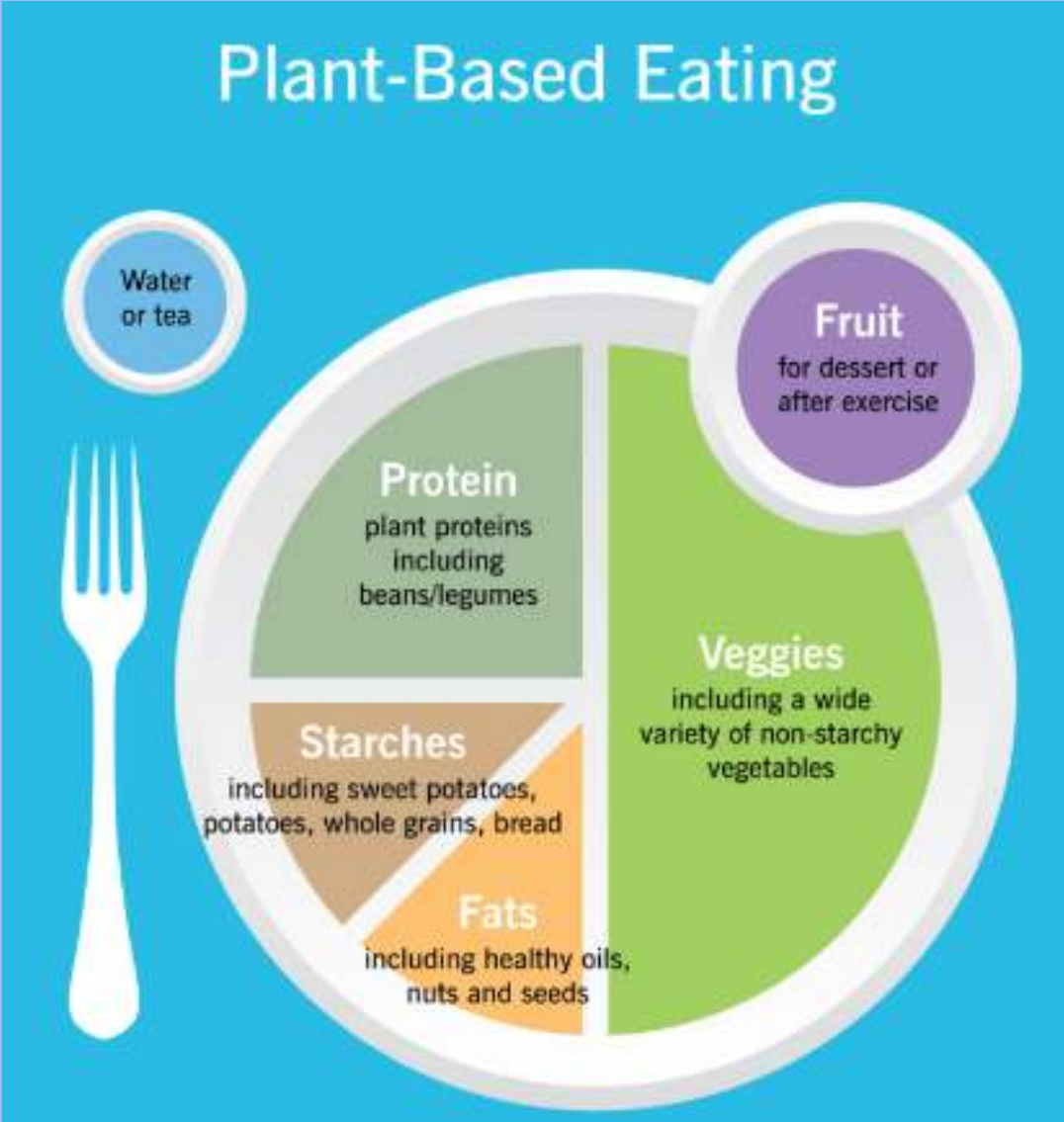
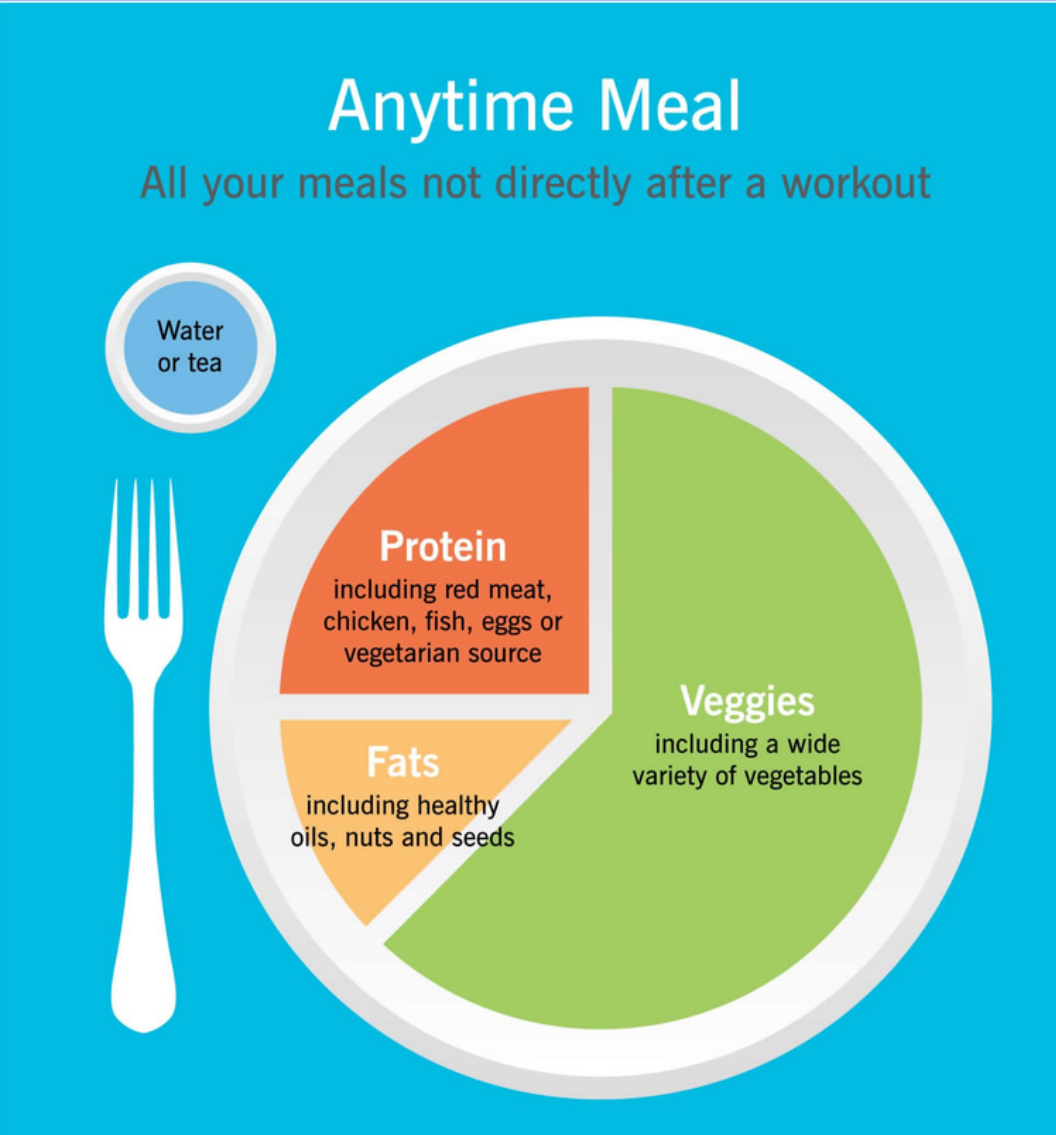
Source: Precision Nutrition

