

Nutrition For Swimmers

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Key Topics to Consider for Athletics

Importance of Good Nutrition



Macronutrients



Meal Timing for Activity



Hydration

My Personal Interests/Experiences in Fueling for Sport



Why does Good Nutrition Matter in Swimming?

- ▶ Food is **FUEL** for practice and games
- ▶ Allow to **PERFORM** and **PRACTICE** at **PEAK**
- ▶ Reduces risk of **PERSONAL INJURY**
- ▶ Improves your immune system= **sick LESS Often**
- ▶ Improves your **ENERGY** and **FOCUS-In and Out of the Pool**
- ▶ Decreases muscle **FATIGUE** and **SORENESS**
- ▶ Decreases time for muscles to **HEAL** and **RECOVER**



Why does Good Nutrition Matter for Kids who are also Swimmers?

Childhood and Adolescence require a lot of energy (AKA food) to fuel both typical growth/development as well as swimming!

- Both are times of **rapid growth and development**.
- Both are times when kids need **extra calories and nutrients to fuel** that growth.
- Swimming/activity require **extra calories and nutrients**.

**Typical growth/development + Swimming=
Need for LOTS of Calories and Nutrients!**



What Happens if I Do NOT Eat Enough to Fuel My Activity?

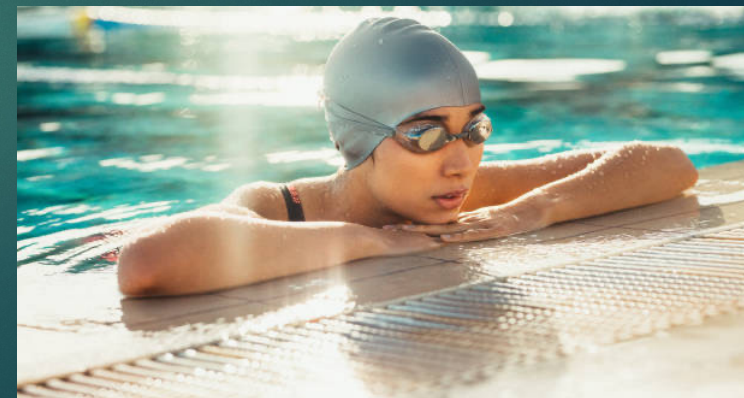
- ▶ If you do not eat enough, your body will begin to use **BODY PROTEIN** as a source of FUEL= **DECREASE** in muscle mass

- ▶ Inadequate Intake/Refueling= Tiredness and Decreases Performance the next day

- ▶ **Daily** lack of nutrients/calories →

Chronic Tiredness, Muscle Loss, Weight Loss →

Decreased athletic performance and health





Nutrition to Fuel- Macronutrients

Food is made up of 3 **MACRO**nutrients (big nutrients that our body needs)

3 Macronutrients are:

- 1.) **Carbohydrates**
- 2.) **Proteins**
- 3.) **Fats**

All three play *an important role in FUELING your body*. Eating well balanced meals and snacks allows you to get all of the macronutrients and calories you need.

The image is a vertical collage on the left side of the slide. The top half shows various grains and baked goods: a bowl of wheat berries, a pile of rolled oats, a small wooden bowl of quinoa, a loaf of bread cut into slices, and some whole wheat flour in a small white bowl. The bottom half shows a variety of fresh fruits: green grapes, orange slices, a whole orange, a pomegranate, red apples, and purple grapes.

Carbohydrates

- ▶ **Carbohydrates= ENERGY!**
- ▶ Carbohydrates (AKA Carbs) can be stored in the body for longer energy
- ▶ Carbohydrates are especially important for high intensity sports
- ▶ **How Much Do You Need?**
 - About half of your calorie should be carbs
 - That means about half of your plate should be carbs

Carbs are NOT Optional, they are ESSENTIAL!

