



Nutrition for Peak Performance

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Nutrition for Peak Performance

Presentation Overview

- The Keys to Athletic Success
- The Facts of Life
- Proper Hydration
- Pre- & Post- Competition Guidelines
- Resources for You



Keys to Athletic Success

- Exercise & Training
- Rest
- Nutrition
- Talent & Motivation
- Psyche!



Success in Wrestling

- Strength
- Concentration
- Coordination
- Skill
- Agility
- Endurance

Nutrition Impacts These Factors:

- Body Weight
- Body Composition
- Energy Availability
- Physical and Mental Abilities
- Recovery Time
- Overall Performance

Determining A Healthy Weight

At the Start of the Season

Minimum % Body Fat for Athletes

- ❑ Males: 7-10%
- ❑ Females: 12-15%



The Facts of Life

Energy Needs Must Be Met As a Priority!

- ❑ Caloric Ranges for Student Athletes Vary
- ❑ (2,500-5,000 kcal/day)
- ❑ Males Need More Calories Than Females
- ❑ Athletes with Greater Muscle Mass Need More
- ❑ One Pound of Body Fat = 3,500 calories

Healthy Weight Loss

- Should occur pre-season or early in season
- Must be gradual (1-2 pounds per week)
- Cannot lose more than 1.5% of body weight per week.
- Cannot fall below minimum body weight.
- Reduce caloric intake by 10% or up to 500 calories per day.

Basal Metabolic Rate

- What athletes need just to stay alive
- Take your body weight and multiply by 10
- Athletes should not go below this caloric level
- Caloric deficit diets result in loss of lean body tissue and muscle mass
- Minimum caloric intakes 1600-2000 calories.

These Practices are DANGEROUS!

- Weight Cutting
- Weight Cycling, Yo-Yo Dieting
- Starvation/Fasting, Diet Pills/Laxatives
- Spitting
- Steam Rooms/Saunas/Rubber Suits

NOTE: THESE CAN BE FATAL!

Impact of Rapid Weight Loss

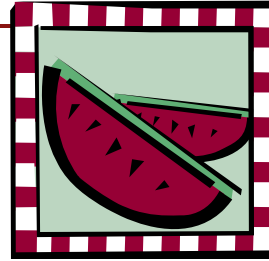
- Decreased muscular strength
- Loss of muscle and organ tissue
- Decreased endurance
- Decreased blood flow
- Lack of energy
- Inability to regulate body temperature
- Impaired reactions and mental focus

Fueling the Body for Exercise

3 Major Food Groups Provide Calories

- Carbohydrates -(breads,cereals, fruits, vegs)
- Fats- (butter, vegetable oils, animal fats)
- Proteins- (meats, poultry, seafood, eggs, dairy products)

High Test Fuel for Athletes



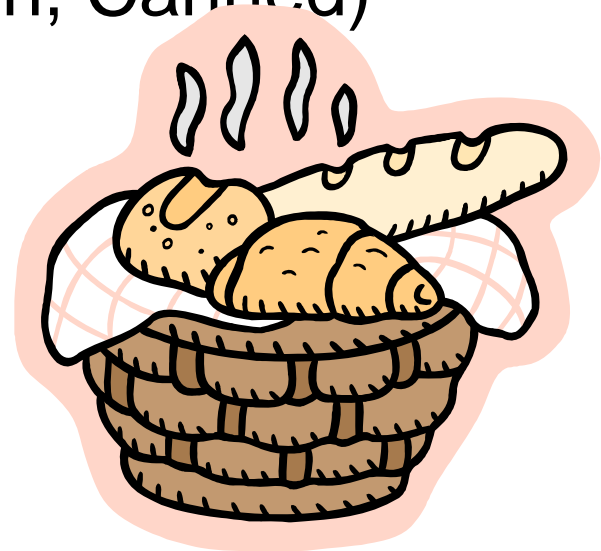
Carbohydrates!!

- The body's most efficient source of energy.
- Maximize muscle glycogen levels for anaerobic and aerobic activities, strength, power and endurance.
- These foods also help hydrate the body.

High Test Fuel for Athletes

Carbohydrates!!

