



PERFORMANCE NUTRITION: FUELING LOGISTICS

PREPARING STUDENT-ATHLETES TO CONQUER NUTRITION BARRIERS

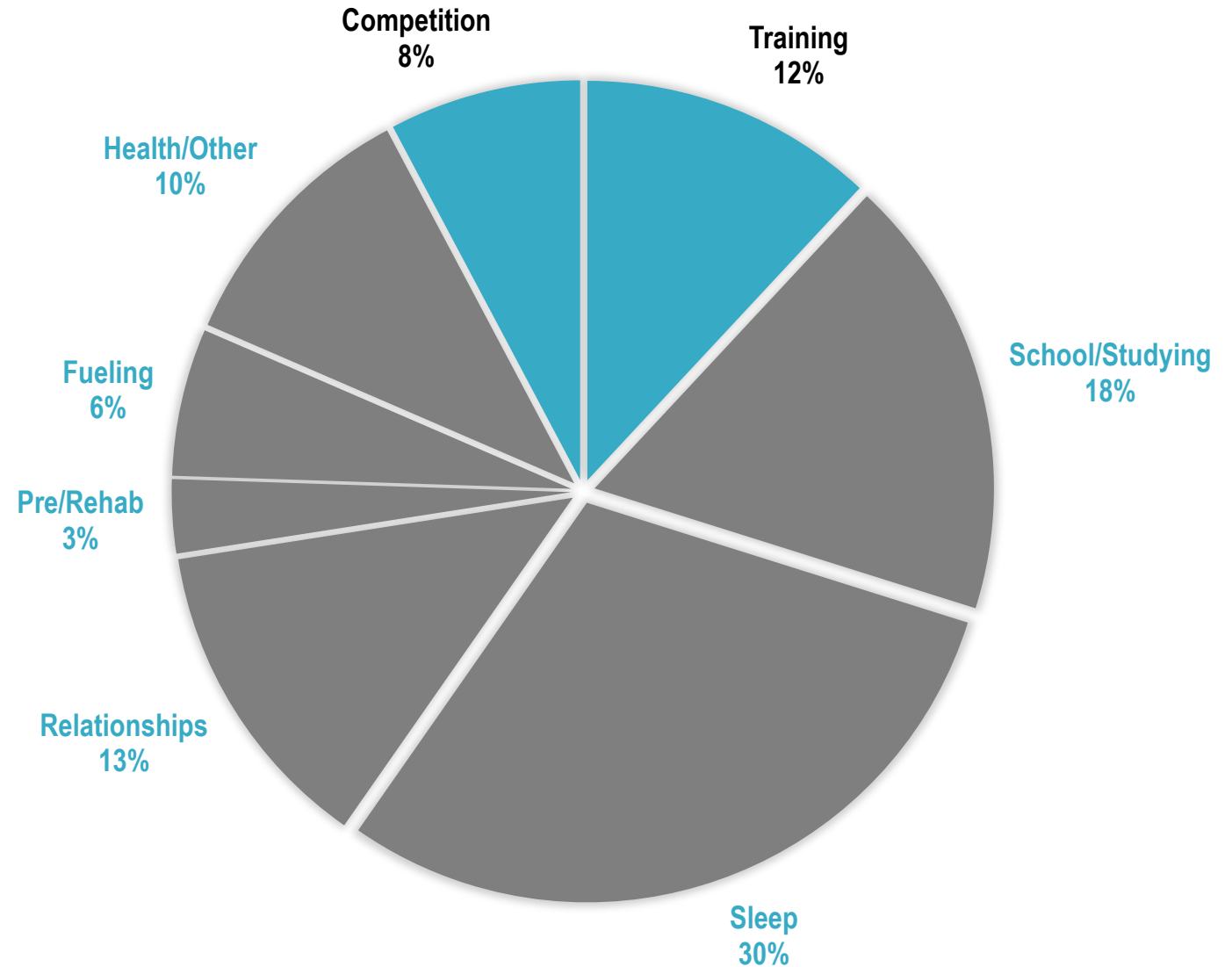
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Sports Dietitians

Impact Today

- Identify barriers to adequate fueling for student athletes
- Provide fueling strategies for building a supportive nutrition environment at home, school and during travel.
- Discuss digestive distress for athletes and how to manage impact on performance
- Identify most common nutrition deficiencies impacting student-athletes and proactive nutrition strategies to avoid them

Student- Athlete Time

Managing energy levels is a daily priority for student-athletes to stay healthy & to perform in the classroom as well as in your sport!