Types of Carbohydrates



Simple

- Contains **less** fiber and nutrients
- **Sources**: Fruit Drinks, Soda, Cookies, Candy, Snack Cakes
- Usually **high in sugar** and **lower in nutrients**
- Provide a **QUICK BOOST** of energy

Complex

- Contains **more fiber** and **nutrients for sustained energy**
- **Sources**: Whole grains/wheat bread, Fruit, Rice, Pasta, Tortillas, Potatoes, Peas/Corn, Legumes (kidney beans)
- Usually **lower in sugar** and **higher in nutrients**

Protein

- Maintains & Builds muscle mass
- Repairs muscle after exercise
- Needed for Growth & Development
- Builds and maintains all bodily proteins like the heart, GI Tract, etc



Protein

Animal Sources: Meat, Dairy, Poultry, Fish, Eggs

- **COMPLETE** Proteins (contain all the amino acids needed)

Plant Sources: Vegetables, grains, nuts, beans, quinoa and chia seeds.

- **INCOMPLETE** Proteins so have to eat a wide variety each day

Focus on WHOLE Foods for Protein, NOT Protein Powders



Fats

- ▶ **Concentrated source** of calories
- ▶ Used as a **fuel source** when all stored Carbohydrate is used up
- ▶ Key for **endurance activities** (like swim practice) & long distance events



Types of Fats

Four Type of Dietary Fat

- ▶ Monounsaturated - Heart Healthy 
 - ▶ Avocados, pumpkin seeds (pepitas), almonds, cashews, peanuts, olive oil
- ▶ Polyunsaturated - Heart Healthy 
 - ▶ Walnuts, flax seeds, soybean oil, fish
- ▶ Saturated - Limit
 - ▶ Coconut oil, lard, fried foods, butter
- ▶ Trans Fat - Limit
 - ▶ Commercially packaged foods, shortening, margarine, non-dairy coffee creamer

Fats

- ▶ Fats are important for children/adolescence so should **never be avoided**.
- ▶ The **type of fats** you choose to eat can make a big difference in your **overall eating, health and activity**
- ▶ Choosing more **HEART HEALTHY** ❤️ fats like Mono- and Polyunsaturated fat is preferred.



How Much Should I Eat?

- ▶ You are eating to fuel typical adolescent growth and development **AS WELL AS** your activity
- ▶ Eat when you feel **HUNGRY!**
- ▶ Eat **AT LEAST** 3 meals a day PLUS 2-3 snacks (**NO Meal Skipping!**)
- ▶ Don't forget **breakfast!**

Key to snack BEFORE, AFTER and sometimes DURING long activity





Signs You Are Not Eating Enough

- ▶ Tired Often
- ▶ Foggy Head and Difficulty Focusing
- ▶ Increased Injuries
- ▶ Dizzy
- ▶ Feeling Cold all the Time
- ▶ Not in a Great Mood
- ▶ Weight Loss
- ▶ ***Missed Periods***

What Should I Eat?

Balanced Meals that Include:

- 1.) Carbohydrates
- 2.) Proteins
- 3.) Fats
- 4.) Fruits and Veggie
- 5.) Dairy

Breakfast, Lunch AND Dinner

Snacks should include:

- 1.) Carbohydrates
- 2.) Protein

2-3 snacks a day



Snacks:

Carb + Protein

“The Dynamic Duo”

Carbs



Protein

Granola bar
Crackers
Pretzels
Fruit
Granola
Cereal
Bread

Cheese
Yogurt
Hummus
Peanut/Nut Butter
Nuts
Milk/Milk Alternative (i.e. Soy Milk)





How To Fuel: BEFORE Practice

- ▶ **2-3 hours before:** Meal that contains Carbohydrate, Proteins and Fats (*Probably Lunch*)
- ▶ **Before Practice** : Snack that contains carbohydrate and protein
- ▶ **Before and During Practice:** Water & fluids that contain carbohydrate/electrolytes (i.e. Gatorade/Powerade/Liquid IV)

