



# SPORTS NUTRITION

## The Athlete Plate (s): *Educating and Feeding Olympians*

Alicia Kendig, MS, RD, CSSD

USOC Sports Dietitian

USOC Sports Nutrition Department



**UNITED STATES OLYMPIC COMMITTEE**

# Team USA Sports Nutrition Department

Jennifer Gibson



Combat &  
Acrobat

Alicia Kendig



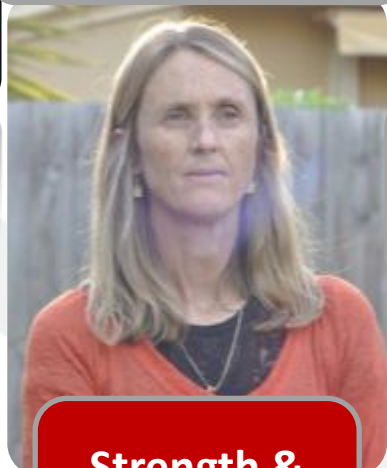
Strength &  
Power

Shawn Dolan



Team &  
Technical

Susie Parker-  
Simmons



Strength &  
Power

Nanna Meyer



Strength &  
Power



UNITED STATES OLYMPIC COMMITTEE

# USOC Sportfolios

- Combat and Acrobat
- Team and Technical
- Strength and Power
  - Winter
  - Summer
- Endurance (Boats and Paddles)
- Paralympic



**UNITED STATES OLYMPIC COMMITTEE**

# The Sports Dietitian

- Board Certified Specialist in Sports Dietetics
  - RD, CSSD
- Best athlete support
  - Interdisciplinary work
    - USOC Service Providers
      - Psychology, Strength and Conditioning, Technology, Sports Medicine
    - Local Sport Dietitians
  - International Sport Dietitians
    - [www.pinesnutrition.org](http://www.pinesnutrition.org)



**UNITED STATES OLYMPIC COMMITTEE**

# What we do:

- Athlete Nutrition/Hydration Assessments
- Team/Athlete Travel Support
- Travel Nutrition Planning/Education
- Meal Planning
- Food Service/Dining Hall Nutrition Integration
- Work with USOC Sponsors to support Team USA

