Fueling for Podium Power

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Why is nutrition important

- Preparing & fueling your body
- Recovering & repairing your body
  - Reducing injury & illness
- Maintaining a body composition
  - Achieving peak performance
- Power, strength, speed, agility
- Mental concentration & focus
  - Endurance & energy
  - Safety
Today…

1. Nutrition Condition
2. Best Bites Macronutrients
3. Fueling for Training
Sport Nutrition Basics

The 4 main nutrients essential for athletes are:

a) Meat, dairy, juice, sugar
b) Carbohydrate, protein, fat, water
c) Bread, fruit, meat, nuts
Sport Nutrition Basics

What are the best “types of foods“ to consume for energy during training?

a) Protein
b) Carbohydrates
c) Fat & Carbohydrate
d) Glucose
HIGH PERFORMANCE NUTRITION

Protein: Growth, repair and maintenance of body tissues
Carbs: Energy and Glycogen
Fats: Fuel source and fat tissue
Fluids: Circulate energy to muscles and brain
Gold level Carbohydrates for Energy

Best Bites ✔
Cereal, & granola bar, crackers and bread
Not all carbohydrates created equal
Knowledge Check

Protein is important for growth, maintenance and repair of muscles and tissue. Athletes need to make sure they get enough protein from these sources:

a) Skippy peanut butter
b) Cheese & hamburgers
c) Fish, chicken, soy, milk
Gold level Protein for Growth & Repair
How much protein do I need?

- Increased needs for growth, recovery, training, adaptation.
- Exact needs for young athletes unknown.
- Varies depending on phase of training.

✔ Do you have protein in each meal?

1.0–1.8 g/kg/day
Knowledge Check

Fats are important for energy and keeping parts of our bodies healthy. The best sources of fats are:

a) Plant fats like olive, nuts, vegetable
b) Fried chicken
c) Bacon
Healthy Fats

✔️ 1 healthy fat lunch and dinner.
Nutrition: Core Meals

Carbs: Pasta, bread, beans, cereal

Protein: Grilled chicken, eggs, yogurt

Fruits and Vegetables: Apples, orange juice, vegetables, fruit salad
Balance

- Core Meals (B, L, D) = $\frac{3}{4}$ food groups
- Snacks = 2/4 food groups

1 serving of carbs = 1-2 fists
1 serving of protein = palm
1 serving of fat = tsp or thumb
Nutrition Timing

Small and frequent meals =

- More ideal body composition
- Higher metabolic rates
- Improved nutrient intakes
- Better maintenance of muscle
Healthy Weight Management

- Go for nutrient dense foods
- Go for fiber
- Work with RD
Calcium

• Low calcium intake may be associated with poor bone development and higher stress fracture risk.

• How many servings do you have?

Best Bites ✔

Yogurt and Dairy
Iron Needs

Iron needed to:
• Transport oxygen
• Produce energy
• Maintain immune system

Higher losses in athletes:
• Inadequate dietary supply
• Increased demands
• Blood loss, foot strike injury
• Heavy sweating
Iron Intake Looks Like...

- Female athletes need more

- Not enough iron: fatigue and weakness, pale skin, rapid heartbeat, irritability, decreased appetite
Training Fuels
Pre-Exercise

When: 1–4 hours before

What:
- High carbohydrate
- Moderate protein
- Fluids (250-500 ml)
- Low fat
- Low fiber
- Easy to digest
...Keep fueling

Back to back race/comp/training
  < 30 min between – liquid CHO
  30–2 hrs – easy digest CHO
  >2 hrs CHO + Pro (meal or snack)

If race time variable, weather dependant keep sipping sport drink every 15 min.
During Exercise

**When:** during exercise
- `< 90 min`
- `> 90 min` CHO

**What:** Easy to digest CHO, liquid or solid

Examples:
- Sport drink
- Energy bar
- Banana
Recovery

When: < 30 min.

What:

• High carbohydrate

• Moderate protein (0.25–3 g/kg BW protein, ~ 15–25 g)

• Fluids

• Low fat

• Easy to digest
Hydration

- Dehydration decreases performance, especially in hot climates.
- Drink before you are thirsty.
- Water bottle with you all day and drink it.
- Check nutrition record?
Timing is Key
TRAINING:
When to fuel up for optimal performance and recovery

- **7:20 - 8:20**
  - Fluids
  - Breakfast
  - Recovery Snack/Breakfast#2

- **12:30 – 2:30**
  - Fluids + carbs
  - Lunch
  - Recovery Snack (30 min)

- **7:20 - 8:20**
  - Fluids
  - Dinner
  - Evening Snack

- Eat every 2-3 hours
- Have a high CHO evening snack before bed if training in morning
Plan ➔ Pack ➔ Perform

• Do not rely on fast-food
• Stock your training bag with high CHO foods & drinks
• Make a list for & go shopping as a family.
Planning: What do you need?

• **Before morning training?**
  – Cereal and juice
  – Yogurt and banana
  – Crackers and milk

• **After morning training?**
  – Water
  – Bagel and peanut butter
  – Bag of cereal, milk

• **At lunch?**
  – Bread, meat, veggies, fruit & milk

• **After school?**
  – Baby Carrots/hummus
  – Fruit bar or raisins

• **After practice?**
  – Water
  – Yogurt or bar, fruit

• **Dinner (a real one)**

• **Bedtime carb snack**
Design Your Post Exercise Nutrition

- Using list of carb & protein foods in handout
- Design 2 new recovery snacks or meals to meet your individual needs
90/10 Rule
Questions?

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