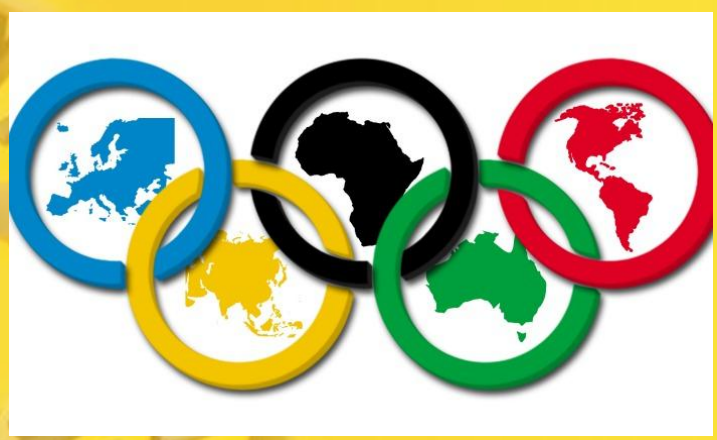
NUTRITION TO ENHANCE PERFORMANCE

“LIVING TO THE FULLEST”



On Nutrition:

WHY DO WE EAT?

WHY DO WE NEED TO EAT?

We need food to grow properly and have enough energy to do what we want.

“Everything is permissible for me, but not all things are beneficial. Everything is permissible for me, but I will not be enslaved by anything”

[and brought under its power, allowing it to control me].

1 Corinthians 6:12

- Everything we do requires Energy

  - Energy is supplied by the calories from food, mostly from carbohydrates and a little from fat

#High-Intensity Exercise (glycogen)

#Low-Intensity Exercise (mostly fat)

#Endurance Activities (glycogen then fat)

On Nutrition:

4 BASIC AREAS OF NUTRITION:

1. Healthy Physical growth
2. Performance enhancement
3. Weight control
4. Preventive eating (eating to avoid future diseases)

The Pre-game meal

Pre-event meals are intended:

a. to stave off hunger (impairs focus)

b. to store enough energy

*** Timing is everything

24-48 hrs : period that the body takes to restore the muscle fuel supplied by carbs

The Pre-game meal

* Timing is everything…

- 1 or 2 days: the athlete should begin to get about 65-70% of calories from carbohydrates at each meal.
- Shortly before the game: light meal that are easy to digest (low-fat, low-fiber diet)

  Note: the day of an event is not the time to try a new food

The Pre-game meal

* Timing is everything…

- As game time approaches: portions should get smaller
  - *Note*: if the athlete likes, the athlete can consume a small quantity of carbohydrate just before competing
  - *Note:* If the athlete prefers to skip breakfast due to an early-morning game, a high-carbohydrate snack the night before can ensure he/she won't be energy-depleted

Example of a Pre-exercise Meal guideline

3 or more hours before	2 to 3 hours before	1 to 2 hours before
Fresh fruit and/ or vegetable	Fruit and/or vegetable	Fruit and/or vegetable (low-fiber such as honeydew or watermelon)
Bread or crackers	Bread or crackers	
Peanut butter, lean meat and low-fat cheese		
Low-fat yogurt		
Pasta with tomato sauce		
Cereal with low-fat milk		
Sweet potato		

TIMING MEALS BEFORE EVENTS

TIME EVENT	
8:00 AM	The night before, eat a high- carbohydrate dinner, drink extra water. In the morning(6-6:30), have a light meal. But if you want a bigger meal (get up to eat at 5:00)
10 AM	The night before, eat a high-carbohydrate meal and drink extra water. In the morning, eat a familiar breakfast around 7 am to allow 3 hrs of digestion.
2 PM	An afternoon game allows a time for you to have a big high-carbohydrate breakfast and light lunch, or Brunch at 10

Food during the event

- A small amount of carbohydrates during an endurance event lasting more than 60 to 90 minutes can delay fatigue.
- Eating 40-60 grams (100-300 calories) of carbohydrates per hour of exercise can help maintain blood sugar levels.