Eating Strategy #1 - Design Your Own Plate



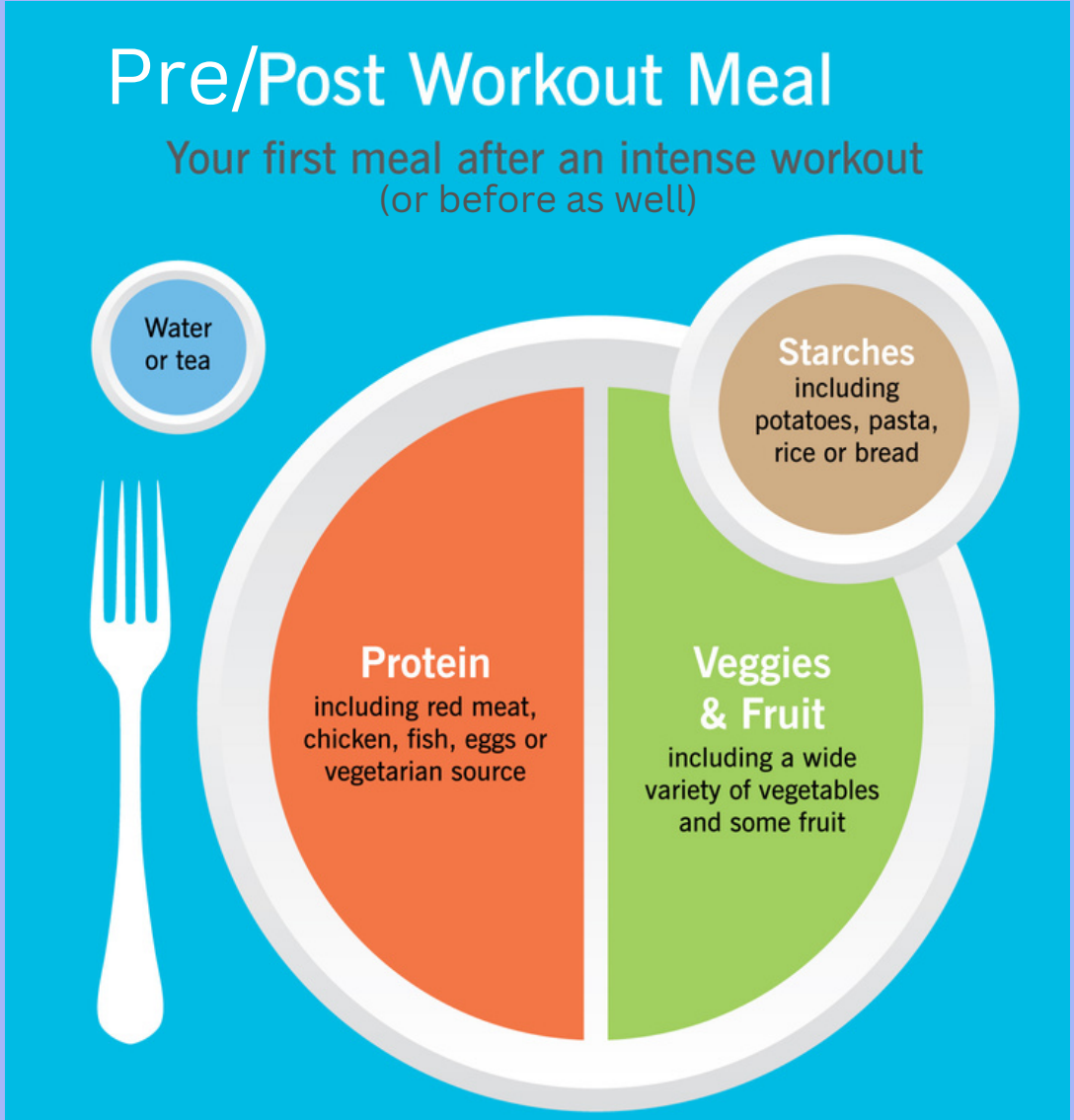
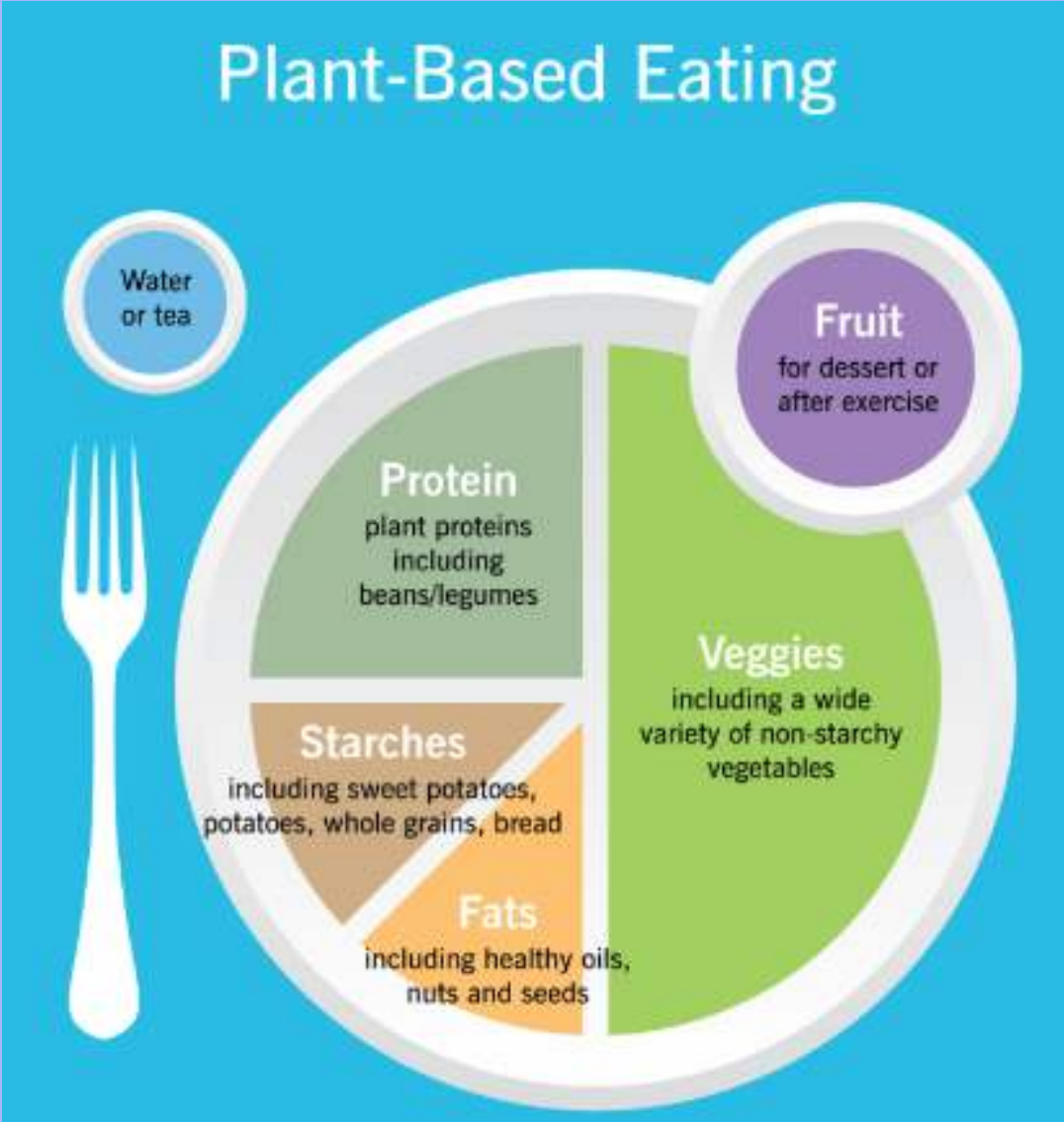
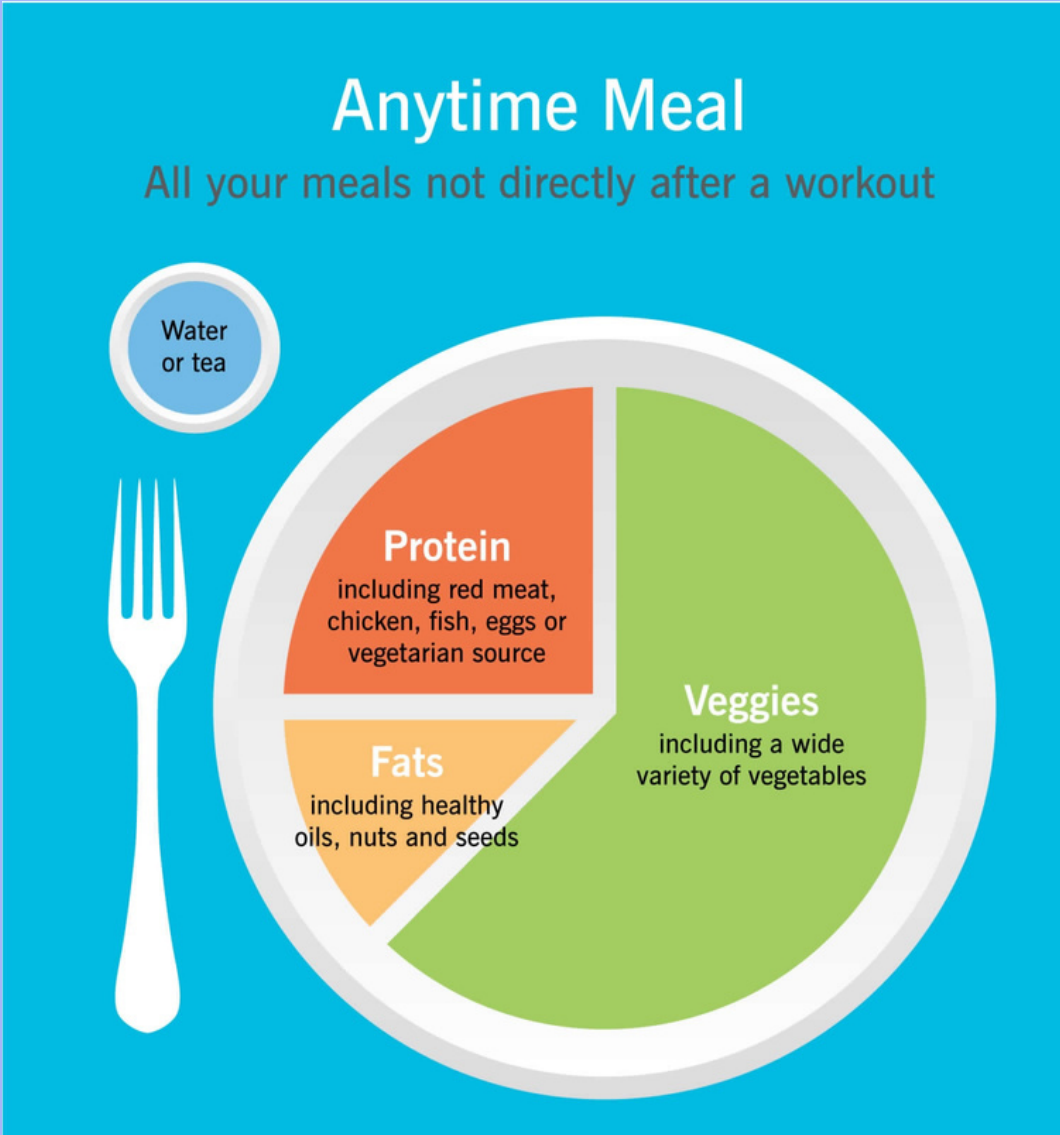
Source: Precision Nutrition