- Whole Grain Breads, Cereals, Pasta
- Fruits (Fresh, Frozen, Canned, Dried)
- Vegetables (Fresh, Frozen, Canned)
- Legumes, Beans



Recommendations for Carbohydrate

50-60% of Total Daily Calories

General Ranges for CHO Intake:

2000 calorie diet = 250 grams CHO

2400 calorie diet = 300 grams CHO

2600 calorie diet = 325 grams CHO

3000 calorie diet = 375 grams CHO

3400 calorie diet = 425 grams CHO

Recommendations for Protein

15-20% of Total Daily Calories

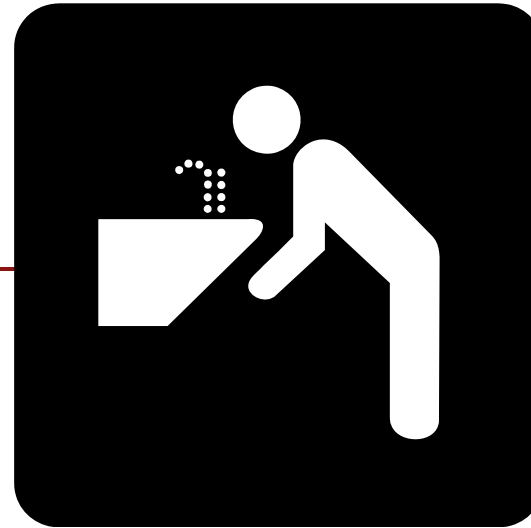
Daily Ranges by Body Weight (kilograms)

1.1 grams/kg body weight

Recommendations for Fat

- 25 - 30% of total daily calories
- Provides fat-soluble vitamins and essential fatty acids.
- No performance benefit to additional intakes of fat.

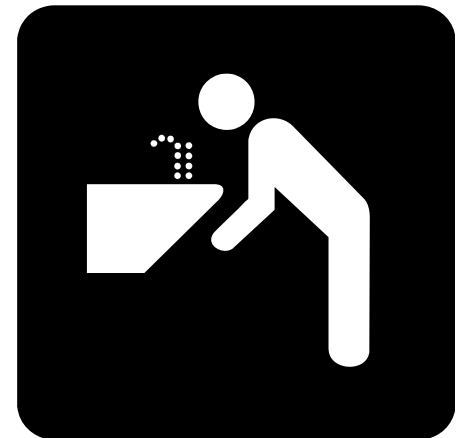
Hydration: Fluids Are Critical!



- Maintain normal body temperature
- Maintain normal blood flow
- Prevent dehydration
- Prevent muscle fatigue
- Reduce incidence of cramping
- Speed muscle recovery

Recommendations for Fluid Intake

- Cool, Plain Water is Best!
- Flavored Waters
- Sports Drinks
- Diluted Fruit Juices (by ½)
- Every athlete is unique



Fluids to Avoid

- Caffeinated beverages (coffee, tea, sodas)
(dehydrate, cause jitters)



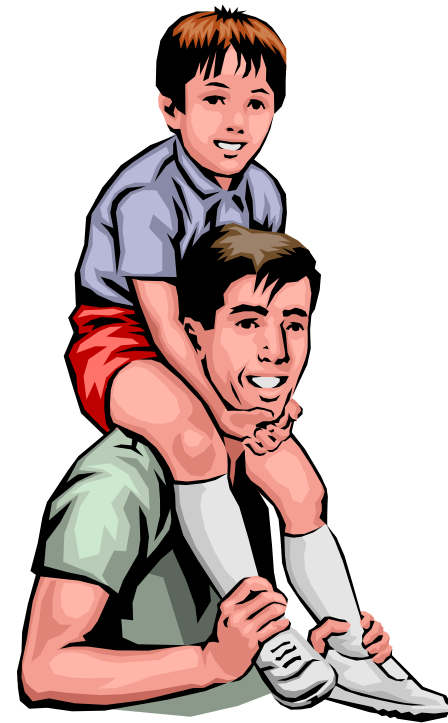
- Alcoholic beverages (beer, wine, liquor)
(dehydrate, depressant)



More on Hydration

Remember:

Thirst is NOT
a good indicator
of hydration levels,
particularly for adolescents
and children.



Recommendations for Fluids

- **Before exercise:**

400-600 ml of fluid (14- 21 oz)

- **During exercise:**

150-350 ml of fluid (6-12 oz) every 15-20 minute intervals

Note: Athletes should weigh themselves before and after training & competitive events.

Vitamins and Minerals

- Primary minerals low in the diets of athletes; calcium, iron, zinc.
- B-complex vitamins; increased needs should be met with additional caloric intake.
- Anti-oxidant nutrients (Vitamins A,C,E,beta-carotene) protect cell membranes. Can be obtained from fruits & vegetables.

