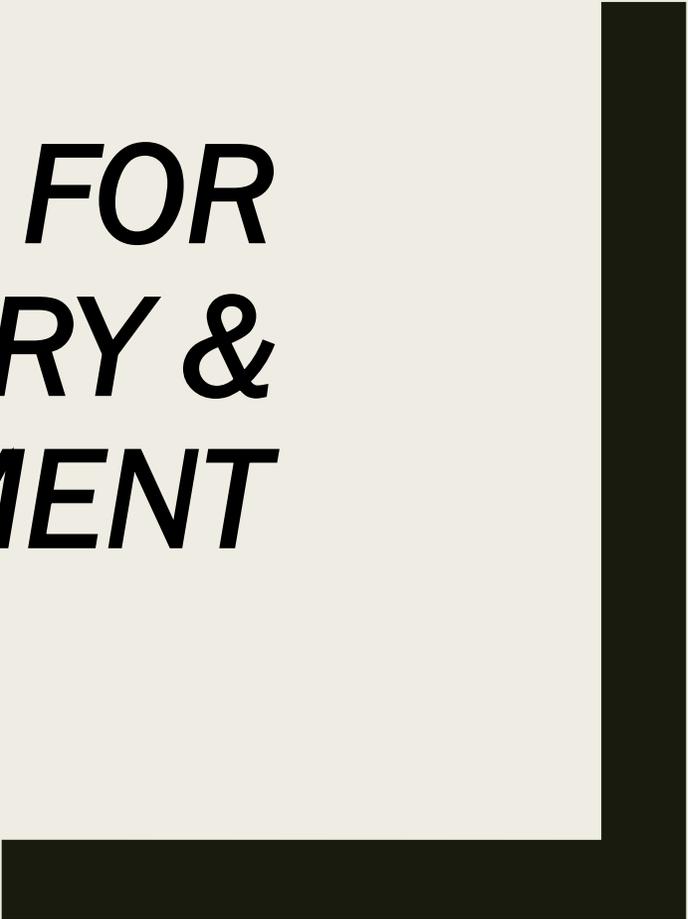




***ENERGY BALANCE FOR  
HEALING/RECOVERY &  
WEIGHT MANAGEMENT***

*Anna Kasperick RD, LN, CPT*



# Nutrition for the Injured Athlete (considerations)

- Nutritional intake prior to injury
  - *Quality and quantity (was nutrition a contributing factor to their injury??)*
- Severity of injury and healing needs
  - *Length of recovery*
- Relationship with food and body
- Overall energy balance
  - *Activity level pre and post injury*

# Injured Athlete Fears

- Length of recovery
- Playing time post injury (after they have recovered)
- Being left behind
- Idle time
- Losing identity
- Losing “gains”
- Getting ”fat”