Eating Strategy #1 - Design Your Own Plate



Source: Precision Nutrition

Eating Strategy #1 - Design Your Own Plate



Source: Precision Nutrition

Eating Strategy #2 - Hand Models*

1:1	2:1		3:1		4:1		
<p>CHO PRO</p>  	<p>CHO PRO</p>  	<p>CHO PRO</p>  	<p>CHO PRO</p>   	<p><i>only appropriate during off-season or weight loss phase</i></p>	<p><i>majority of daily eating</i></p>	<p><i>majority of daily eating/ post training</i></p>	<p><i>post hard training/competition/acute CHO loading</i></p>

*Source: Metabolic Efficiency Training - Bob Seebohar

Food Label - For Packaged Food and Drinks

CITRUS SALT

Nutrition Facts

30 servings per container
Serving size 1 stick pack (6g)

Amount Per Serving
Calories 10

	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 1000mg	43%
Total Carbohydrate 2g	1%
Dietary Fiber 0g	0%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Protein 0g	0%
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 200mg	4%
Magnesium 60mg	15%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used as a basis for comparison.

1,000 mg
SODIUM

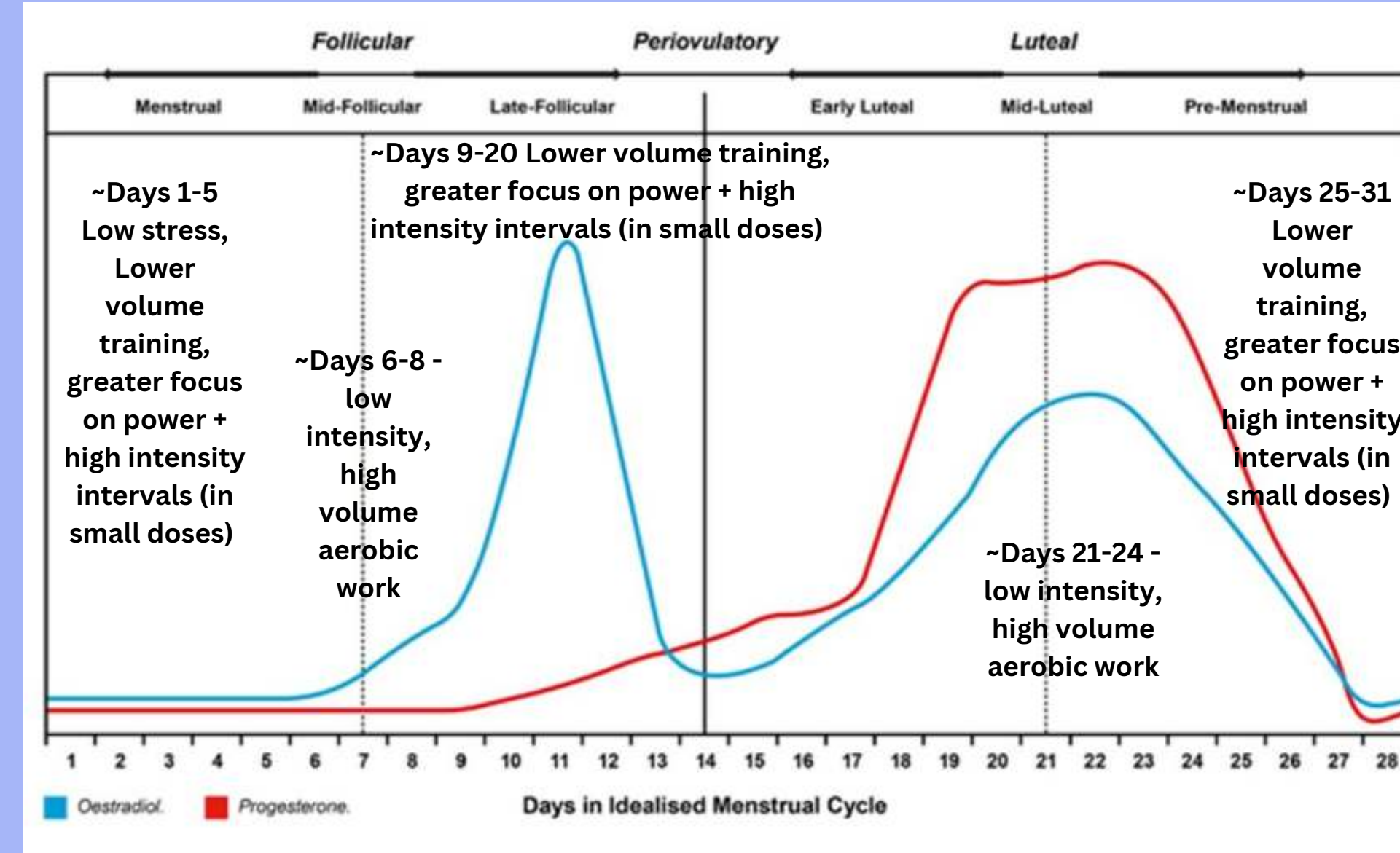
200 mg
POTASSIUM

60 mg
MAGNESIUM

INGREDIENTS:
Salt (Sodium Chloride),
Citric Acid,
Magnesium Malate,
Potassium Chloride,
Natural Flavors,
Stevia Leaf Extract.