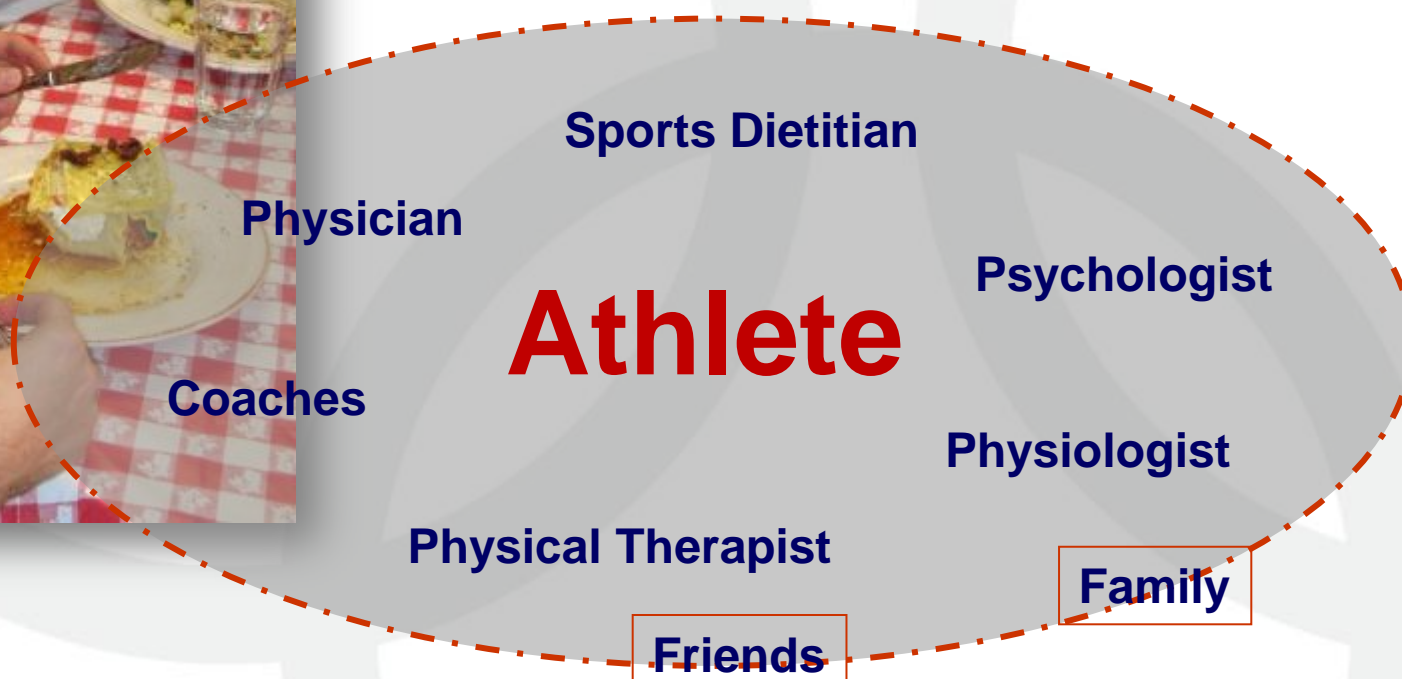


**UNITED STATES OLYMPIC COMMITTEE**



# Interdisciplinary Integration

Interdisciplinary work



**UNITED STATES OLYMPIC COMMITTEE**

# Our Team USA Athletes

- As young as 14, as old as 50+
- Living/Training Environment
  - Home
  - College
  - Apartment/House
  - ??
- Level of Nutrition/Culinary Knowledge



**UNITED STATES OLYMPIC COMMITTEE**

# Periodized Training → Periodized Nutrition!



Easy

Moderate

Hard

Competition

Recovery

Adjustment:  
Energy  
Macronutrients  
Micronutrients  
Fluids  
Supplements

Yearly Plan – Monthly Plan – Weekly Plan

Weight Management, Environmental Factors, Individual areas...



**UNITED STATES OLYMPIC COMMITTEE**



# Nutrition for Health, Fitness, and Performance



**Health**



**Fitness**



**Performance**

Adjustment:  
Energy  
Macronutrients  
Micronutrients  
Fluids  
Supplements

Yearly Plan – Monthly Plan – Weekly Plan

Weight Management, Environmental Factors, Individual areas...

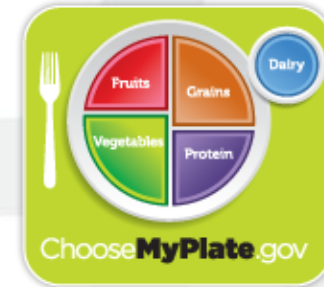


**UNITED STATES OLYMPIC COMMITTEE**

# Exercise Meals:

## *Performance, Health & Weight Management*

- USDA MyPlate
  - [www.choosemyplate.gov](http://www.choosemyplate.gov)
- Volumetrics
  - [www.volumetricseatingplan.com](http://www.volumetricseatingplan.com)