How to Fuel: **After Practice**

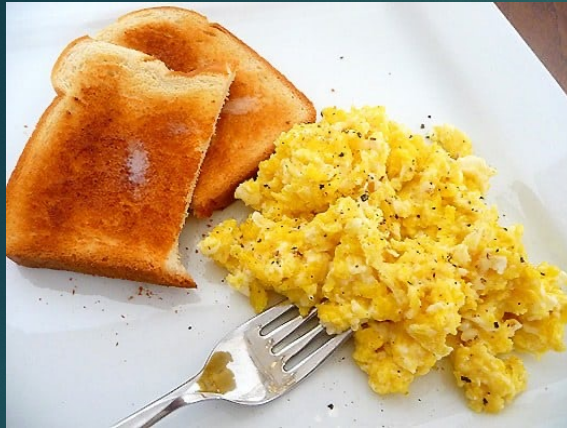
- ▶ **15 minutes-1 hour after practice**: Consume a snack with carbohydrate and protein
 - *Increases recovery time* of muscles and *replenishes the bodily stores of carbohydrates*
- ▶ **1 -2 hours after practice-** Consume a well-balanced meal
- ▶ **Next 24 hours-** Continue to refuel with carbohydrate rich foods

Quick & Easy Meal Ideas

BREAKFAST	LUNCH
Whole Wheat Toast With Peanut Butter & Banana, Yogurt	Peanut Butter and Jelly Sandwich on Whole Wheat Bread, Apple, Carrots
Eggs with 2 slices Whole Wheat Toast & an Apple	Pizza, Side Salad, Strawberries, Milk
Carnation Instant Breakfast (add some fruit and nut butter) or a Fruit Smoothie made with Greek Yogurt	Whole Wheat Crackers & Cheese, Grapes & Vegetables, Greek Yogurt
Greek Yogurt With Granola or Cereal & Berries	Ham and Cheese Rollup, Celery Sticks, Banana, Chocolate Milk
Avocado Toast with an Egg and a Banana	Hummus and Pretzels, Mini Tomatoes, Almonds, Berries



