

# Nutrition and Recovery

Chargers SC  
Development Academy





“Give a man fish and you feed him  
for a day; teach a man to fish and  
you feed him for a lifetime.”

-Chinese Proverb

# What this means for you!

- We will prepare you on the field...we need your help off the field with Nutrition and Hydration.
- Would you play a big match without preparing technically and tactically? So why are we not preparing nutritionally to succeed?
- What you eat and drink **WILL** influence how you play!!

# How the body works!

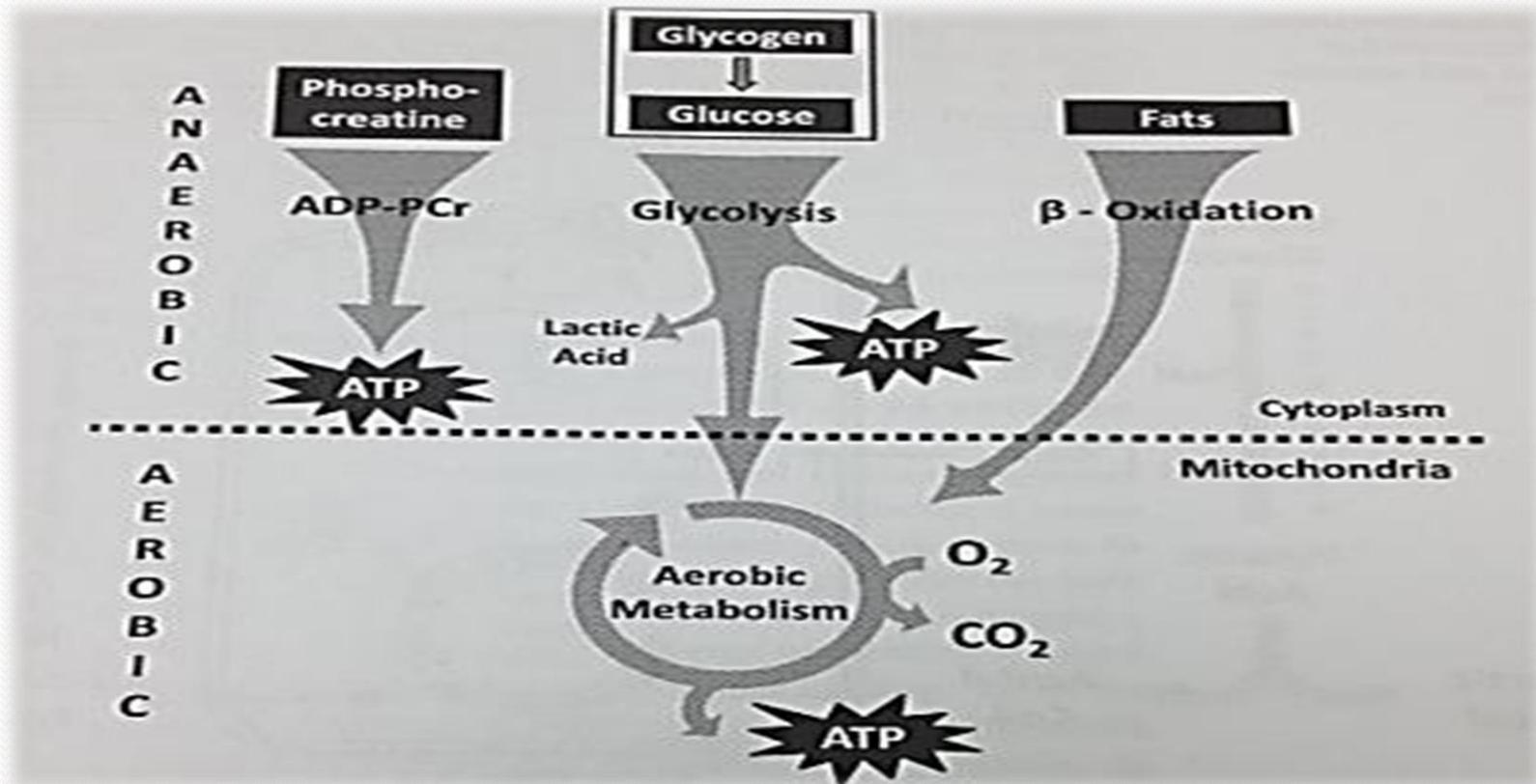
- Oxygen goes into the blood.
- Oxygen filled blood goes into the Muscles, which combine to burn fat and carbs = ATP
- ATP (Adenosine Triphosphate) is needed to do ANY action.