FEMALE NUTRITION CONSIDERATIONS

Phase	Time in Cycle	Consideration
Premenstrual and Menstrual	~Day 26- Day 5	<ul style="list-style-type: none"> • increase in stress response • immune suppression • magnesium, zinc, and omega-3 fats are important during the end of this phase due to immune suppression
Follicular phase	~Day 6- 13	<ul style="list-style-type: none"> • Good time to compete • More able to absorb higher volume and intensity training • Increased pain tolerance • Shorter recovery time • Higher carbohydrate use by the body • May need more daily carbohydrates to supply higher quality training
Ovulation/ Luteal	Day ~14- 15/~Day 16-25	<ul style="list-style-type: none"> • Increase daily and post workout protein intake (leucine is important); • focus on hydration + consider sodium supplementation during exercise outside of days 15-20; • may need more carbohydrates during exercise depending long training sessions



KEY POINT: Best to document your response to your nutrition strategy frequently during training sessions (begin 3-4 months out from key events) to understand your unique needs in various conditions and intensities.



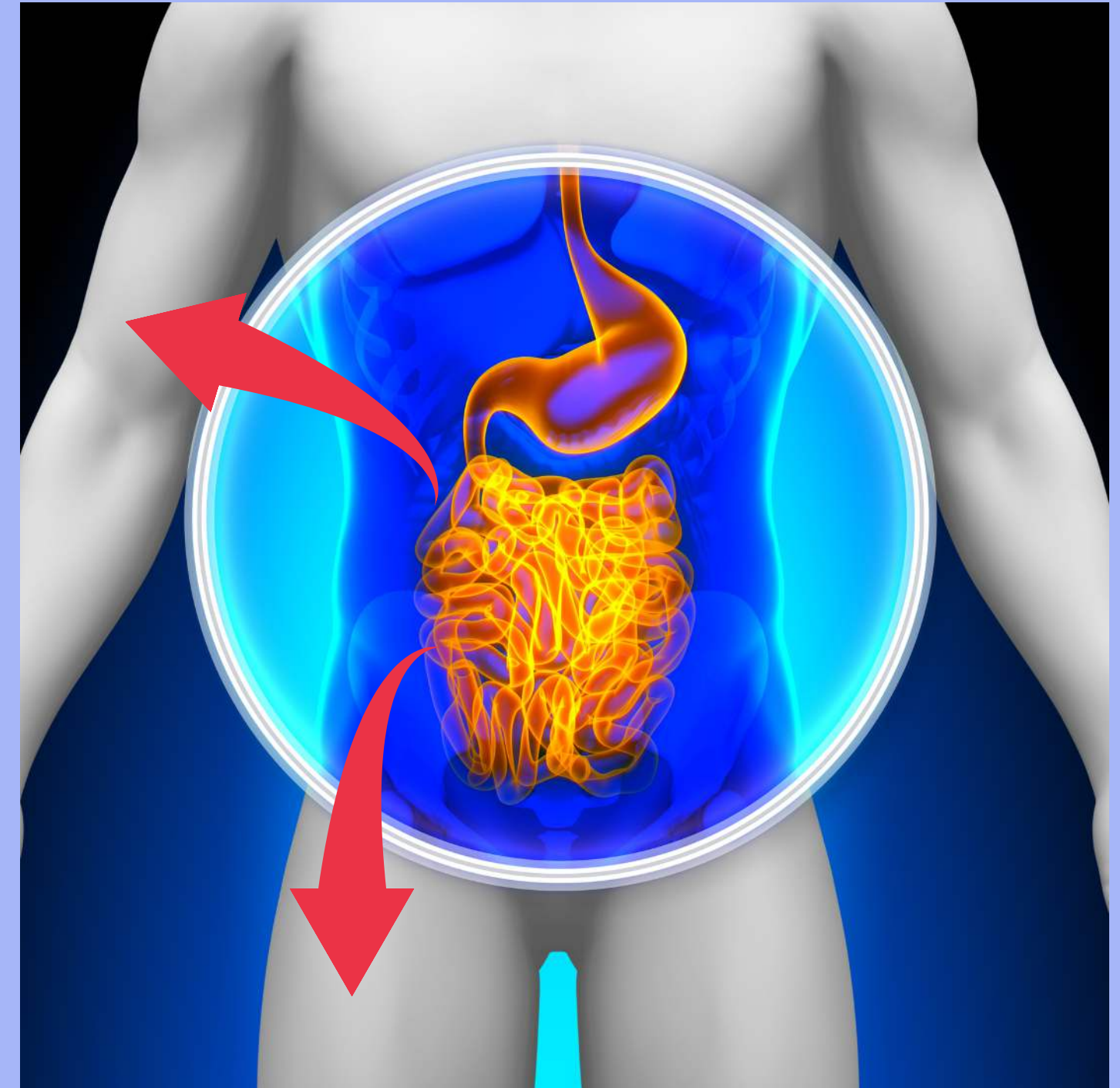
What changes, if any, would you make if any to your current daily nutrition habits?



UNDERSTANDING ENERGY USE*

Blood Shunting

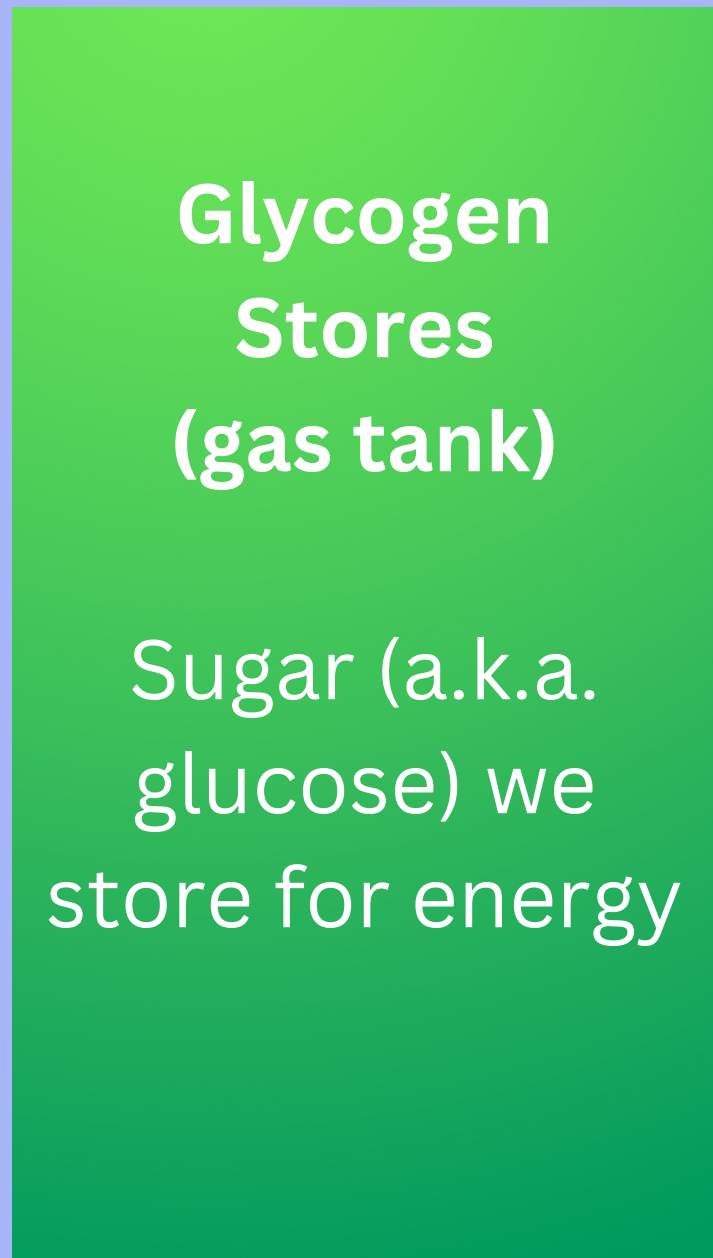
- blood is directed in the body to highest area of need
- as exercise begins more of the blood is being directed towards working muscles to deliver
 - oxygen
 - nutrients
 - heat dissipation
- higher the intensity of exercise less blood available to aid the digestive process
 - more difficult to digest consumed calories