Balanced Breakfast



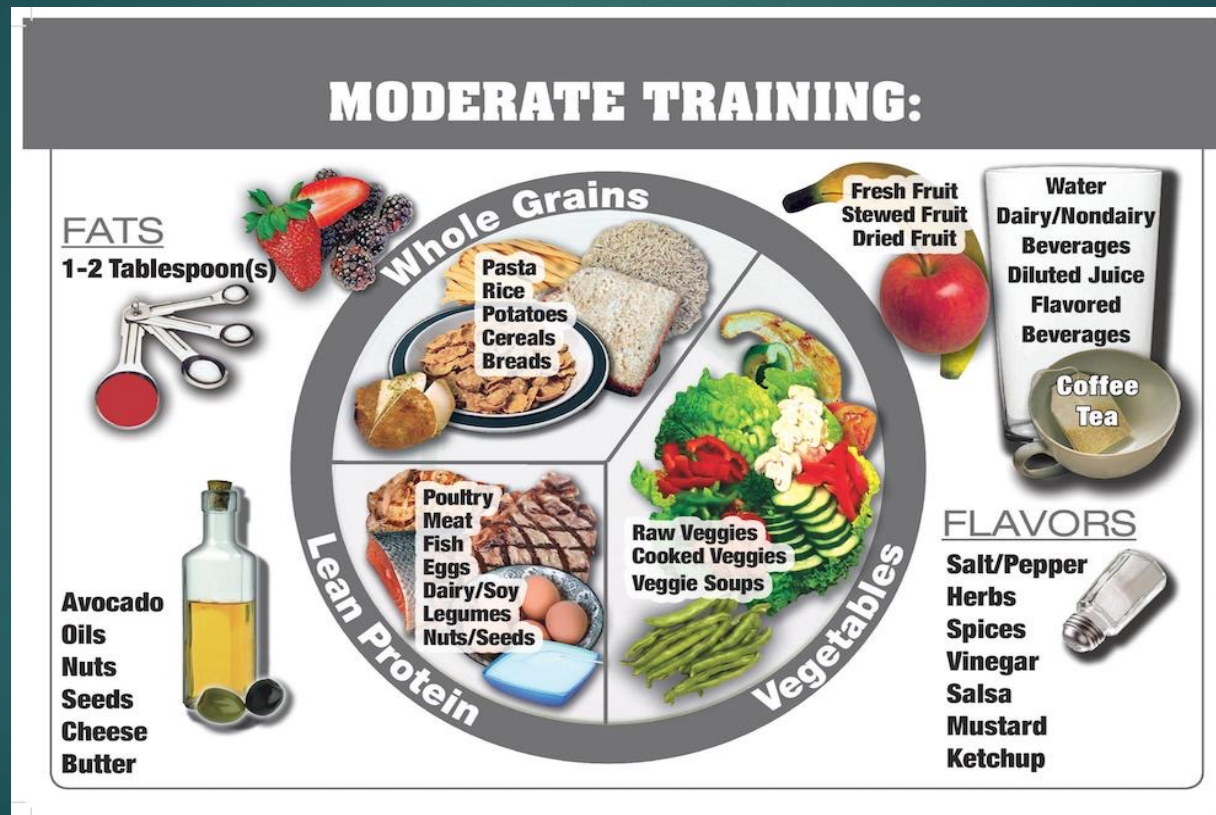


Balanced Lunch

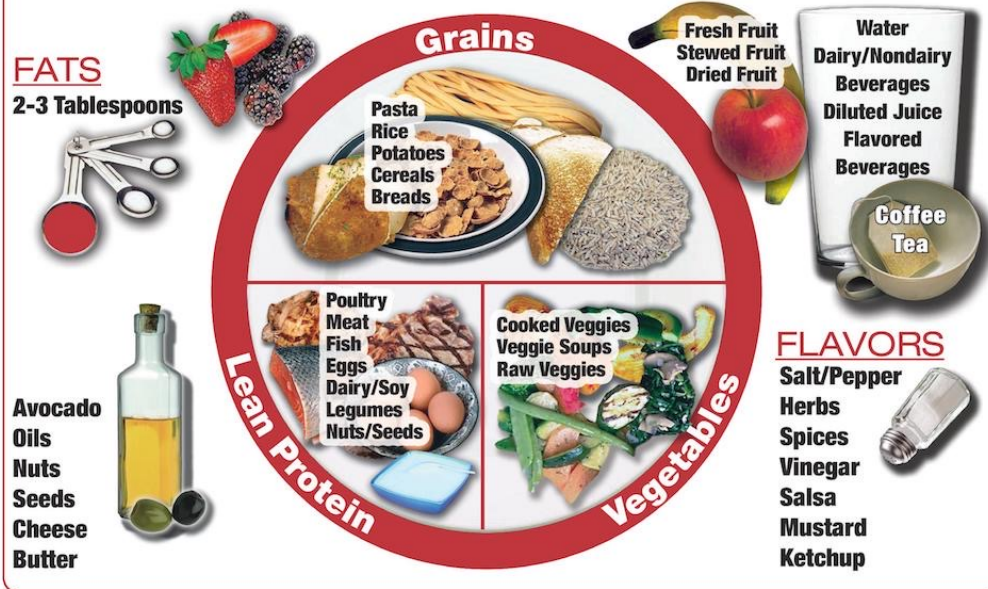
Balanced Dinner



Moderate Training Athletes Plate



HARD TRAINING:



Hard Training
Athletes Plate-
Aim for as
Adolescent
Athletes

Meet Days

Swim meets are LONG! Have a plan for fueling for the day!