Eating on The Run

- Stick to a routine
- Always bring plenty of fluids
- Always bring familiar foods
- Plan ahead for the unexpected

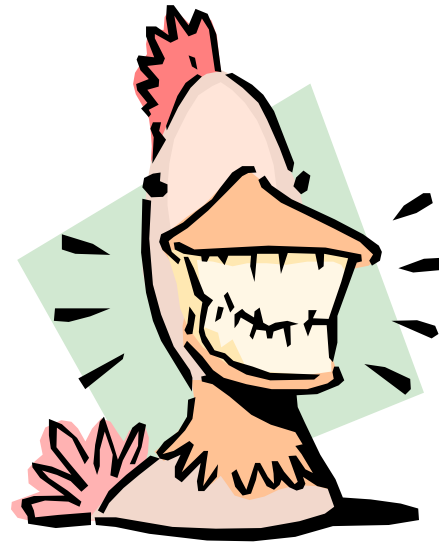


Pre-Competition Guidelines

- Do not introduce anything new.
- Every athlete is unique.
- Stick to a routine.
- Drink plenty of fluids.
- Choose foods that are light/high carbohydrate.
- Avoid gassy/high fiber foods.

Pre-Competition Guidelines

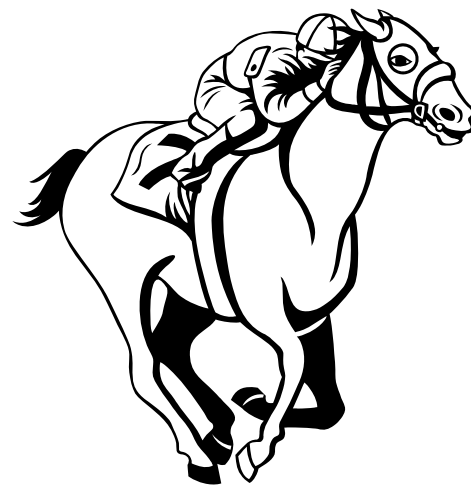
- Avoid concentrated sugars and sweets before exercising.
- Get psyched!



Post-Event Guidelines

Race to Replace!

- Fluids (Re-hydrate as soon as possible)
- Carbohydrates (Replace muscle glycogen)
- Protein (Enhance muscle repair)



Resources for You

- **American Academy of Pediatrics**
<http://www.aap.org>
- **American Academy of Family Physicians**
<http://www.aafp.org>
- **American College of Sports Medicine**
<http://www.acsm.org>
- **Centers for Disease Control and Prevention**
<http://www.cdc.gov>

Resources for You

- **National Association for Health and Fitness**

<http://physicalfitness.org>

- **National Association for Sport and Physical Education**

<http://www.aahperd.org>

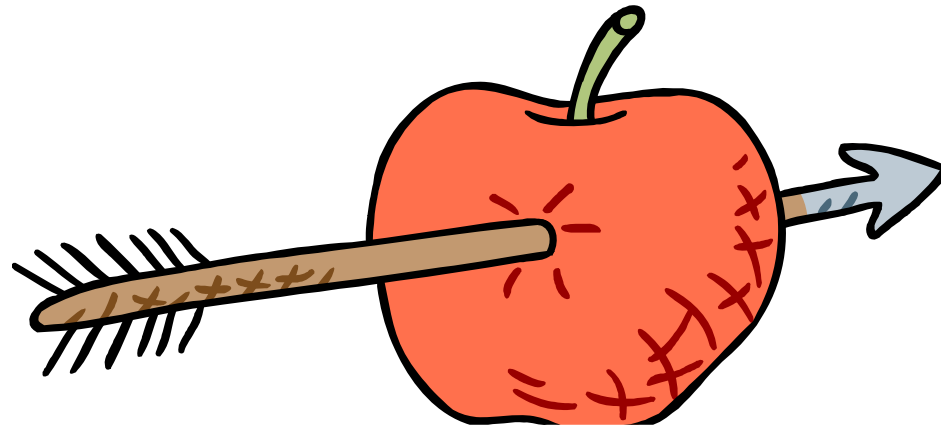
Resources for You

- **U.S. Olympic Internet Network/The Mat.com**
<http://www.themat.com>
- **Student-Athlete Educational Foundation**
<http://www.chap.com>
- **National Collegiate Athletic Association (NCAA) Taking it to the Mat**
<http://www/ncaa.org>

Resources for You

- **Dietary Guidelines for Americans**
<http://www.health.gov/dietaryguidelines>
- **Fruits&Veggies-More Matters!**
<http://fruitsandveggiesmorematters.org>
- **Maine Nutrition Network**
<http://www.maine-nutrition.org>
- **MyPyramid Plan**
<http://www.mypyramid.gov>
- **USDA's Team Nutrition Program**
<http://www.teamnutrition.usda.gov>

Nutrition is Key to Success in Athletics



Eat to Win!
Thank you!