Nutritional Strategies for Optimizing Winter Sport Athlete Health

Liz Broad PhD & Jacque Scaramella CSSD
Senior Sport Dietitian / Contract sport dietitian
U.S. Paralympics
Outline

• Risks of illness in Paralympic winter athletes
• Nutritional strategies used on a day to day basis to protect immune function
• Specific nutrition strategies Team USA have used for PyeongChang
Risk of illness in winter sport athletes

• Training loads
• Cold environments (increased energy expenditure)
• Frequent travel for competition in winter season
• For some events, need to achieve lean body composition to optimize performance
• Low vitamin D status over winter
Additional factors for Paralympic athletes

- Understanding of energy requirements
- Hydration – e.g. sit skiers on hill
  - Decreased drive to drink in cold
- Risk of UTI during travel in those who self-catheterize
- Hygiene – hands on wheelchairs, no hands, visual impairment
Long term nutritional strategies

- Sufficient calories to match training loads
- Rich in vegetables, fruit and whole grains
- Hydration and electrolytes
- Probiotic and prebiotic rich diet
- Protection of brain – fish oils & vitamin D
- Education on what increases risk of illness & how to counteract with timing and periodization of nutrition
- Minimum annual screening for vit D, iron and other parameters with supplementation as required
Pre Departure Travel Pack

• Probiotics

• Electrolytes – consider using on plane to support effective hydration

• Hand sanitizer

• Multivitamins
Flight, arrival and during games

• Flight – reinforced sleep plan, hydration, use of disinfecting wipes
  • Meal and snack plan for entirety of travel day
• Hydration testing (first morning USG) on selected days including day after arrival
• “Sick packs” – vitamin C and zinc for anyone with start of cold symptoms
Food for thought......

• Bring a sport dietitian with your team!!