

## SOURCES OF ENERGY

### GLUCOSE

- The body breaks down most carbohydrates from the foods we eat and converts them to a type of sugar called glucose
- Glucose is the main source of fuel for our cells. Body first uses blood glucose for energy, but uses it up quickly

### GLYCOGEN

- When the body needs a quick boost of energy or when the body isn't getting glucose from food, glycogen is broken down to release glucose into the bloodstream to be used as fuel for the cells
- The body relies on muscle glycogen (clumps of glucose stored in liver and muscles) for energy – MORE GLYCOGEN = MORE ENERGY – MORE GLYCOGEN = BETTER ATHLETIC PERFORMANCE
- Glycogen Depletion (1 – 30 sec. sprint can deplete up to 35% of your glycogen) (Second and third Period Crash)
- How do you store more glycogen? 1) Consistent carbohydrate levels in daily diet 2) Consume carbohydrates before workout

## TYPES OF FUEL

### CARBOHYDRATES

- Carbs are an athlete's main source of energy
- Carbs are required to replenish glycogen stores during training and performance. Since carbs are the body's **primary fuel source for higher intensity activity**. If an athlete doesn't eat enough carbs, the body will use fat and muscle mass for energy, which isn't ideal
- Carbs should be at least 45 percent to 60 percent of a hockey player's daily calorie intake, according to National Strength and Conditioning Association nutrition guidelines
- Healthy carbs include: whole grain bread, pasta and cereal, oatmeal, fruits, and vegetables
- Unhealthy Carbs – candy, soda, and other man-made foods loaded with artificial sweeteners and flavors

### PROTEIN

- Protein is required to build and maintain muscle
- As an athlete it is important to replenish protein stores at every meal, particularly after an intense workout
- Types of Healthy Protein – meat, dairy (milk/cheese/yoghurt), eggs, nuts and nut butter, protein shakes

## FAT

- Are essential for vitamin and mineral absorption and brain function
- Types of Good Fats – Nuts, Avocados, Coconut Oil, Fish
- Types of Bad Fats - Hydrogenated and Trans fats (generally in chemically processed foods)

## WHAT SHOULD A HOCKEY PLAYER EAT?

### BREAKFAST

- You must refuel your body – the level of glycogen in your body is considerably lower in the morning
- Kick starts your day and keeps you alert
- Enhances mental performance
- Speeds up metabolism
- Hydration is also important at breakfast

### PRE AND POST-GAME MEALS

- Pregame meal should be heavy in carbs and lean protein (hydrate)
- Listen to your body...know your how long you need to digest
- Post- game meals should be rich in protein. You have an optimal “window” of 30 minutes to 90 minutes in which to most effectively replenish protein you used during intense exercise

### HYDRATION

- Your body is 60 % water and losing only 1% of this water is dehydration
- When you lose 2% of your bodies water mental performance and physical coordination become impaired
- Dehydration can quickly lead to a drop-in performance, because your heart doesn't pump as much blood and your muscles get less oxygen and can start cramping
- Electrolytes are minerals in your blood and other body fluids that carry an electric charge
- Electrolytes affect the amount of water in your body, the acidity of your blood (pH), and your muscle functions
- You lose electrolytes when you sweat, so you need to put them back in with sports drinks, salt and proper diet

### REST, SLEEP, AND RECOVERY

- You need at least 8 hours of sleep
- Many studies say teen-agers need up to 11 hours!

**PLAYER ASSIGNMENT: FOOD JOURNAL**

- For five (5) days, record all food items consumed, including amounts consumed. Note the time of day
- Compare your journal to the diet recommended for athletes. How do your nutritional habits compare?