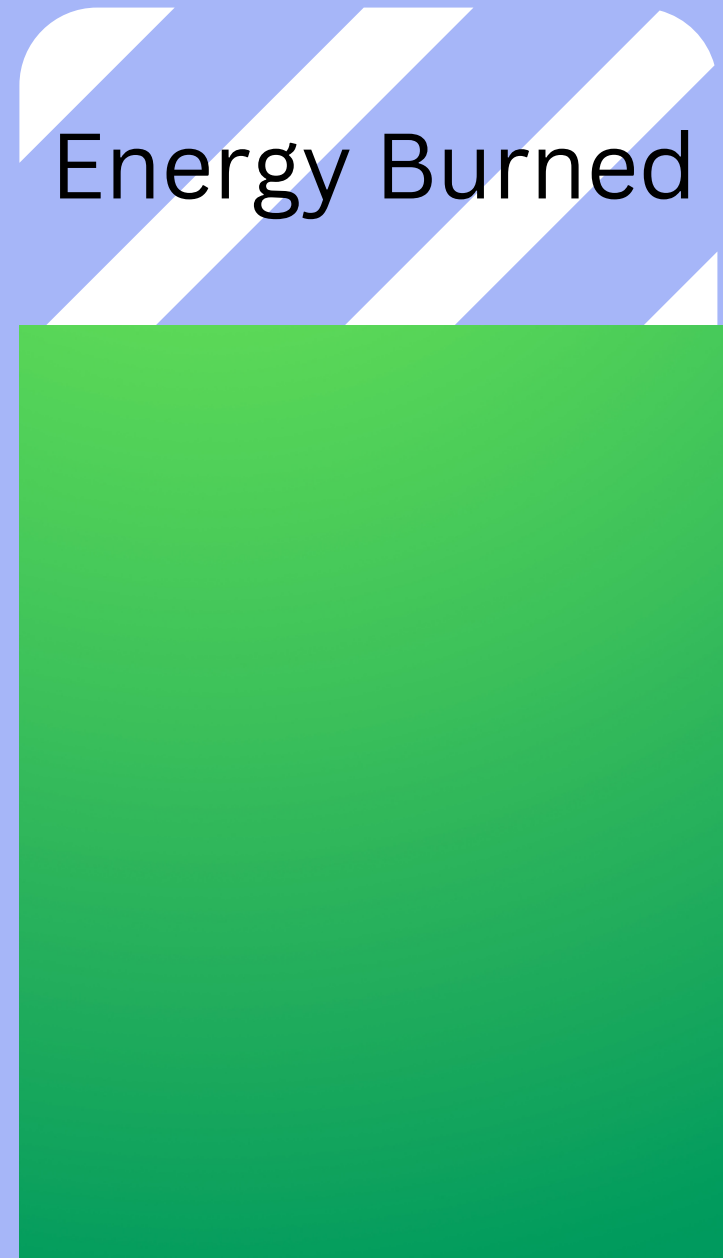
*Source: Metabolic Efficiency Training - Bob Seebohar

RECOVERY NUTRITION

(WELL TIMED AND FOCUS ON QUALITY FOODS)



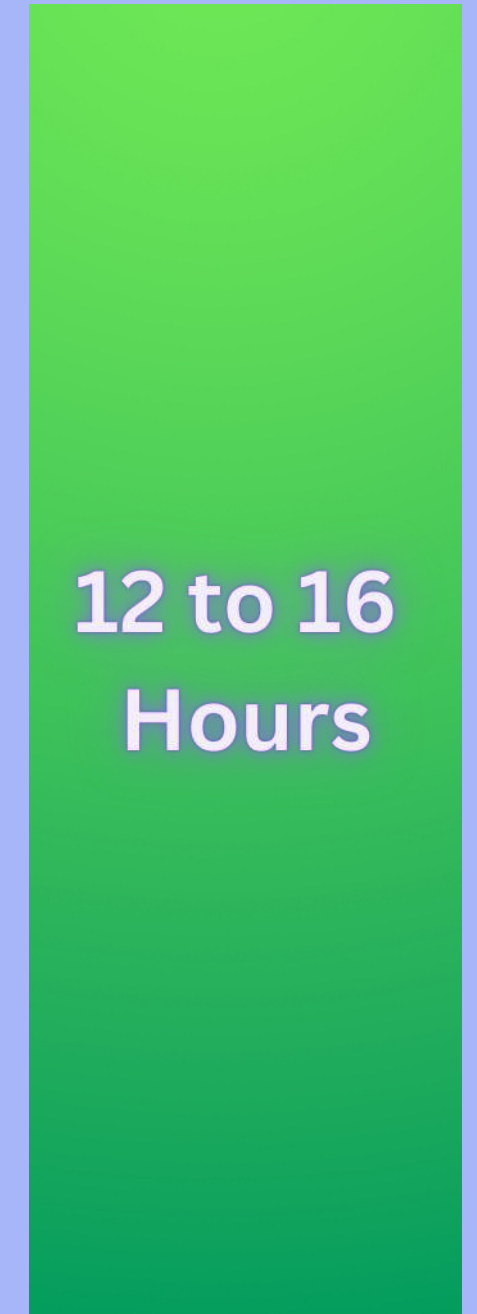
Pre (Daily)