IDENTIFYING BARRIERS

*INSERT POLL

What impacts your ability to fuel for training and competition?

- Not enough time to make food
- Finding healthy options on the road is tough
- I don't know how to meal prep
- I don't always feel hungry when I need to eat

Fueling Barriers



Time



Money



Travel



Motivation



Low Appetite



Cooking
Skills/Access
to Food

AWARENESS PROCEEDS CHANGE

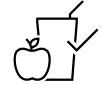
Fuel + Train Schedule



6:00 AM – Wake up



6:30 AM – **Breakfast:** Eggs with spinach and cheese, wheat toast with PB, fruit + water



9:00 AM – **Snack:** applesauce + trail mix



12:00 PM – **Lunch:** Turkey and cheese sandwich on whole wheat bagel (lettuce, tomato, pickle), crackers, carrots + hummus + 1 fruit + milk



3:00 PM – **Pre-practice Snack:** Clif bar + banana + water



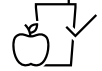
4:00-6:00 PM – **PRACTICE/TRAIN**



6:15 PM – **Recovery:** protein shake/bar



7:00 PM– **Dinner:** 2 fist of rice/pasta/potato + 2 palms of meat + veggie + fruit + milk



9:30 PM - **Snack:** Yogurt parfait (yogurt, granola and berries)



10:30 PM – **SLEEP**

Fighting Time



Map out your week to determine appointments, practices, games, etc. that require quick/easy meals

3 meals + 3-5 snacks per day

Write out your Fuel Plan

Pregame/practice meal: 3-4 hours before go time
Fuel boosting snack: ~30 minutes before go time
Recovery snack: within 30 minutes after training/competition
Recovery meal: within 2 hours after training/competition

Set alarms for snacks

Eat every 3-4 hours

Designate time on the weekend to plan ahead for your week

Meal prepping for the week
Restocking emergency snacks in the pantry
Replenish backpack or gym bag snacks
Prep freezer meals to reheat



Back to Basics: Pantry Essentials

Grains/Starches		Fats	
Oats/Cereals	Rice	Avocado	Nut Butters
Bread	Crackers	Olive Oil	Seeds
Pasta	Pretzels	Oil Based Dressings	Trail Mix
Potatoes	Beans	Dairy Products	Meats
Protein		Fruits & Vegetables	
Frozen/Pre-Cut	Dairy Products	Fresh	100% Juice
Meats	Eggs	Frozen	Canned
Deli Meat	Beans	<i>Tip: Shopping seasonally to save \$\$</i>	
Tuna	Legumes		

Doesn't have to be fancy to fuel properly!

Nourished Prep Tips

Backpack Snack Pack

- 5 apple sauce squeezes
- 5 Nature Valley Protein Bars

→ Fuel Boosting & Recovery Snacks ready for the week!

Meal Prep Smoothie Bags

- ¼ c rolled oats*
 - ½ banana*
 - ½ c frozen fruit*
 - ¼ c frozen spinach*
 - Or a pinch of leaves fresh!*
 - 2 tbsp PB powder*
 - ¼ avocado*
- * Place ingredients in Sandwich bags
- Add preferred milk when ready & blend!
- Optional: Greek yogurt, safe protein powder*, chia/flax seeds*

Grab & Go Breakfast

Overnight Oats (individual meal)

- 2/3 c rolled oats
 - 1 spoon chia seeds
 - 1 c fairlife choc. Milk
 - 2 tbsp nut butter
- 3-5 servings in individual containers
- + Pair with banana or other fruit for full meal
- Eat for up to a week

Purposeful Snacks

Pick 1 Carb

Berries



Banana



Apple



Bread



English Muffin



Cereal



Pretzels



Popcorn



Carrots



Granola Bar



+

Yogurt Cup



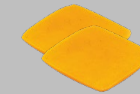
Peanut Butter



Turkey Slices



Cheese Slices



Milk/Protein Shake



Hummus



Trail Mix



Cheese Stick



Cottage Cheese



Protein Bar



Pick 1 Protein

ALL SNACKS = CARB + PROTEIN

Carb = Fuel & Energy | Protein = Repair & Build

TRAVEL NUTRITION

***INSERT POLL**

- What percentage of your season is spent on the 'road'?
 - 0%, I only compete at home
 - 10%, I travel once per season
 - 50%, about half my games away from home
 - 100%, I only compete away from home

Plan Ahead: Questions to Keep in Mind

- Where are you going?
- How far away is the destination?
- How long will you be on the road?
- What resources are available to you?
- Does the team provide meals/snacks?