**UNITED STATES OLYMPIC COMMITTEE**

# Athletes' Plates

**EASY TRAINING / WEIGHT MANAGEMENT:**

**FATS**  
1 Teaspoon

**Water**  
Dairy/Nondairy Beverages  
Diluted Juice  
Flavored Beverages

Coffee  
Tea

**Whole Grains**  
Pasta  
Rice  
Potatoes  
Cereals  
Breads  
Legumes

**Fruits & Veggies**  
Raw Veggies  
Cooked Veggies  
Veggie Soups  
Fresh

**Lean Protein**  
Poultry  
Beef/Game/Lamb  
Fish  
Eggs  
Low-Fat Dairy  
Soy (e.g., Tofu, Tempeh)  
Legumes/Nuts

Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter

**MODERATE TRAINING:**

**FATS**  
1 Tablespoon

**Water**  
Dairy/Nondairy Beverages  
Diluted Juice  
Flavored Beverages

Coffee  
Tea

**Grains**  
Pasta  
Rice  
Potatoes  
Cereals  
Breads  
Legumes

**Lean Protein**  
Poultry  
Beef/Game/Lamb  
Fish  
Eggs  
Low-Fat Dairy  
Soy (e.g., Tofu, Tempeh)  
Legumes/Nuts

**Fruits & Veggies**  
Raw Veggies  
Cooked Veggies  
Veggie Soups  
Fresh

Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter

**HARD TRAINING / RACE DAY:**

**FATS**  
2 Tablespoons

**Water**  
Dairy/Nondairy Beverages  
Diluted Juice  
Flavored Beverages

Coffee  
Tea

**Grains**  
Pasta  
Rice  
Potatoes  
Cereals  
Breads

**Lean Protein**  
Poultry  
Beef/Game/Lamb  
Fish  
Eggs  
Low-Fat Dairy  
Soy (e.g., Tofu, Tempeh)  
Legumes/Nuts

**Vegetables**  
Cooked Veggies  
Veggie Soups  
Raw Veggies

Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter

**FLAVORS**  
Salt/Pepper  
Herbs  
Spices  
Vinegar  
Salsa  
Mustard  
Ketchup

*Collaboration between USOC Sport Dietitians  
And UCCS Sport Nutrition Graduate Program*

# Team USA : Athlete Plates

The screenshot shows the Team USA website's navigation menu with links for HOME, SPORTS, U.S. PARALYMPICS, NEWS, ATHLETES, and SHOP. Below the menu is a breadcrumb trail: HOME > ABOUT THE USOC > ATHLETE DEVELOPMENT > SPORT PERFORMANCE > NUTRITION > RESOURCES & FACT SHEETS. The main heading is 'Resources & Fact Sheets'. A sub-section titled 'Printable Resources and Handouts' includes a paragraph: 'The professional nutrition specialists at the U.S. Olympic Committee have put together a variety of informational materials for athletes, coaches, and parents. In this section you can find access to these materials to learn more about sport-specific diet, travel nutrition, and eating guidelines.' Below this is a row of five images: an avocado, a blue water bottle, a female athlete in a red and white leotard, a plate of colorful vegetables, and a white mug of coffee. A 'General Nutrition Guidelines' section lists several topics: Athlete Eating Guidelines (Athlete Plates - Easy Day, Athlete Plates - Moderate Day, Athlete Plates - Hard Day), Dietary Fat and Cholesterol, Eating Breakfast, Hydration, Reading Food Labels, Recovery Nutrition, Sport Drinks, Sport Nutrition Products, The Vegetarian Athlete, and Travel Nutrition - General Guidelines. On the left sidebar, there is a 'Resources & Fact Sheets' button, 'USOC Sports Dietitians in the News', 'Professional Team', and a 'JOIN THE TEAM USA SOCIETY MAKE AN IMPACT TODAY' banner with a 'Donate' button.



## General Nutrition Guidelines

- Athlete Eating Guidelines
  - Athlete Plates - Easy Day
  - Athlete Plates - Moderate Day
  - Athlete Plates - Hard Day
- Dietary Fat and Cholesterol
- Eating Breakfast
- Hydration
- Reading Food Labels
- Recovery Nutrition
- Sport Drinks
- Sport Nutrition Products
- The Vegetarian Athlete
- Travel Nutrition - General Guidelines

<http://www.teamusa.org/About-the-USOC/Athlete-Development/Sport-Performance/Nutrition/Resources-and-Fact-Sheets.aspx>



**UNITED STATES OLYMPIC COMMITTEE**

# Pre-Exercise Meals: *Health & Weight Management*

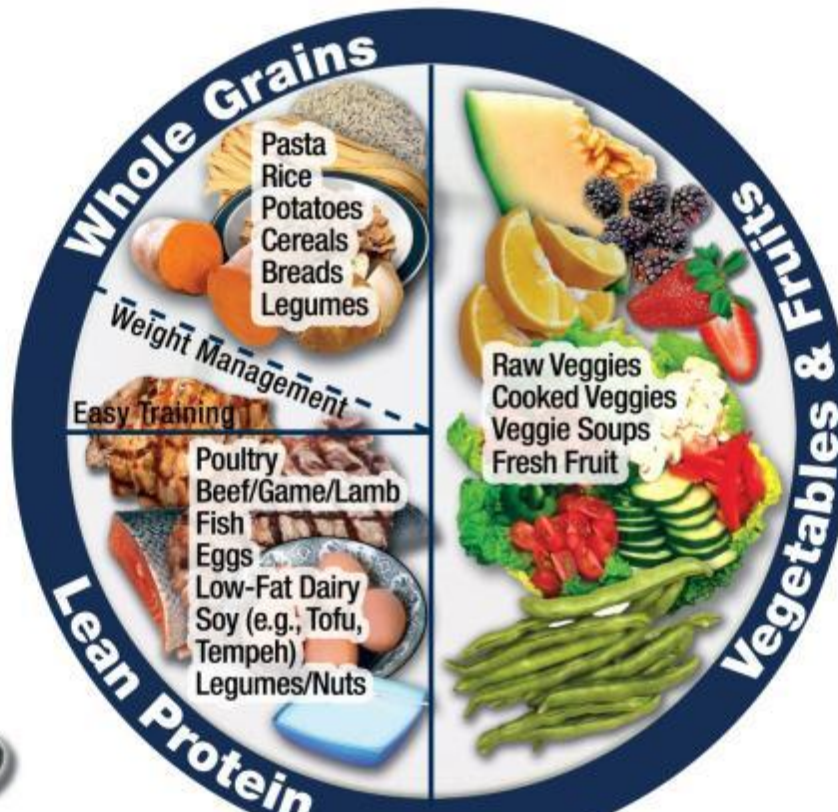
## EASY TRAINING / WEIGHT MANAGEMENT:

### FATS

1 Teaspoon



Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter



### FLAVORS

Salt/Pepper  
Herbs  
Spices  
Vinegar  
Salsa  
Mustard  
Ketchup



*Collaboration between USOC Sport Dietitians  
And UCCS Sport Nutrition Graduate Program*

# Examples: Easy Training Plate

- Breakfasts

- Yogurt Parfait

- Plain Greek yogurt
- Fresh seasonal fruit
- Granola sprinkles

- Veggie Omelet

- Local eggs
- Spinach
- Goat cheese
- Olive oil
- Crispy Rye bread

- Lunches

- Athlete Salad

- Dark greens
- Seasonal veggies
- Fresh fruit/dried fruit
- Black beans
- Grilled tilapia
- Olive oil, balsamic

- Open faced turkey or hummus sandwich

- Seasonal veggies on side
- Fresh fruit & nuts

*Timing*



2-4 hrs



**EXERCISE**

# Pre-Exercise Meals:

## *Fitness & Moderate Training*

### MODERATE TRAINING:

#### FATS

1 Tablespoon



Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter



#### Grains

Pasta  
Rice  
Potatoes  
Cereals  
Breads  
Legumes



Fresh Fruit  
Stewed Fruit  
Dried Fruit



Water  
Dairy/Nondairy  
Beverages  
Diluted Juice  
Flavored  
Beverages



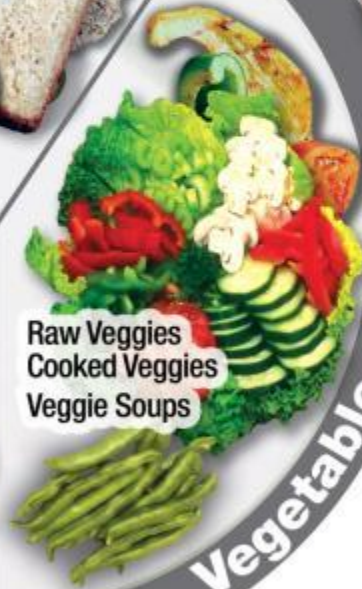
Coffee  
Tea

#### Lean Protein

Poultry  
Beef/Game/Lamb  
Fish  
Eggs  
Low-Fat Dairy  
Soy (e.g., Tofu,  
Tempeh)  
Legumes/Nuts



Raw Veggies  
Cooked Veggies  
Veggie Soups



#### Vegetables

#### FLAVORS

Salt/Pepper  
Herbs  
Spices  
Vinegar  
Salsa  
Mustard  
Ketchup



*Collaboration between USOC Sport Dietitians  
And UCCS Sport Nutrition Graduate Program*

# Examples: Moderate Plate

- Breakfasts

- Hot cereal

- 9-grain cereal cooked in milk/soy milk
- Seasonal fruit or berries
- Greek yogurt

- Poached Eggs Florentine

- Poached free range eggs
- Spinach & tomatoes
- Olive oil
- Whole grain toast

- Lunches

- Sandwich Box

- Whole grain sandwich w/ turkey, mustard, cucumber, cranberry
- Seasonal raw veggies
- Fresh seasonal fruit

- Stir Fry

- Free range chicken stir fry
- Seasonal veggies
- Brown rice
- Fresh seasonal fruit