# How the body works!

- More explosive actions need more ATP
  - More ATP means more blood (HR rise)
  - More blood means more oxygen (Breathing rise)
  - HR/Breathing can't go instantly from 90 to 180 bmp, so body borrows extra ATP to go from walk to sprint from the Phosphate System.

# How the body works!

- Borrowing from the Phosphate System and Glucose.



# 3 ways the Body uses energy

1. Phosphate is taken to make ATP: Fastest, but can only last 2-10 seconds before empty. (Borrowing from Phosphate reserves)
2. Glycogen and Glucose metabolized through glycolysis: Fairly fast, can last 2-60 minutes if trained. (Stealing Carbohydrates)
3. Fats broken down aerobically in mitochondria of muscle: Slow process, long supply.

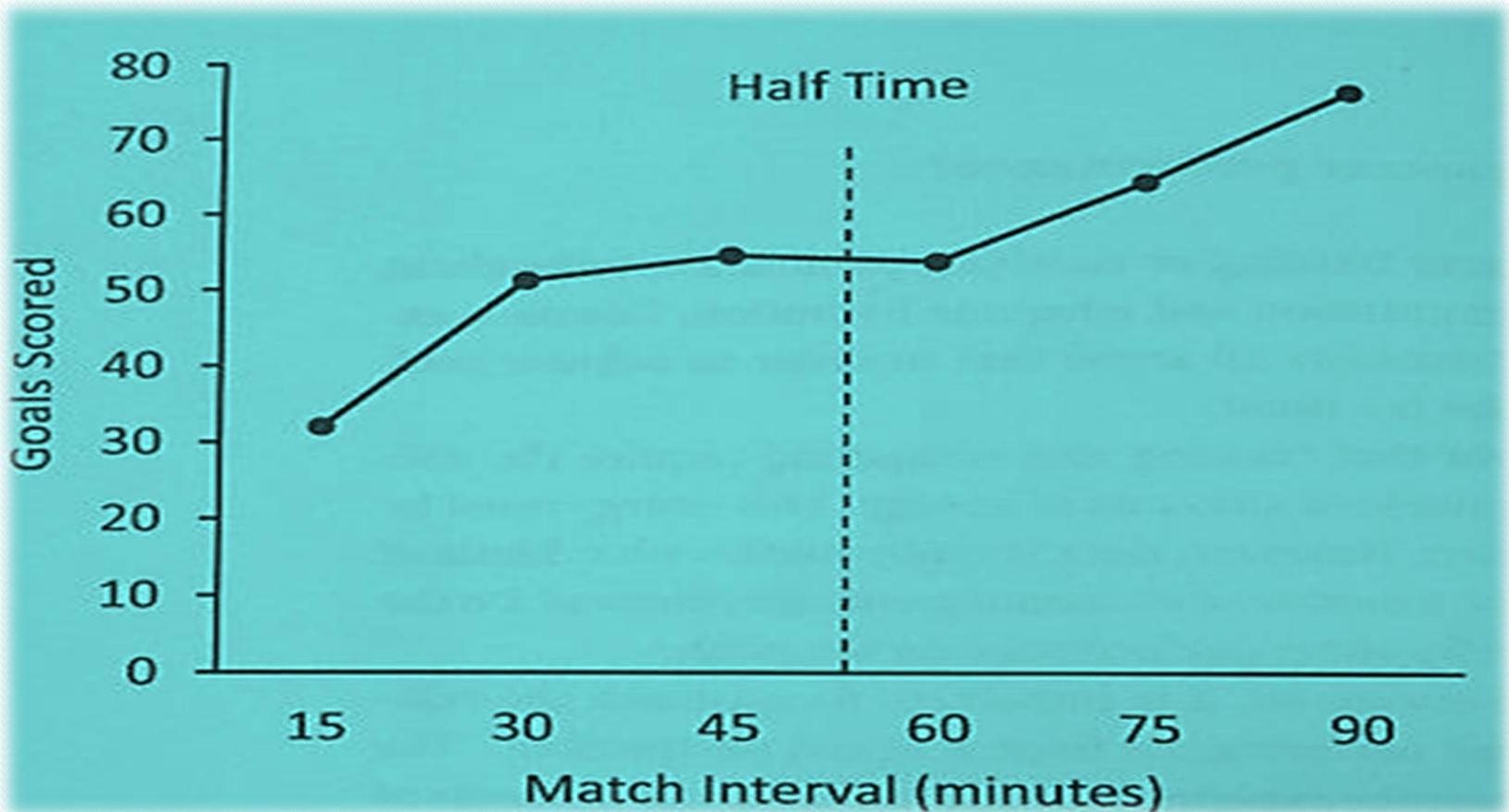
# How the body works!