Fail to Prepare, Prepare to Fail

Commit to a Fuel Plan

Travel Time Rules of Thumb

- Time on the road 2-4 hours:** plan 1-2 snacks for the drive, eat a meal right before you go or when you arrive
- Time on the road 4+ hours:** plan 1 snack and 1 meal for every 4 hours, eat a meal before you leave
- Meal or Snack within every 3-4 hours
- Maintain routine despite change of environment



Consume Typical Foods & Portions

- Traveling is not a time to splurge/overeating just because you're eating out!
- Bring routine snacks and supplements with you
- Stick to familiar foods
- Maintain normal caffeine routine



Determine Your Hydration Strategy

- Bring an extra water bottle, sport drink, and recovery drink to cover all component of fueling
- Hydrate on a schedule
- Remember your electrolytes
- Don't limit fluid to prevent using the restroom



Performance Driven Travel Snacks

Long Lasting Fuel <i>Incorporate throughout the day</i>	Immediate Fuel <i>Pre/During competition</i>	Performance Proteins <i>Incorporate throughout the day & for Recovery Snack</i>
Fruit and Nut bars	Applesauce/ Go-Go squeezes	Beef Jerky
Trail Mix	Granola Bars	Dry-Roasted Edamame
Hummus and crackers	Honey Stinger Waffles/Chews	Shelf-Stable Protein Shakes
PB & J sandwiches	Pretzels/Crackers	Tuna Packets
Oatmeal cups	Fruits/100% fruit juice	Protein Powder (NSF certified)
Fresh Fruits (apples, bananas, clementine, grapes)	Sports Drinks	Peanut Butter Packers

Alert & Adapt!

Gas Station Meals

- **Breakfast:** Breakfast bar + Greek yogurt + fresh fruit + OJ
- **Mid-Day Meal:** Deli Sandwich + pretzels + apple + nut butter packet
- **Fuel Snack:** Apple sauce squeeze, granola bar, fruit
- **Recovery:** Gatorade Recovery Bars, CorePower/Fairlife Shakes



Food Safety Awareness

- Avoid unfamiliar foods on the road
- Ensure food is hot & cold
 - Travel with a food thermometer!
- Avoid raw foods (ex: sushi) unless trusted food service source
- Refrigerate perishable food within 2 hours
 - Check mini fridges!