*Timing*



2-4 hrs



**EXERCISE**



# Pre-Exercise Meals: *Performance Training Load*

## PERFORMANCE PLATE:

### FATS

2 Tablespoons



Avocado  
Oils  
Nuts  
Seeds  
Cheese  
Butter



### Grains

Pasta  
Rice  
Potatoes  
Cereals  
Breads



Fresh Fruit  
Stewed Fruit  
Dried Fruit



Water  
Dairy/Nondairy  
Beverages  
Diluted Juice  
Flavored  
Beverages



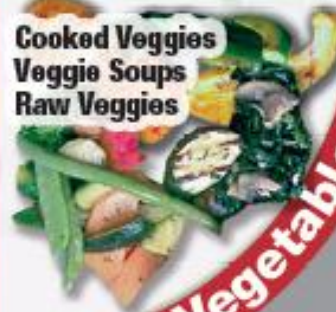
Coffee  
Tea

### Lean Protein

Poultry  
Beef/Game/Lamb  
Fish  
Eggs  
Low-Fat Dairy  
Soy (e.g., Tofu,  
Tempeh)  
Legumes/Nuts



Cooked Veggies  
Veggie Soups  
Raw Veggies



### Vegetables

### FLAVORS

Salt/Pepper  
Herbs  
Spices  
Vinegar  
Salsa  
Mustard  
Ketchup



*Collaboration between USOC Sport Dietitians  
And UCCS Sport Nutrition Graduate Program*

# Examples: Performance Plate

- Breakfasts
  - Oatmeal & Eggs
    - Cooked in organic milk/soy milk
    - Apple sauce
    - Honey
    - Toast w/ eggs and salsa
  - Oatmeal Pancakes
    - Pancakes w/ oats
    - Seasonal fruit
    - Syrup, butter
    - Smoothie w/ kefir & frozen berries
- Lunches
  - Sandwich box
    - Sonoran white wheat bread, turkey, mustard, lettuce/tomato
    - Minestrone
    - Apple sauce
    - Honey grahams
  - Pasta bowl
    - White, al-dente pasta
    - Sautéed carrots, zucchini
    - Pan seared white fish, chicken or turkey
    - Apple sauce

*Timing*



2-4 hrs



**EXERCISE**

# Fueling Strategies

## Before/PREPARE!

Sport drink  
Sport bar  
Bread/jam  
Oatmeal  
Banana

## During/OPTIMIZE!

Sport drink  
Gels  
Blocs  
Sport bar  
Breads, rice balls

## Post/RECOVER!

Sport drink  
Sport bar  
Smoothie  
Flavored milk  
Yogurt

### **EASY TRAINING**

- 1 session/day
- Technical/skill-based training
- Cross-training
- Weight loss
- Recovery/off-season