- Replenishing the Phosphate system.
- Effects of low Carbohydrate levels on performance.

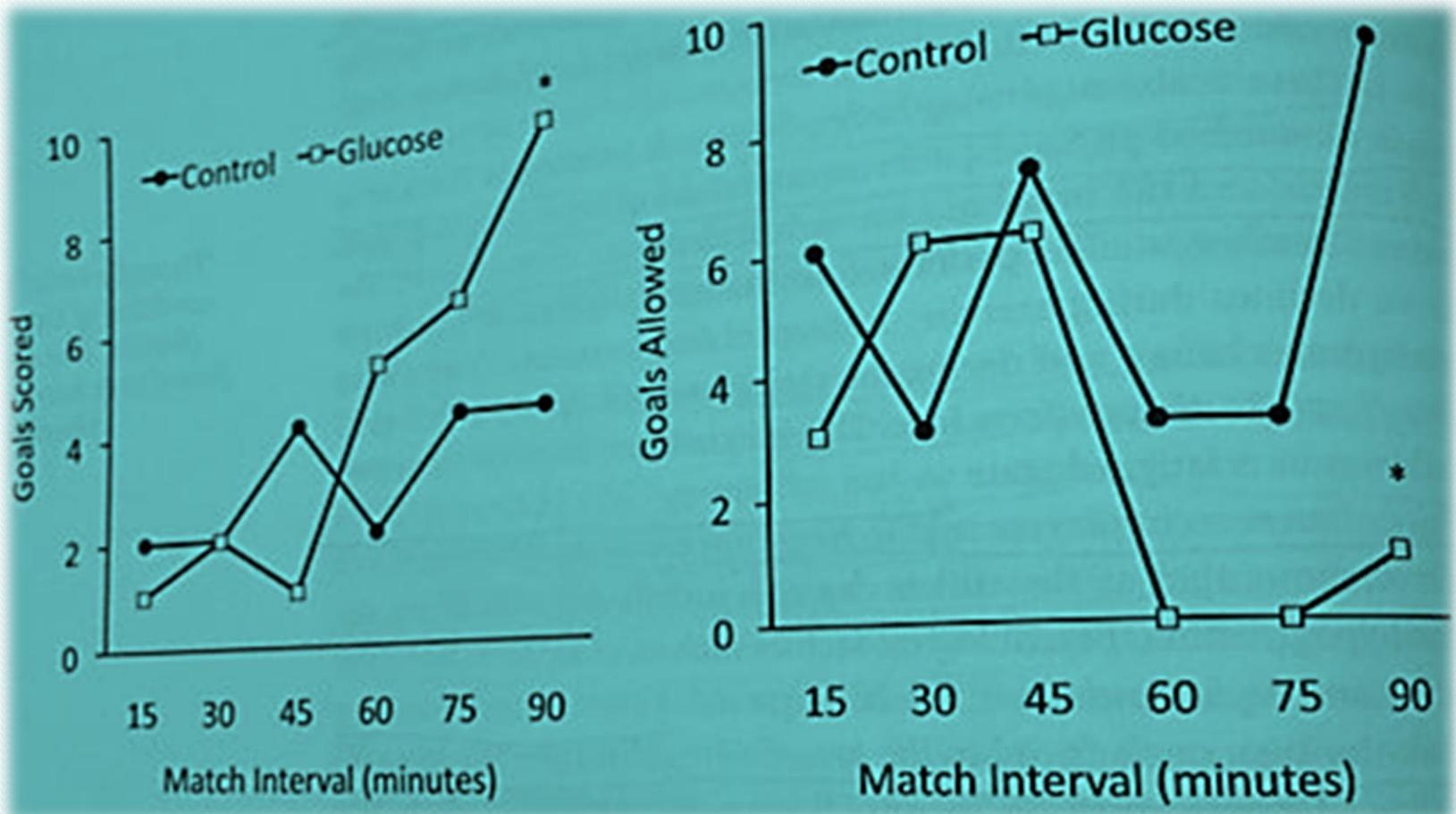
# Evidence and Research

- There is now more than 40 years of Scientific research and facts linking how proper diet can improve or diminish soccer-specific performance.
- Proof that performance drops late in matches and training.