Dietary Restrictions

Gluten Free Support

- 2 bags microwave rice
- 1 lg bag GF granola
- 1 box Bobo's Bars

App: FindMeGlutenFree

- Talk your coaches
- Overprepare
- Consider bringing your own appliances



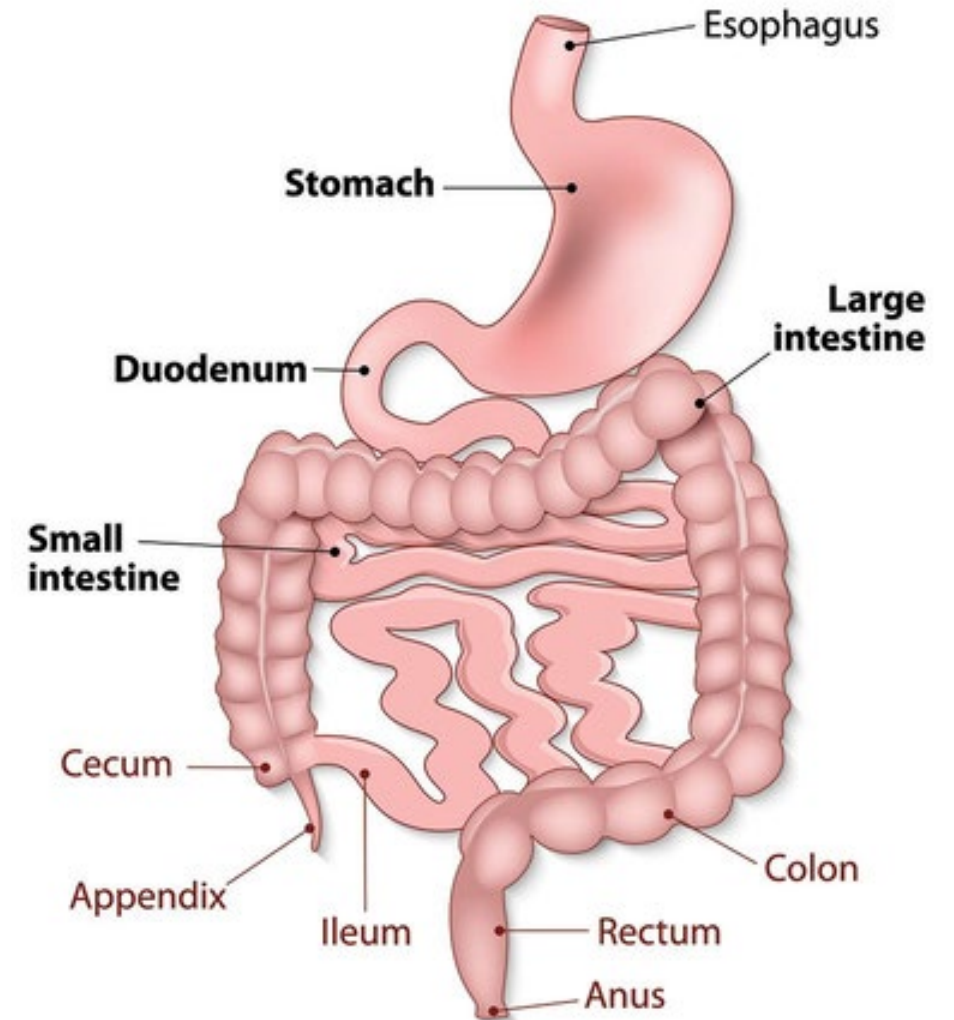
DIGESTIVE DISTRESS FOR THE ATHLETE

***INSERT POLL**

- Have you ever experienced digestive distress when training & competing?
(loss of appetite, constipation, bloating, gas)
 - Yes
 - No

GI Tract

- **GI Tract: MUSCLES**
 - *Muscles must be trained!*
- **Functions:** absorption of water and nutrients → HYDRATION & ENERGY → **PERFORMANCE**
- **Factors causing GI Distress:**
 - Physiological
 - Stress causes muscles these to slow down
 - Mechanical
 - Breakfast at the same time gets muscles moving
 - Nutritional
 - High fat meal takes longer for muscles to work



Athlete Appetite Disruption

The athlete's appetite is often disrupted!

→ **Recognize factors impacting appetite**

- Stress, training intensity, medications, supplementation

→ **Identify Hunger & Fullness Cues**

- Tough practice? High intensity competition?

→ **Train your muscles!**

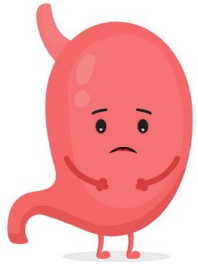
- Start small & consistent

→ **Discuss times to override with Sports RD**



Next Steps

Common Symptoms

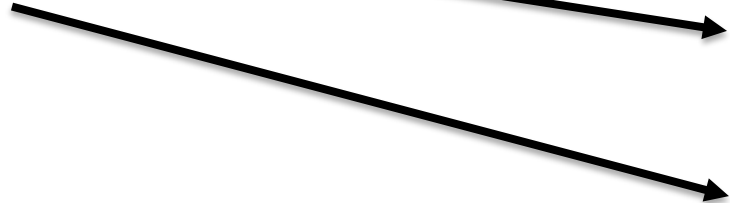


Changes in Appetite

Constipation/Diarrhea

Nausea, Gas, Bloating

Food Cravings



Practical Solutions

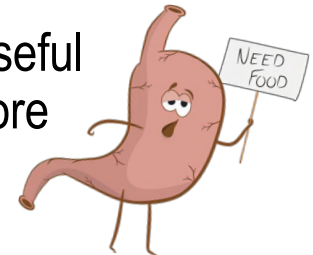
Encourage liquid calories
(Smoothies/Shakes) & eat on the clock

Hydrate, Hydrate, Hydrate;
Add an electrolyte beverage



Keep intake simple and consistent.
Focus on familiar!