During Training



Post Training



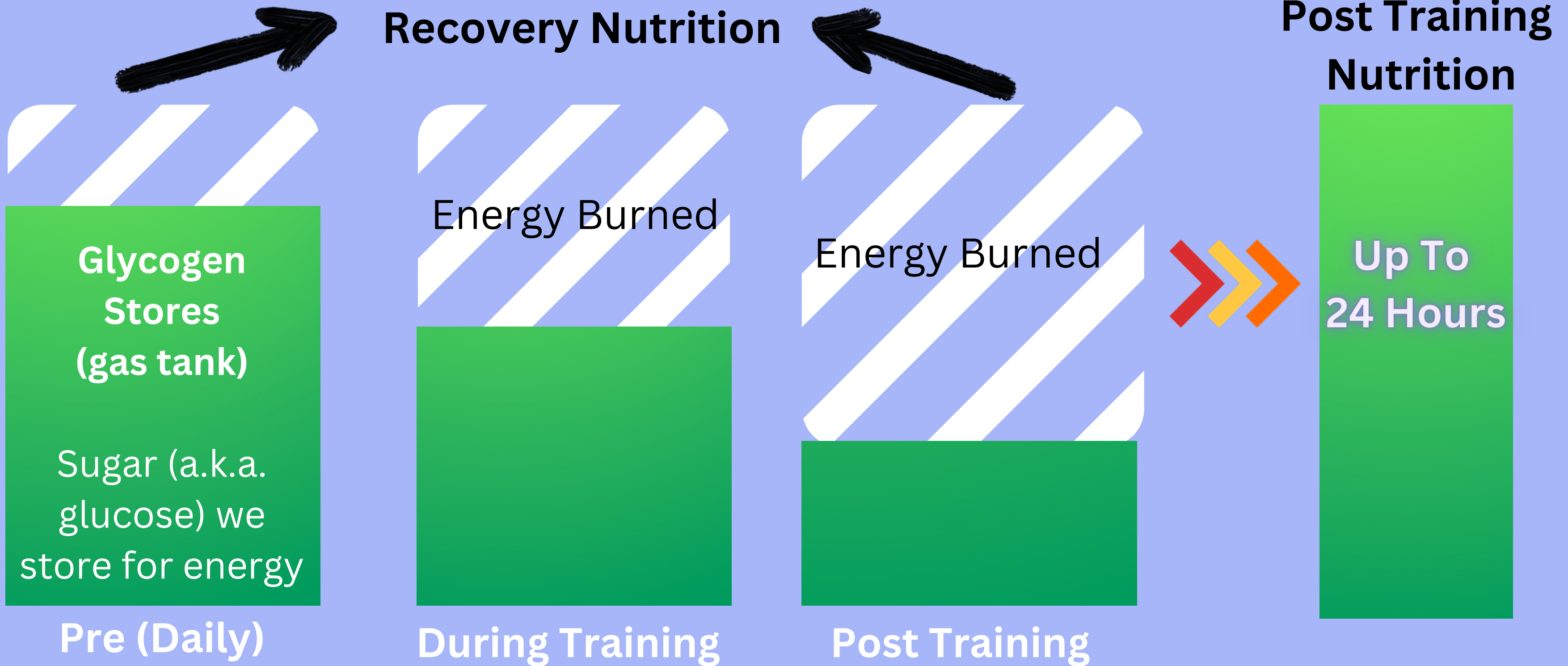
Quality Nutrition Restore

*depends of time of day for the athlete

Source: UESCA Sports Nutrition Certification

RECOVERY NUTRITION

(NO STRUCTURE AND EATING WHENEVER/WHATEVER)



*depends of time of day for the athlete

Source: UESCA Sports Nutrition Certification

NUTRIENT TIMING*

TIMING AND NUTRIENT IMPORTANCE

<p>Before 15 minutes to 3 hours (more to less food as you get closer to training)</p>	<p>During >45-60 minutes</p>	<p>After 0-15 minutes Then 2-4 hour intervals that day</p>
<p>Fluid Electrolytes Carbohydrates Proteins Fats</p>	<p>Fluid Electrolytes Carbohydrates Proteins Fats</p>	<p>Fluid Carbohydrates Proteins Electrolytes Fats</p>

*All 3 impact each other

PLAN YOUR INTAKE BEFORE TRAINING

Nutrient	Considerations	Options
<p>Fluid</p>	<ul style="list-style-type: none"> • Did you just wake up? • Have you had 4-6 hours to rehydrate after previous session? 	<p style="text-align: center;">Water</p> <ul style="list-style-type: none"> • ~500 - 750ml (<30 mins before) • Total daily consumption = 0.033 x body weight (kg)
<p>Carbohydrates (CHO)</p>	<ul style="list-style-type: none"> • What are your goals for the training session (i.e., lower intensity endurance or high intensity intervals)? • What type (i.e., swim, bike, run, strength) and length the session? • Are you training more than once per day? • Have you consumed adequate carbs before training (i.e., morning vs daytime/evening training)? • Are you male or female? 	<ul style="list-style-type: none"> • Nothing or, • Light snack - if higher volume day 2x sessions, long >3hr sessions) <ul style="list-style-type: none"> ◦ 20-40 grams (palmful)
<p>Protein (PRO)</p>	<ul style="list-style-type: none"> • What is the length and intensity of the session? • Are you over 40 years old? 	<ul style="list-style-type: none"> • Nothing or, • Light snack - if higher volume day 2x sessions, long >3hr sessions) <ul style="list-style-type: none"> ◦ 20-30 grams (palmful)
<p>Fat</p>	<ul style="list-style-type: none"> • Do you need to be more efficient at using carbohydrate or fat as an energy source for the session? 	<ul style="list-style-type: none"> • Minimal (1-2 servings) • Banana + 1-2 tbsp of nut butter <ul style="list-style-type: none"> ◦ Thumb sized is one serving
<p>Electrolytes</p>	<ul style="list-style-type: none"> • Are you going to eat something? • What length and intensity of the session? 	<p>Depends on session length:</p> <p>45-60 min - 500 mg of sodium, 100 mg potassium chloride, 60mg magnesium malate</p> <p>> 60 min and/or high intensity - ~500-1000 mg of sodium, 200 mg potassium chloride, 60mg magnesium malate per hr</p>



What changes, if any, would you make if any to your current nutrition habits before training?



PLAN YOUR INTAKE DURING TRAINING

Nutrient	Considerations	Options
<p>Fluid</p>	<ul style="list-style-type: none"> • Is your session longer than 60 minutes? • Are you training in heat/humidity? • Do you chew gum? 	<p><i>"It Depends"</i></p> <ul style="list-style-type: none"> • Water ~1 ml per lb of body weight every 15 minutes • Adjust for: Temperature/humidity, intensity, duration (length), sweat rate
<p>Carbohydrates (CHO)</p>	<ul style="list-style-type: none"> • What are your goals for the training session (i.e., lower intensity endurance or high intensity intervals)? • What type (i.e., swim, bike, run, strength) and length the session? 	<ul style="list-style-type: none"> • <60 minutes nothing • >75 minutes - 2.5hr minutes 30-60 grams per hour • >2.5hr 60-90 grams per hour • If going into session fasted you may need have 20-60 grams per hour from the start • e.g., Sports nutrition product
<p>Protein (PRO)</p>	<ul style="list-style-type: none"> • What is the type, length, and intensity of the session? 	<ul style="list-style-type: none"> • <3-4 hours usually none: if you do add any - BCAA/EAA 10-20 grams/hr with carbohydrate • Practice many times in training • Turkey and cucumber wrap
<p>Fat</p>	<ul style="list-style-type: none"> • Are you an ultra athlete competing at lower intensities and need more calories per hour? 	<ul style="list-style-type: none"> • Usually none unless ultra training >4hrs • Choose wisely (fats you can digest and practice consuming many times in training) • Nut butters
<p>Electrolytes</p>	<ul style="list-style-type: none"> • Is your session longer than 60 minutes? • Are you training in heat/humidity? • Do you have a high salt daily nutrition plan? • Are you a heavy sweater? 	<p>Depends on session length, intensity, and conditions: > 60 min and/or high intensity - ~500-2000 mg of sodium, 200 mg potassium chloride, 60mg magnesium malate per hour</p>

PLAN YOUR INTAKE DURING TRAINING

Sources of Energy (per hour)

- Carbohydrate 30-90 grams (120-360 cal)
 - Can even be as high as 120g/hr (professionals)
 - Highest intake on the bike
 - 25-50% lower during run (due to more GI jostling)
 - Stay away from dry foods or those that take too much time to access
 - If taking in real food (e.g., homemade bars, watermelon) check nutrient/calorie content so you understand it's contribution to your energy replacement

- Glucose or Maltodextrin + fructose + blend appears to work well for absorption
 - 1:0.5 or 1:1 glucose or maltodextrin to fructose ratios
 - Superstarch (UCan)