Food during the event

- Eating 40-60 grams:

example:

large banana: 150 cal

Food after the event

- Muscle glycogen is most effectively restored by consuming carbohydrates within 30 minutes after vigorous exercise/ competition.

- Followed by more carbs 2 hours later

HYDRATION

Trivia: Did you know that one of the most common causes of gastro-intestinal complaints in runners is dehydration?

Fluid intake Guidelines

12-24 hours before event	During event	8 hours after event
Drink enough so that the urine is almost colorless	Drink ¼ cup to 1 cup (4-8 ounces) of water every 15-20 minutes depending on the tolerance *not juice or carbonated soda because of too much carbohydrate for easy absorption	Drink 2-4 cups (16-24 ounces) for each pound of weight lost during exercise or event

!!! An athlete doesn't need to be thirsty to be dehydrated

* The body is dehydrated when it has lost more fluid than it's taken in, resulting in not having **enough water** to allow it to perform at optimal level.

Medical Complications:

I. Kidney Problems

* When **dehydration occurs** there is a shunt of blood away from the gut and kidneys so that the blood will preferentially go to the heart and the brain

Medical Complications:

II. Muscle Cramps

* an increased heart rate for the same amount of aerobic exercise leads to fatigue and get into anaerobic metabolism that will produce lactic acid, which results in **more muscle soreness**

Medical Complications:

III. Skin Damage

* When your body is dehydrated it will slow the blood flow and your **skin doesn't get enough oxygen** or nutrients

Medical Complications:

IV. Heart/ pulse rate increase

*Blood pressure falls and the pulse increases as you dehydrate

*The heart has to work hard to maintain the amount of blood being pumped out to the body, so if there is less fluid in the system, the heart does not completely fill, so it has to beat faster to accommodate.

Medical Complications:

V. Head Ache

*Not having **enough water** in the body means that the brain tissue is losing water, causing it to shrink and pull away from the skull, eventually leading to a headache.

*the flow of **oxygen to the brain** is lowered due to low blood volume caused by dehydration. If you're walking or running and you feel pain in your head, drink water

Medical Complications:

VI. Swollen feet and arms

*The **reason is salt retention** caused by mild to severe kidney dysfunction, which is often caused by dehydration.

*Kidneys are the **body's filtration system** that clears it of toxins. If the organs are not working well, excess fluid is not removed from the body efficiently and it gets trapped in the tissues, causing swelling..

Medical Complications:

VII. Fatigue

*Lack of water slows everything in the body down, leaving you feeling **sleepy and tired**.

!!! Urine is the **best indicator** of your hydration.

✓ well-hydrated will produce **clear or light-colored urine**

X **Dark-colored urine** is a sign of dehydration.

Medical Complications:

VIII. Poor Digestion

*Lack of water, calcium and **magnesium** can cause ulcers, gastritis and acid reflux because the stomach doesn't have enough H2O to produce digestive acid.

Medical Complications:

IX. Constipation

*the large intestine (colon) will soak up whatever water it can from the food you consumed, making it too hard to pass, **causing pain and constipation**.

Medical Complications:

X. Restrictive Airways

*When lacking water, the body will restrict airways as a self-defense mechanism to preserve whatever water it has left

Note: But the amount of water lost through the lungs is relatively small.

Sweat can be *3,000-4,000 ml/hour in exercise and respiratory loss from the lungs is 30 ml/hour*

“Therefore I run thus: not with uncertainty. Thus I fight: not as *one who* beats the air. But I discipline my body and bring *it* into subjection, lest, when I have preached to others, I myself should become disqualified.”

- *Saint Paul of Tarsus*

https://www.biblegateway.com/passage/?search=1+Corinthians+9%3A26-27&version=NKJV

You have a Life to Live…

A Nation to Build!

Your Exemplary Life

I am the Manifestation!

I am the Demonstration!

I am the Transformation!