# Post Injury Nutrition Goals

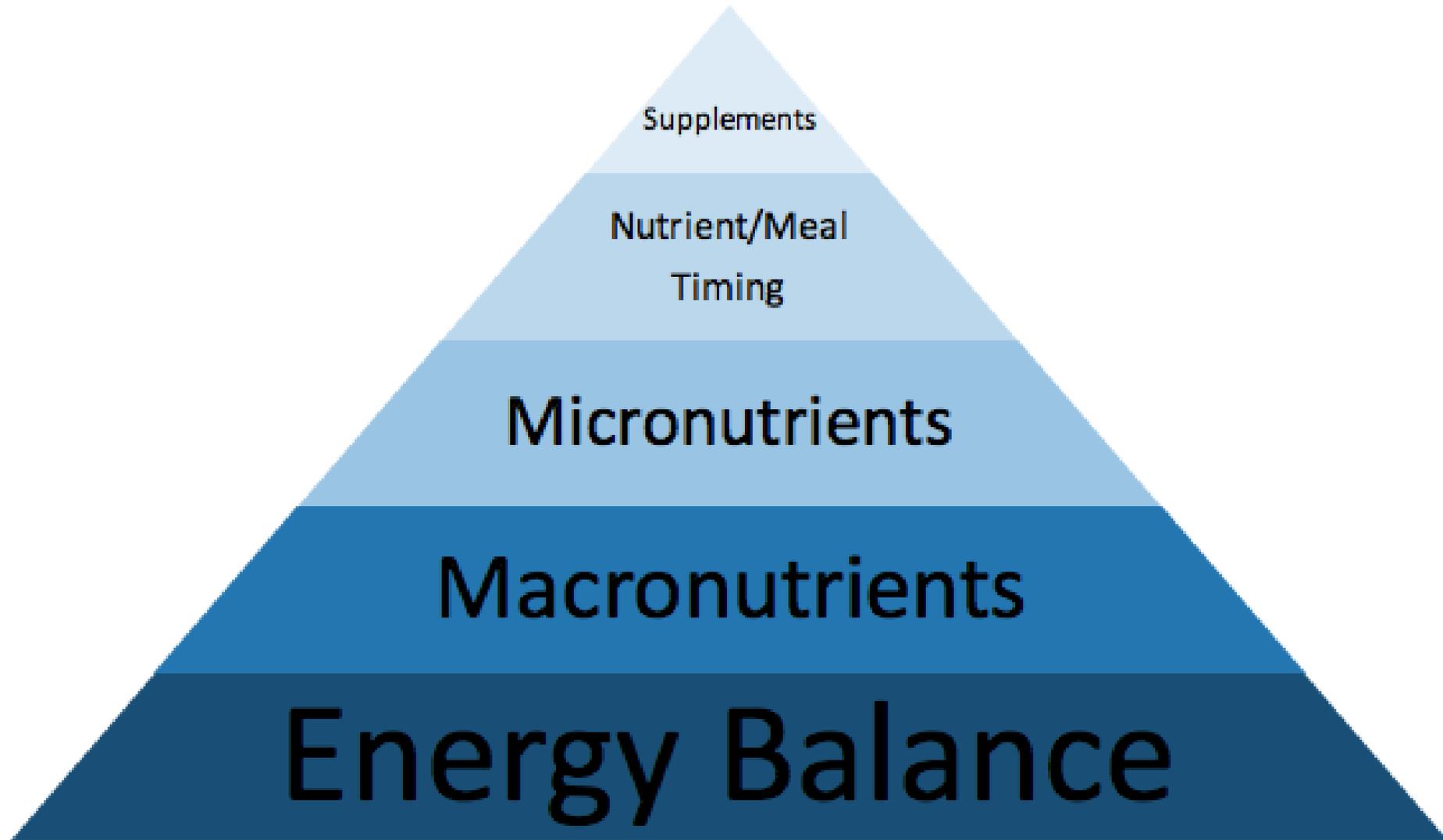
- Provide adequate macronutrients and micronutrients to optimize healing and recovery (protein, fat, carbs, vitamins, minerals)
- Maintain a healthful relationship with food and body image
- Maintain consistent high-quality intake throughout the day
  - *Understanding hunger & healing needs*

# Special Considerations

- Surgical trauma, fever, infection
  - *Increased carbohydrate and protein needs to repair damaged tissues*
- Nutrition intake prior to injury
  - *Low energy availability (amenorrhea, stress fractures, poor bone health)*
  - *Poor diet quality (overall balance, vitamins and minerals)*
  - *Inconsistent intake (disordered eating)*

# Food & Body Relationship

- The biggest barrier to optimal fueling is the athletes fear of “getting fat”
  - *The body is the best calorie counter, responding appropriately to hunger/fullness cues is critical*
  - *Understanding changes in appetite (concussions, pain management)*
  - *Athletes are at high risk of developing eating disorders*
- Be mindful of “boredom eating”
- View food as fuel