Breakfast

- Make sure to **fuel before** your meet with a breakfast that contains **Carbs and Protein**
- **Have a nervous stomach?** Try something easier to eat like smoothie, Carnation Instant Breakfast, Toast with Nut Butter or Greek Yogurt & Granola Bar, etc.



Meet Day Snacks- Pack for Performance

*What you pack as your **snack** can have a **big effect** on your energy and performance on meet days. You have worked hard in practice so pack foods that will help you shine on meet days!*

- ▶ Pack snacks that are **rich in Carbs** to provide you with the energy you need to fuel your race.
- ▶ Make sure to **include protein** for sustained energy and fuel.
- ▶ **Avoid foods high in sugar and/or caffeine.** They have little nutrients and may cause your energy to crash halfway through the meet.

Meet Day Snacks

Example Snacks

Go Go Squeeze, Tube Yogurt, PB&J (or Uncrustable), Cracker and Cheese packs, Cheese sticks, Pretzels, Fruit, Granola bars/bites, Energy Bites, Goldfish cracker, fruit leather, etc.

Don't forget to hydrate by packing water or electrolyte drinks.



Meal Skipping- Don't Do It!



What Happens When You Skip A Meal?

- ▶ You may feel **tired or sluggish** with little energy to think & little energy to be active
- ▶ You may feel **weak or shaky**
- ▶ You may experience **headaches**
- ▶ **Missed opportunity to fuel** your body and make the most of practice and meets

Skipping Meals Can Cause More Damage Than Good



How Much Fluid Do I Need?

4-8 yo= 5 cups or 40 oz/day

9-13 yo= 7-8 cups/day or 54-61 oz

14-18 yo= 8-11 cups or 64-88 oz
fluid/day

+PLUS+ More for activity

Kid/Teens Dehydrate Quickly!

Hydration

What Should I Drink?

Drink This:

- ▶ Water
- ▶ Fruit Infused Water
 - ▶ Lemon/Cucumber/Etc.
- ▶ Milk & Other Plant-Based Milk Alternatives (i.e. Soy Milk)
- ▶ Electrolyte Beverages (i.e. Gatorade/Liquid IV) especially if sweating

Avoid:

- ▶ Soda
- ▶ Coffee
- ▶ Caffeinated Drinks
- ▶ Energy Drinks (Celsius, Monster, etc)
- ▶ Drinks rich in sugar (Fruit Punch)
- ▶ Coffee drinks rich in sugar/caffeine (i.e. Starbucks drinks)




How To Tell If You're Hydrated

URINE COLOR CHART

OVER HYDRATED	NO COLOR
GOOD	PALE STRAW YELLOW
FAIR	TRANSLUCENT YELLOW
LIGHT DEHYDRATED	DARK YELLOW
DEHYDRATED	AMBER
SEVERE DEHYDRATED	BROWN

What does dehydration feel like?

- ▶ Excessive thirst
- ▶ Dizziness /Lightheaded
- ▶ Easily Fatigued
- ▶ Dry Mouth/Lips
- ▶ Infrequent Urination
- ▶ Loss of Appetite
- ▶ Muscle Cramps
- ▶ Flushed or Red Skin
- ▶ Swollen Extremities



Quiz- What is the Best Post
Recovery Beverage?

A close-up photograph of a glass bottle of chocolate milk being poured into a clear glass. The chocolate milk is a rich, creamy brown color and is captured mid-pour, creating a smooth, continuous stream. The bottle has a yellow cap. The background is a plain, light color.

**CHOCOLATE MILK:
RECOVERY FUEL**
FOR ATHLETES

A dark teal background with a subtle gradient. In the top right corner, there is a solid red rectangle.