PLAN YOUR INTAKE DURING TRAINING

Recommendations chart

Carbohydrate intake **during** exercise



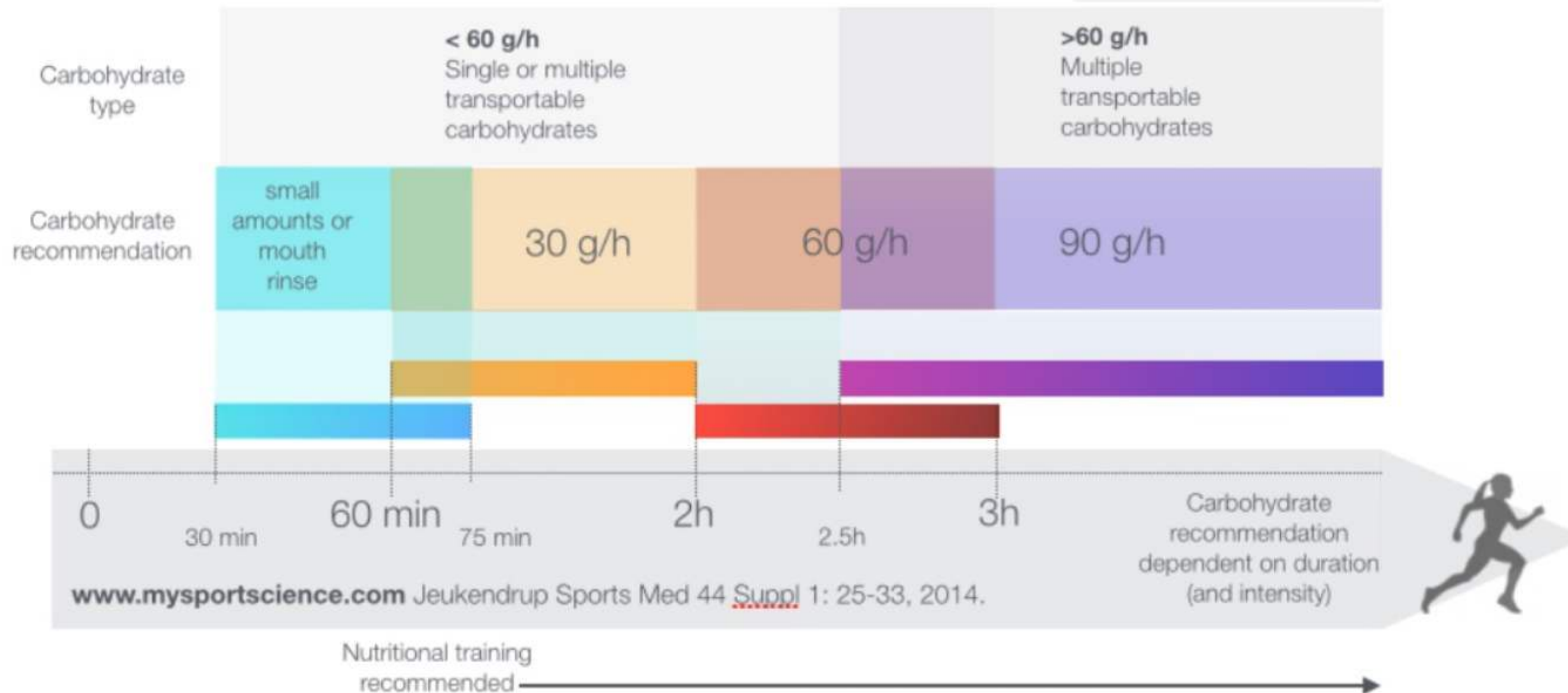
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What changes, if any, would you make if any to your current nutrition habits during training?



MANAGING NUTRITION CHALLENGES

What Are We Trying to Achieve With Our Nutrition Strategy

- Meet energy demands
- Avoid GI (i.e., gut) distress
- Avoid low blood sugar (bonking)

*Rate of Calorie Absorption is intensity dependant

- Harder the effort the less you can absorb
- As intensity increases the easier your fluids and calories need to be to digest
- Small bites and small sips



MANAGING NUTRITION CHALLENGES

Most Nutrition Related Problems are a consequence of TOO x 3:

1. TOO MUCH INTAKE

- Trying to ingest too many calories
- Too many calories at once and/or too often

2. TOO MUCH INTENSITY

- Intensity is too high affecting absorption

3. TOO LITTLE INTAKE

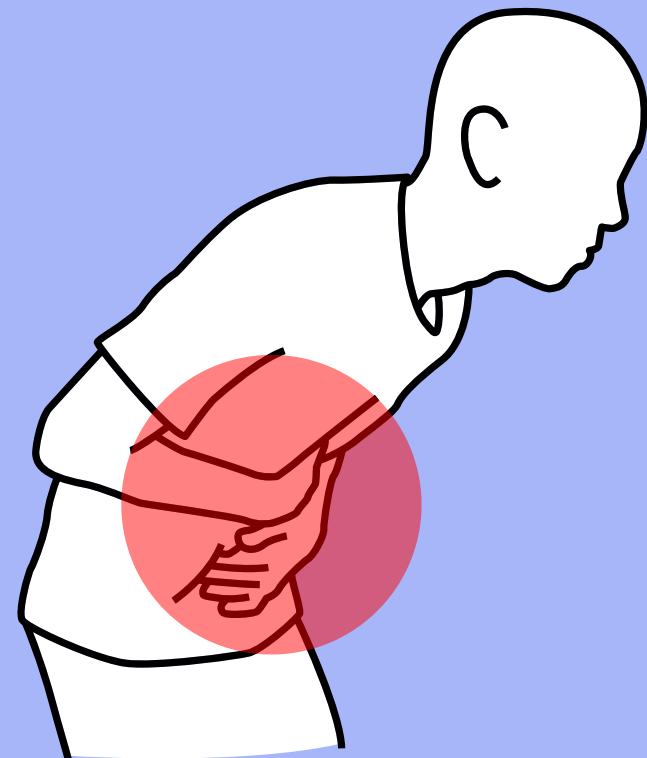
- Too little calorie intake



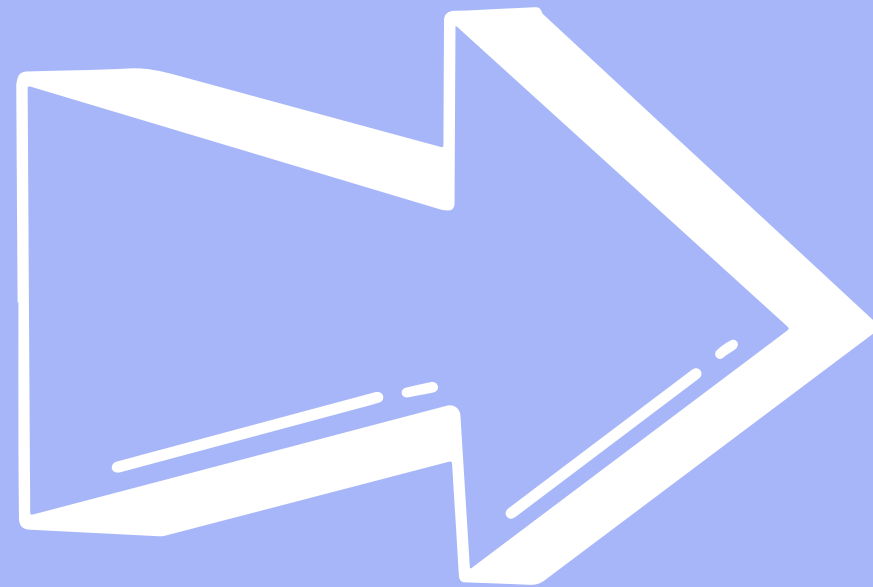
MANAGING NUTRITION CHALLENGES

If you experience:

- abdominal cramping
- stomach upset
- diarrhea
- GI distress



**Possible Cause:
TOO MUCH INTAKE**



POSSIBLE SOLUTION

- Decrease or stop carbohydrate intake
- Swish and spit
- Decrease intensity until it subsides
- Smaller sips and bites
 - chew solids completely before swallowing
 - take with water can help absorption (every 5-15 minutes)