Honor your hunger cues! Purposeful
snacks first – you likely need more
energy.



Symptoms Affecting Your Daily Health & Performance? → Individualized Sports RD Support

NUTRITION DEFICIENCIES

***INSERT POLL**

- Do you get nutrition lab work done at least once a year?
 - Yes
 - No

Common Deficiencies Among Athletes

Most Common Deficiencies

- **Iron**
- **Vitamin D**
- Calcium
- Magnesium
- Zinc
- Potassium

Root Causes

- Poor Gut Health
- Fad Diets
- Low Energy Availability
- Genetics
- Lack of Variety



Iron

Function: Mineral Allows Your Body Access to Energy → Health & Performance

Food First



Enriched Cereals

Red meats

Poultry

Pork

Tuna

Tofu

Lentils

Oatmeal

Beans

Spinach



↑ Iron Need

- Female athletes
- Growing athletes
- Dieting athletes
- Vegetarian athletes
- Endurance athletes
- Genetics

Signs/Symptoms

- Fatigue & unexplained exhaustion
- Irritability, negative mood, low motivation
- Decreased aerobic performance
- Weak muscular performance
- Sick more often than normal
- Appetite suppression
- Brittle hair and nails
- Feeling cold abnormally

Next Steps:

Reactive:

- Schedule with Sports RD for individual support.

Proactive

- Labs: Request **FERRITIN** 8 weeks before season starts, annually

Vitamin D

Function: Hormone for Bone, Muscle and Immune Function → Health & Performance

Food First



Fish

Egg

Mushrooms



Fortified Cereals



Fortified OJ



Fortified Dairy Milk

Fortified Soy Milk

↑ Vit D Need

- MN ATHLETE
 - Especially Winter!
- Indoor/Winter Sport
- Growing athletes
- Limited sun effects
- Genetics

Signs/Symptoms

- Low bone mineral density
- Stress fractures
- Unexplained fatigue
- Unexplained muscle and joint pain
- Frequent illness

Next Steps:

Reactive:

- Schedule with Sports RD for individual support.

Proactive

- Labs: Request **25OHD** 8 weeks before season starts, annually



SUNSHINE

Only April-October in MN!

Keep In Mind The Athlete's Plates

EASY TRAINING / WEIGHT MANAGEMENT:

FATS
1 Teaspoon

Whole Grains
Pasta
Rice
Potatoes
Cereals
Breads
Legumes

Lean Protein
Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu, Tempeh)
Legumes/Nuts

Vegetables & Fruits
Raw Veggies
Cooked Veggies
Veggie Soups
Fresh Fruit

FLAVORS
Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup

Water
Dairy/Nondairy
Beverages
Diluted Juice
Coffee
Tea

HARD TRAINING / RACE DAY:

FATS
2 Tablespoons

Grains
Pasta
Rice
Potatoes
Cereals
Breads

Lean Protein
Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu, Tempeh)
Legumes/Nuts

Vegetables
Cooked Veggies
Veggie Soups
Raw Veggies

FLAVORS
Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup

Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages

Fresh Fruit
Stewed Fruit
Dried Fruit

Avocado
Oils
Nuts
Seeds
Cheese
Butter

Avocado
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Avocado
Oils
Nuts
Seeds
Cheese
Butter

Talk with a Sports RD before starting supplements!

Action Items

WRITE 1 METHOD TO
OVERCOMING A COMMON
NUTRITION BARRIER

**Make a weekly fuel
schedule to help plan
meals and snacks.**

LIST 1 THING YOU CAN
DO IF YOU LOSE YOUR
APPETITE

Focus on fluid energy

RECALL 2 NUTRITION
LABS TO TEST
PROACTIVELY FOR

**Iron: Ferritin
Vitamin D: 25OHD**

QUESTIONS

Ready to Empower Your Game Through Nutrition?

Call:

952-456-7650

Email:

SportsNutrition@TrainingHAUS.com

Website:

TrainingHAUS.com/Sports-Nutrition

We are available in-person & virtually!



COMING UP NEXT!

Topic 4 – NSCA Recruiting

December 21, 2022 | 6:30 – 7:30 PM

Topic 5 – Sports Psychology

January 18, 2023 | 6:30 – 7:30 PM

Please register at TCOmn.com/EducateToElevate



THANK YOU!

Reach out with any questions:
SportsNutrition@TrainingHAUS.com