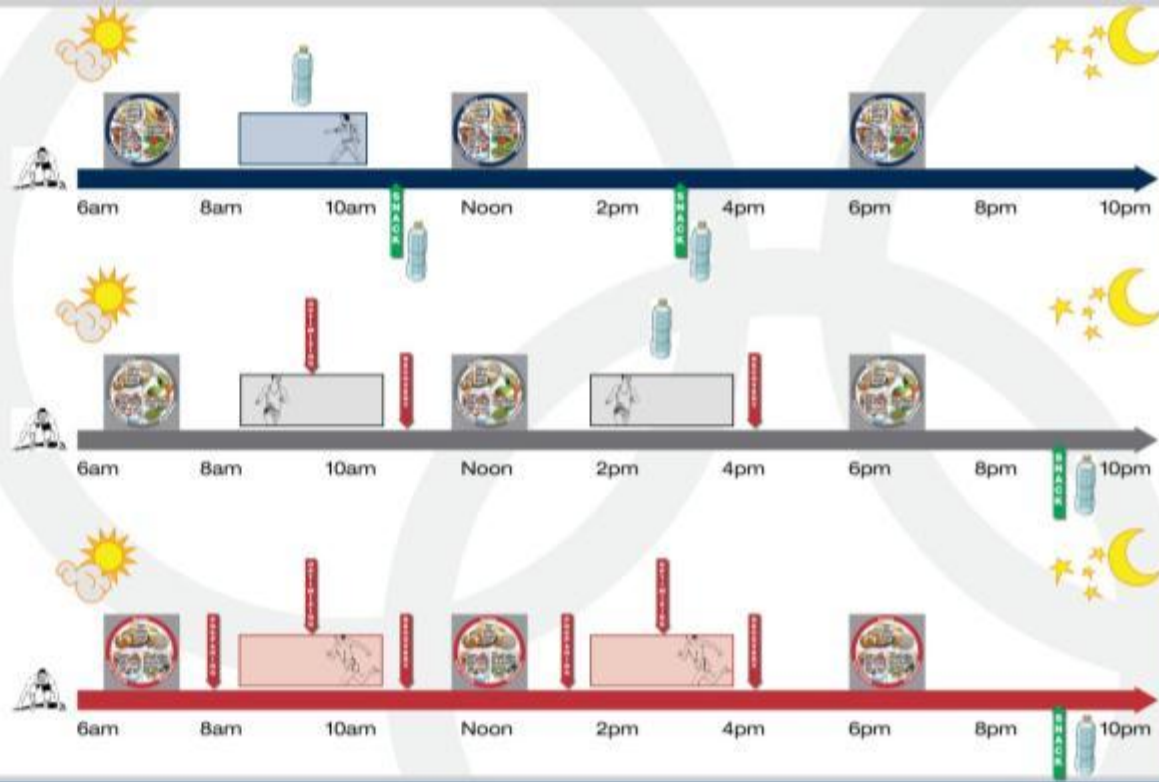
### **MODERATE TRAINING**

- 1-2 sessions/day
- Technical/skill-based training
- 1 cross-training session
- 1 moderate to hard training with longer recovery



### **HARD TRAINING**

- 2 or more sessions/day
- High volume/intensity
- Heavy lifting
- Altitude training
- Race or trials
- Intense training periods



# Summary & Conclusion

- Athlete Plates are just one tool to use, as part of a comprehensive nutrition plan.
- Fueling before, during and after exercise requires knowledge and awareness of training load.
- For most situations, exercisers can use water and their meals to prepare for and recover from a workout. Athletes may need more.
- For weight management, a higher protein intake is recommended to preserve muscle mass under energy restriction.
- Size of the plate, or the amount of calories needs to be educated on an individual level



**UNITED STATES OLYMPIC COMMITTEE**

# Additional Education & Skill Building



- Shopping
- Growing and cooking food
- **Pantry Inventory!**
- Buying seasonal/local



**UNITED STATES OLYMPIC COMMITTEE**

**\*Newly Launched\***

# **USOC Sports Dietitian Registry**

- Purpose: To have an available roster of pre-screened sport dietitians as resources for National Governing Bodies of Olympic, Paralympic, and Pan American Sports”
- Entrants must be:
  - Registered dietitian w/ CSSD
  - Minimum two years of experience working with Olympic, collegiate, professional or competitive recreational athletes
  - Liability insurance and willingness to enter into an consulting contract
  - Master’s degree or higher in nutrition or exercise science (or similar e.g. IOC diploma sport nutrition)
  - Two professional references within the field of sport
  - Excellent presentation and communication skills
  - Time available
- Willingness to provide initial four hours of service pro bono



**UNITED STATES OLYMPIC COMMITTEE**

# \*Newly Launched\*

## USOC Sports Dietitian Registry

Access by going to: [www.teamusa.org](http://www.teamusa.org)

- Choose "About the USOC" tab
- Select "Athlete Development"
- Choose "Sport Performance"
- Then "Nutrition"
- Last, select "Sport Nutrition Registry"



**USOC**  
SPORTS NUTRITION



**UNITED STATES OLYMPIC COMMITTEE**

**\*Newly Launched\***

# **USOC Sports Dietitian Registry**

- Purpose: To have an available roster of pre-screened sport dietitians as resources for National Governing Bodies of Olympic, Paralympic, and Pan American Sports”
- Entrants must be:
  - Registered dietitian w/ CSSD
  - Minimum two years of experience working with Olympic, collegiate, professional or competitive recreational athletes
  - Liability insurance and willingness to enter into an consulting contract
  - Master’s degree or higher in nutrition or exercise science (or similar e.g. IOC diploma sport nutrition)
  - Two professional references within the field of sport
  - Excellent presentation and communication skills
  - Time available
- Willingness to provide initial four hours of service pro bono



**UNITED STATES OLYMPIC COMMITTEE**