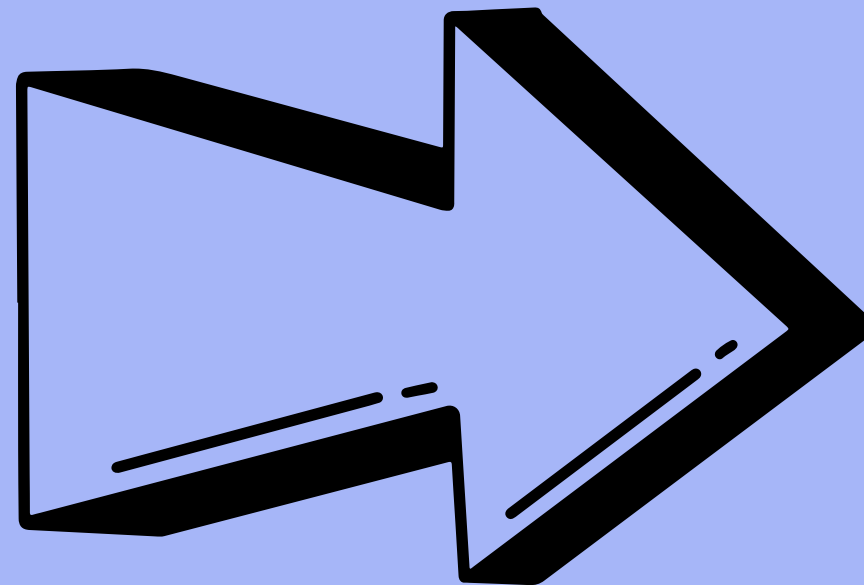
MANAGING NUTRITION CHALLENGES

If You Experience:

- Weakness/Chills
- Fatigue
- Excessive Negativity












Possible Cause: TOO LITTLE INTAKE



POSSIBLE SOLUTION

- Increase fluid, calorie, and electrolyte intake
 - e.g., 500ml water +300-600 mg sodium, 30-60 grams of carbs
 - small sip increments (every 5-10 minutes)

PLAN YOUR INTAKE AFTER TRAINING

Nutrient	Considerations	Options
Fluid	<ul style="list-style-type: none"> How much did you consume before and during training? 	<ul style="list-style-type: none"> Water ~500ml for every pound lost or ~1000 ml per kg of body weight lost <ul style="list-style-type: none"> compared to pre training body weight
Carbohydrates (CHO)	<ul style="list-style-type: none"> What are your performance, nutrition, and health goals? 	<ul style="list-style-type: none"> 1:1 (carb to protein) or 2:1 meal/snack <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">CHO </div> <div style="text-align: center;">PRO </div> <div style="text-align: center;">CHO </div> <div style="text-align: center;">PRO </div> </div>
Protein (PRO)	<ul style="list-style-type: none"> What are your performance, nutrition, and health goals? 	<ul style="list-style-type: none"> 1:1 (carb to protein) or 2:1 meal/snack <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">CHO </div> <div style="text-align: center;">PRO </div> <div style="text-align: center;">CHO </div> <div style="text-align: center;">PRO </div> </div>
Fat	<ul style="list-style-type: none"> What are your performance, nutrition, and health goals? 	<ul style="list-style-type: none"> > 2 hours after training add 1 to 2 thumb sized portions with meal/snack Nut butter, 1/2 avocado, olive oil, almonds, etc. <div style="text-align: right;">  <p>A portion of fats = 1 thumb</p> </div>
Electrolytes	<ul style="list-style-type: none"> How much did you consume before and during training? Do you need to rehydrate quickly? 	<p>Depends on session length:</p> <ul style="list-style-type: none"> ~ 500-1000 mg of sodium, 100-200 mg potassium chloride/citrate, 30-60mg magnesium malate sodium assists with fluid absorption in the body



What changes, if any, would you make if any to your current nutrition habits after training?

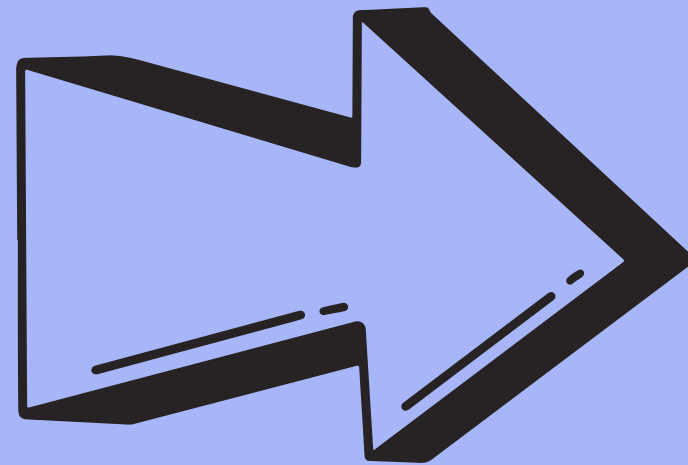


RACE TAPER NUTRITION

(1 WEEK PRIOR TO YOUR RACE)

Considerations

- Taper nutrition is a delicate and individual matter
- Increased stress = increased digestive challenges
 - especially in the day before and in the hours before a competition



ACTION STEPS

Consideration	Action Step
Foods You Know	<ul style="list-style-type: none"> • Stick to foods you know digest well for you the week of the race (nothing new race week)
Amount of Food And Water	<ul style="list-style-type: none"> • No need to eat or drink more than normal this week as you are naturally expending less due to low training volume • May need to add electrolytes to fluid/water (1/4 tsp salt/500ml of water)
Carbohydrate Loading	<ul style="list-style-type: none"> • No need for more than 24-48 hours of carbohydrate loading <ul style="list-style-type: none"> ○ May need to decrease fiber ○ May need to decrease fat (macronutrient displacement)

CUSTOMIZE THROUGH DOCUMENTATION

Key Areas To Document:

- What did I consume during the session and at which time intervals?
- How much fluid (ml or litres)?
- How many calories (fluid and solid calories)?
- How much electrolytes (Sodium, Magnesium, Potassium)?
- What did you take in (which products)?
- Temperature + wind conditions during ride.
- Intensity of the session (e.g., smart watch data) and how you felt.

4.5 Hour Ride

[REDACTED] SUN June 26, 2022

Legs felt a bit tired during the warmup but settled in as the workout progressed. The zone 3 hill and out and back felt sustainable and I felt good throughout. Tried to stay consistent in my zone 3 and never felt that I wasn't able to maintain it.

[REDACTED] SUN June 26, 2022

Hydration:

3 bottles of skratch each containing 400cal.
Drank roughly every 15 to 20min or when feeling thirsty.

Nutrition:

3 pb and jelly rice cakes. Each 150cal
Ate 1 when we got to lumsden hill. 2nd one halfway through the hill workout. 3rd one on the last climb before heading home.

[REDACTED] SUN June 26, 2022

1650 total cal intake
2130ml total hydration intake

[REDACTED] SUN June 26, 2022

9c at start of ride and getting to 20c by the end

CUSTOMIZE THROUGH DOCUMENTATION:

SAMPLE HYDRATION NUTRITION JOURNAL

Session:

- 2 hour ride 6:30-8:30am Saturday Morning
- 4 x 15 minute Z3 tempo intervals with 10 minutes easy recovery between intervals

Time	Fluid Description	Fluid Amount (ml)	Solid Description	Solid Cals	Sodium mg	Magnesium mg	Potassium mg	Temp (C)	Wind	Humidity	Effort Scale (1 to 10) 1=very easy, 10 max effort	Calories Expended	How did I feel?
Pre - Session	water	1000	45 min prior to ride - 1 Scoop of Whey protein powder (130 cals), Banana (100 cals), 1 packet of LMNT (10 cals)	240	1000	60	200	Indoor (20C)	N/A	N/A			Good. Well rested
Hour 1	water	850									4	650	Consistent energy and power
Hour 2	water	850	1 scoop of Skratch Hydration Mix	80	380	39	39				6	750	Legs started to feel a little heavy in the last 20 minutes of the ride.
Totals During		2700		320	1380	99	239				5	1400	Maintain power targets and consistent effort throughout. Feel good!

- Additional Information for further insight:
 - Pre and post session body weight to measure fluid loss?
 - Any cramping, GI distress, nausea, pain, dizziness, chills, etc.?
 - Female - What day in your cycle was this session completed?
 - Want to use what the race course will provide for hydration? Practice with it in training!

Thank you!

Let me know if you have questions or clarifications.

Need some help? Contact me here...



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