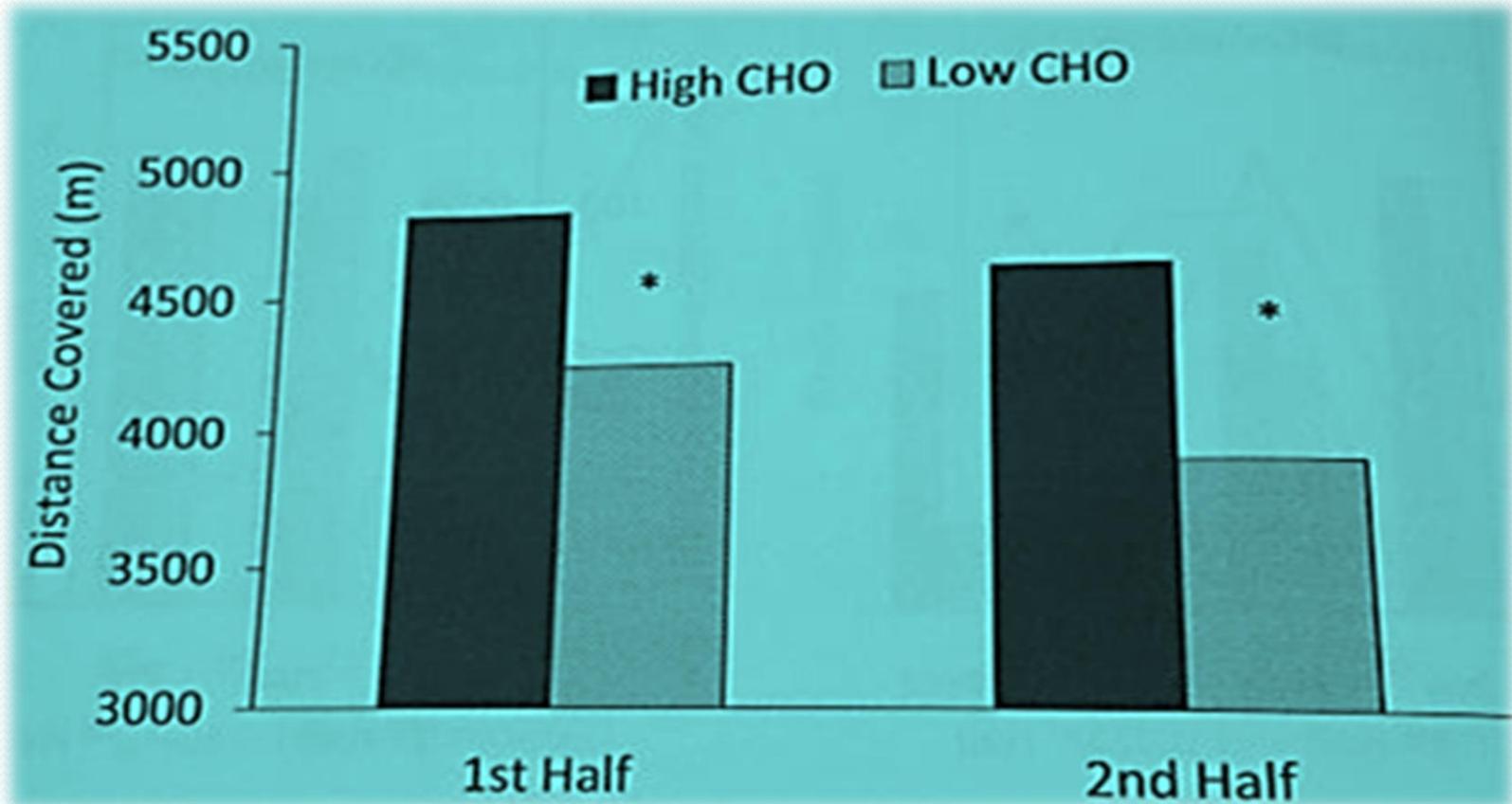
# Evidence and Research



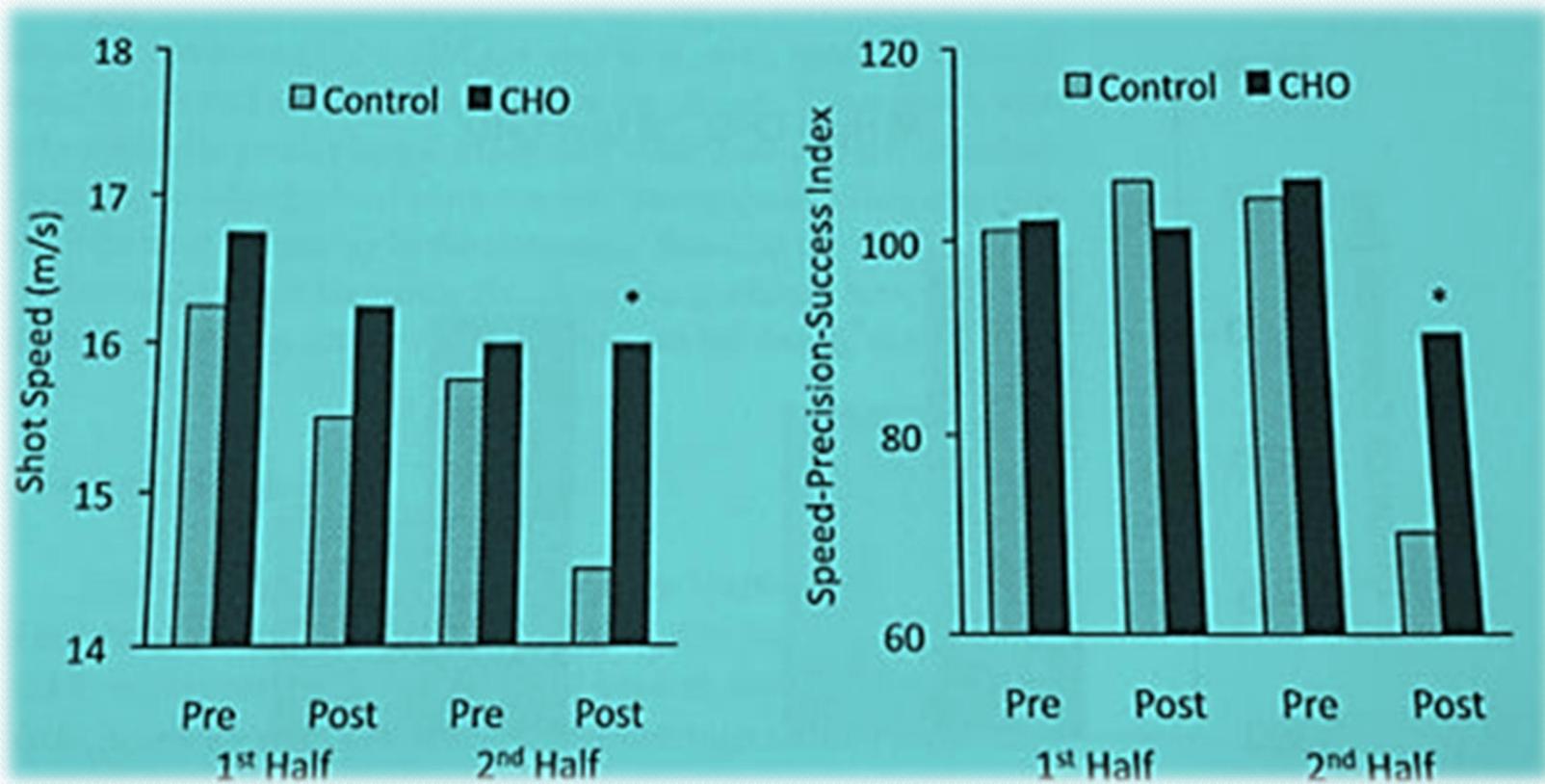
# High Carbs vs Average Diet



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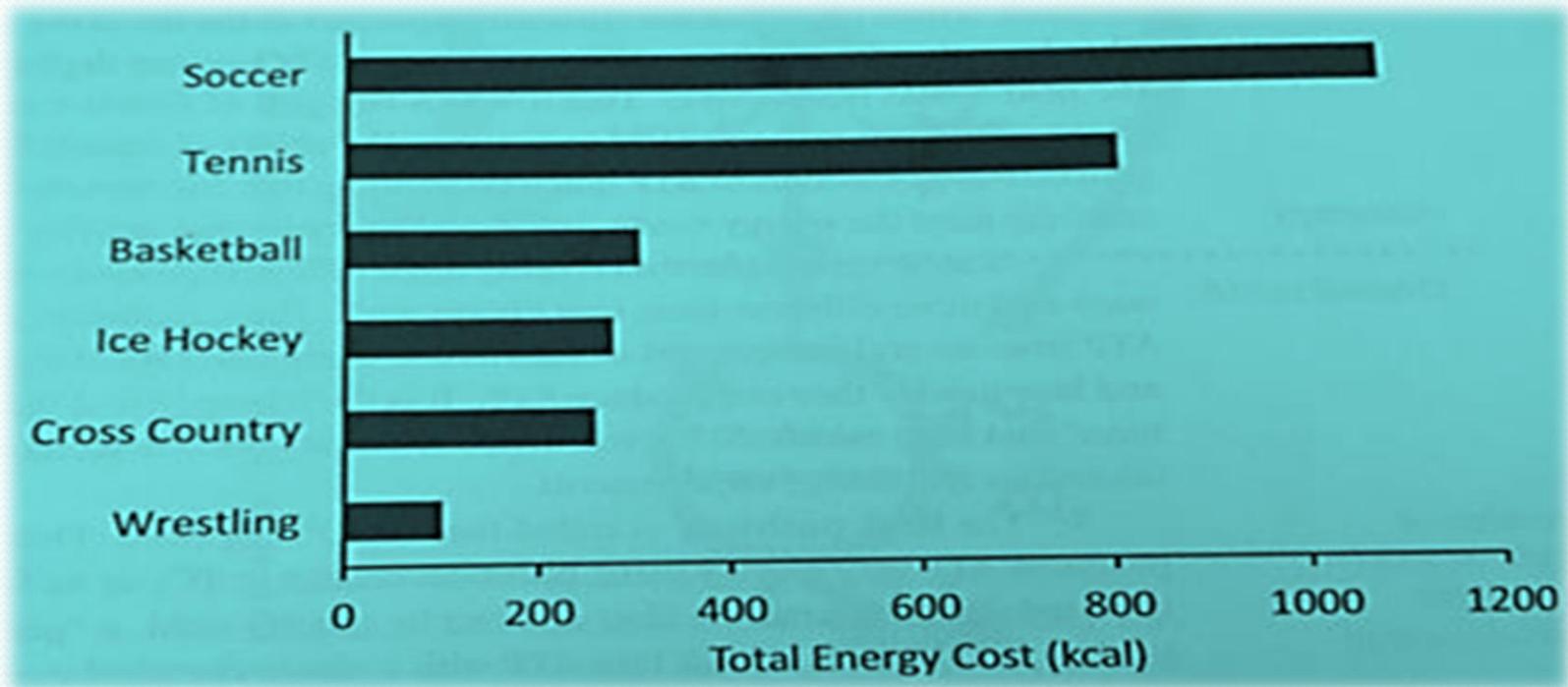
# High Carbs vs Average Diet



# Evidence and Research

- Players sprint every 90 seconds and change directions up to 1000 times per match.
- Youth to Pro Players run on avg 5-7 miles per match.
- Players expend anywhere from 1100 to 1500 kcal of energy per match. (training is similar)

# Evidence and Research



Soccer is unlike any other sport.

# Long Term Nutrition Goals

- To fuel the body for optimum soccer performance
- To maintain the body for 10 months of optimum soccer performance.

# Short Term Nutrition Goals

1. Carbohydrate stores fully loaded and fully hydrated before every training and match.
2. Carbohydrate levels maintained during training and matches.
3. Carbohydrate levels restored within 60 minutes of every training and match for ideal recovery.

# Role Nutrition Plays

- Without the correct fuel the body won't run properly.
- Athletes can NOT perform at their maximum without proper Nutrition.
- Body becomes highly susceptible to injuries without proper nutrition.

