
Advanced Certificate in Sports Injury Prevention and Management

Nutrition and Performance

Advanced Certificate in Sports Injury Prevention and Management: A professional certification designed to equip fitness professionals, coaches, and healthcare providers with the knowledge and skills to prevent and manage sports injuries.

Aerobic exercise: Physical activity that uses large muscle groups and increases heart rate and oxygen consumption for a sustained period. Examples include running, swimming, and cycling.

Anabolic window: A term used to describe the period after exercise during which the body is thought to be particularly receptive to nutrient consumption for muscle recovery and growth.

Carbohydrate loading: A strategy used by endurance athletes to maximize glycogen stores in the muscles before a competition. It involves consuming a high-carbohydrate diet in the days leading up to the event.

Creatine: A naturally occurring compound found in muscle cells that helps supply energy for short-term, high-intensity activities such as weightlifting or sprinting.

Dehydration: A condition that occurs when the body loses more fluids than it takes in, leading to a decrease in the body's water content.

Electrolytes: Minerals such as sodium, potassium, and calcium that help regulate nerve and muscle function, hydration, and pH balance in the body.

Energy expenditure: The amount of energy used by the body during physical activity, resting, or digestion.

Ergogenic aids: Substances or techniques used to enhance athletic performance, such as creatine, caffeine, and energy drinks.

Exercise intensity: The level of effort required during physical activity, often measured in terms of heart rate, power output, or perceived exertion.

Flexibility: The range of motion available at a joint or group of joints.

Food allergy: An abnormal immune response to a food protein, resulting in symptoms such as hives, swelling, and difficulty breathing.

Food intolerance: An adverse reaction to a food that does not involve the immune system, such as lactose intolerance.

Glycemic index: A measure of how quickly a carbohydrate-containing food raises blood sugar levels.

Hydration: The process of providing the body with sufficient fluids to maintain optimal function.

Macronutrients: The three main types of nutrients required by the body for energy and growth: carbohydrates, proteins, and fats.

Micronutrients: Vitamins and minerals required by the body in small amounts for various functions, including immune function, bone health, and energy production.

Muscle imbalances: Differences in strength, flexibility, or range of motion between opposing muscle groups, which can lead to injury and reduced performance.

Nutrient density: The amount of nutrients provided by a food relative to its calorie content.

Nutrient timing: The practice of consuming nutrients at specific times to optimize athletic performance, recovery, and overall health.

Overtraining syndrome: A condition characterized by a decrease in performance, fatigue, and increased risk of injury due to excessive training without adequate rest and recovery.

Periodization: The systematic planning of training cycles to optimize athletic performance and minimize the risk of injury.

Protein quality: A measure of the completeness and digestibility of a protein source, often assessed using the Protein Digestibility Corrected Amino Acid Score (PDCAAS).

Resting metabolic rate: The amount of energy used by the body at rest to maintain basic functions such as breathing and heart rate.

Sports drinks: Beverages designed to replenish fluids, electrolytes, and carbohydrates during or after exercise.

Supplements: Products containing nutrients or other substances designed to enhance athletic performance, health, or well-being.

Training volume: The total amount of work completed during a training session or period, often measured in terms of distance, time, or repetitions.

Vitamins: Organic compounds required in small amounts for various functions in the body, including energy production, immune function, and bone health.

Weight management: The process of maintaining a healthy body weight through a balance of calorie intake and physical activity.

Whole foods: Foods that are unprocessed or minimally processed, often found in their natural state, such as

fruits, vegetables, and whole grains.