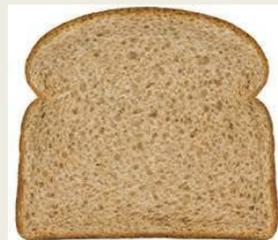
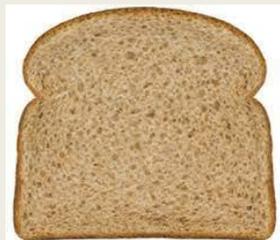
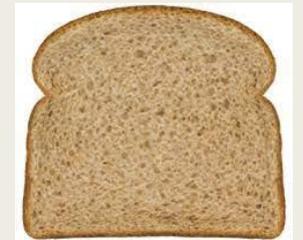
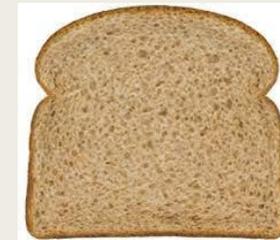
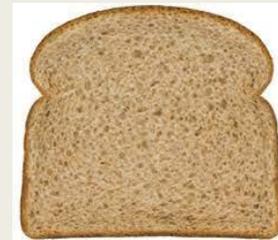
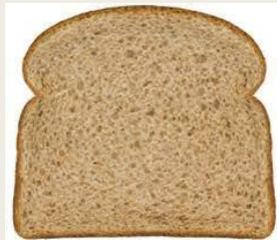
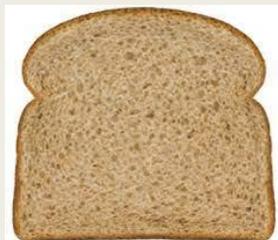
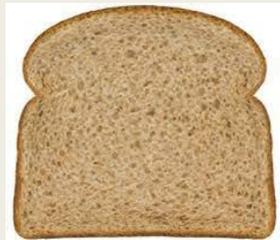
# Energy Balance

- Reduced activity leads to lower overall calorie burn
  - *Despite popular belief, the majority of the calories we eat are burned by our organs (brain, liver, lungs, kidneys, heart) just to stay alive, not our activity*
- "Unexercised muscles" shrink, but don't turn to fat
- Low energy availability puts an athlete at risk for recurrent injury/longer recovery times

# Nutrient Guidelines

- Minimum Carbohydrate

- *Carbohydrate RDA ~ 130 grams/day (minimum) (this number is based off the amount of carbohydrate required to provide the brain with adequate glucose)*



# Nutrient Guidelines

- Protein Guidelines (1.5-2.0 grams protein/kg – for a 150 lbs athlete 102-140 grams per day)
  - *Consistent intake throughout the day*
  - *To minimize muscle loss, consume 20-30 grams every 3-4 hours throughout the day (3 eggs, 1 cup cottage cheese, 1 cup Greek yogurt)*

# Nutrient Guidelines

## ■ Fat Guidelines

- *Consume adequate fat in order to absorb fat soluble vitamins (A,D,E,K).*
- *Minimum of 20% of calories coming from fat*
- *Fish and Plant sources make up the majority (avocado, fish oil, nuts, seeds)*
- *Include fat at every meal to increase satiety*

# Nutrient Guidelines

- Vitamins, Minerals and Supplements
  - *Anti-inflammatory*
    - Fish Oil (Omega-3 fatty acids) anti-inflammatory
    - Turmeric
  - *Multi-Vitamin - Consume a variety of colorful fruits and vegetables for their antioxidants and vitamin and mineral content.*
  - *Vitamin D3 – minimum of 1000-2000 IUS per day for maintenance*
  - *Iron – if suspect deficiency (low red meat intake) get blood levels checked*

# Nutrient Guidelines

## ■ Hydration Guidelines

- *Best way to monitor hydration is color of urine. Thirst is not a reliable indicator of hydration.*
- *With a reduction in sweat loss, eliminate sports drinks which may help reduce overall calories*

# AM I HYDRATED?

## Urine Color Chart

1		If your urine matches these colors, you are drinking enough fluids
2		Drink more water to get the ideal color in Shade 1 and 2.
3		Dehydrated
<hr style="border: 2px solid red;"/>		
4		You may suffer from cramps and heat-related problems
5		Health risk! Drink more water.
6		Health risk! Drink more water.
7		Health risk! Drink more water.
8		Health risk! Drink more water.

# Summary

- To enhance healing and recovery, choose a variety of high-quality foods.
- Assess the cause and outcome. Does nutrition need to be assessed at a higher level to avoid recurring injury.
- Discuss food as fuel with athletes. Avoid demonizing certain food groups.
- Allow athletes to trust their bodies and the healing process by developing a healthy relationship with food.
- There's no “magic bullet” to enhance recovery.