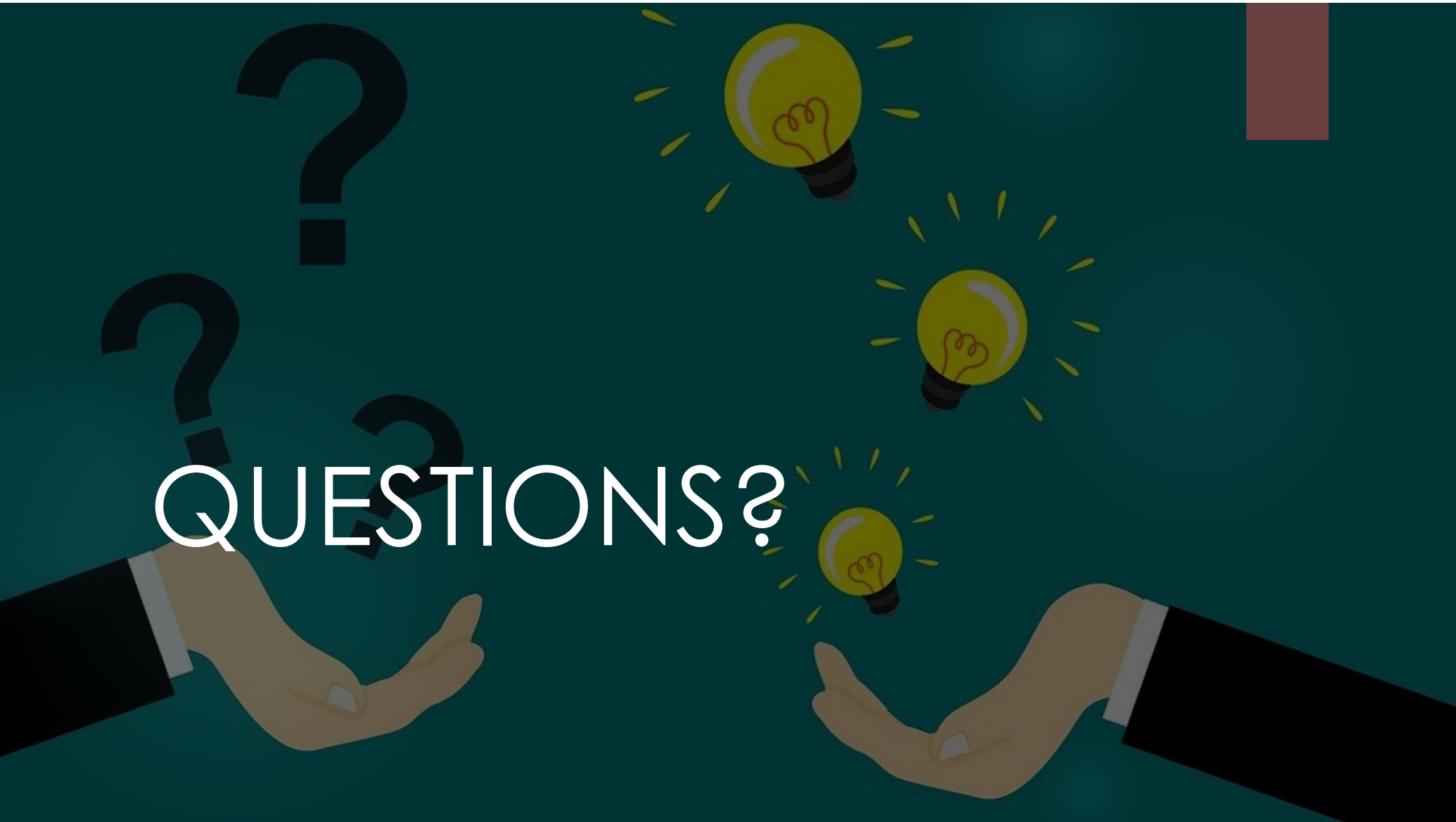
Chocolate
Milk!

Team Culture

It is up to all of you to set the culture of your team to one that focuses on building strong, fueled bodies that are ready to make the most of your season.



QUESTIONS?





Have More Questions?

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