# Proper Nutrition

- 60-65% Carbohydrates
- 20-25% Fats
- 15% Proteins

# Proper Nutrition

- Low Glycemic Carbs= Slow Absorbing
  - Eat these 2-3 days before matches
  - Slow Carbs= Brown rice, oatmeal, whole grain bread, whole wheat pasta
- High Glycemic Carbs= Fast Absorbing
  - Eat these on day of the match
  - Fast Carbs= Bananas, berries, energy bars, low-fat yogurt, chocolate milk, powerade

# What should I eat?

- Good Fats= Unsaturated Fats
  - Avocados, olives, nuts, natural peanut butter, walnuts, salmon, coconut olive, extra virgin olive oil
- Bad Fats = Saturated Fats
  - Commercially baked goods, packaged snack foods, solid fats, fried foods, anything with “partially hydrogenated” oil, soda, almost all fast foods and avoid any excessive sugar.

# What should I eat?

- Proteins: Avoid excessive Red Meat and Processed Meat
  - Fish/Poultry: skinless, grilled. Organic to avoid GMO and pesticides.
  - Dairy products, beans, nuts and seeds.
  - Tofu and Soy products: look for organic

# Proper Nutrition

- You should be eating REAL, NATURAL foods...not processed foods.
- Your body is designed to perform, repair itself and is a fantastic organism...but only if we fuel it properly.
- How much should I eat per day?

# How much should I eat?

- Soccer players should eat about 3-4 grams of carbs per pound every day.
  - Example: Weight 150 pounds, 450-600g carbs per day.
  - More on match days or tough training session days.
- Soccer players should eat about 0.64 to 0.82 grams of proteins per pound every day.
  - Example: Weight 150 pounds, 96-123g protein per day.
- You will always eat enough fat, just make sure it's unsaturated.

# Preparing for Matches

Carbohydrate intake 2-3 days before match:

- Whole wheat pasta/rice/potatoes with lean protein and veggies 2-3 evenings leading up to match.
  - Slow absorbing Carbs.

On Match Day:

- “Sport Meal” = last meal before game
- 2-4 hours before match, largely carbs, little fats, low fibers and low proteins. Fast absorbing carbs!
  - Example: lean chicken with veggies, low-fat yogurt, fruits, banana

# Preparing for Matches

On Match Day:

- From 2 hours until warm up time eat only easily digestible “carb snacks.”
  - Granola bars, Bananas, no excessive sugar
- After warming up consume energy carb drink about 0.6 liters of water mixed with powerade.
- Every 15 minutes should consume 0.3 liters of water mixed with powerade.

# Nutrition after the Match

Immediate carbohydrate intake after the match:

- 100 g of carbs within 60 mins of the match
  - 25g of carbs per hour for the next 24 hours.
  - AVOID foods that are high in fat such as chips, snack cakes and candy

Ideal to drink fat-free/low fat Chocolate Milk immediately after match. Then follow with a banana, low fat yogurt with berries, whole grain cereal and whole wheat toast.

# Nutrition after the Match

- Your bodies glycogen reserves are completely drained following a match.
  - The quicker you restore these levels, the faster your muscles recover.
- If glycogen levels aren't replenished before next match or training, injury risks can increase from 40-70% depending on levels restored.

# Nutrition after the Match

- What you eat and drink immediately after a match/training affects performance the next day and the rest of the week.
- Fatigue, celebration or frustration can discourage player from focusing on post-match nutrition, but it must be done.
- The easiest and effective ways to ensure peak performance the next day is to eat and drink properly soon after exercise.

# Hydration

If you aren't Hydrated you will NOT perform well!

- Everyday you should drink about 1 oz of water per body pound, 150 lbs = 150 ounces everyday.
  - This amount should be higher if the temperature is very high, adding another 30-70 ounces.
- Avoid gatorade or powerade until the time from warm up to post match on game days. (too much sugar)

# Nutrition Simplified

- Carry a gallon jug of water with you at school. Finish it by the end of school, this will get easy after a week or 2.
- Eat only REAL, NATURAL foods...No Fast Food and Absolutely NO SODA! You are an elite athlete...eat like it!
- Your body needs Carbohydrates for energy, so fuel it!

# Every Advantage

- The Coaching staff will prepare you technically, tactically, mentally and physically...but if you don't prepare yourself nutritionally and with hydration you will still run out of energy quicker than your opponent!
- You want to be a pro...act like a pro! Fuel your body for success!