PRE-GAME PREP FOR WINNING PERFORMANCE

"Good nutrition accounts for 50% of my performance, with 40% being mental and 10% being physical."

- Five-time Ice Hockey Olympic Medalist, Hayley Wickenheiser (Team Canada)

There are several factors involved in a winning performance and one is the pre-game routine. A pre-game routine includes nutrition, physical, and mental preparation. Each works together to ensure the mind and body are in the best possible state to compete.

CREATING A PRE-GAME ROUTINE

Some players already have a pre-game routine they follow. Just putting your gear on in the same order, or never washing your Under Armour for luck isn't the ONLY component of a pre-game routine. Here are a few tips to get you started creating a routine that works for you.

NUTRITION: Hockey is a high-intensity, anaerobic activity, and hockey players expend a tremendous number of calories in practice and in competition. Understanding the energy system demands of the sport allows you to be able to make proper decisions regarding what nutrients fuel those energy systems and how you can create the best strategy for optimal performance.

The fuel source for hockey players - glycogen (the form in which carbohydrates are stored in the body) and phosphocreatine (a source of energy in muscle contraction) - require optimal carbohydrate and protein intake. Fueling the body at frequent, regular intervals with appropriate amounts of food will enhance strength, speed and stamina.

So what's the best fuel source? Carbohydrates! When it comes to achieving top performance, carbohydrates are your best friend! They give your muscles energy. Protein and fat are more difficult to break down and are, therefore, not readily accessible for your muscles to use as an energy source. Carbs provide the energy hockey players need for quick sprints, powerful shots, and endurance.

Healthy examples of high carbohydrate foods to eat before a game are:

- Bagel with peanut butter
- Cereal with milk
- Fruit with whole grain toast
- Banana
- Beans/hummus with vegetables or pita bread
- Fruit smoothie
- Sandwiches on whole wheat or multi-grain bread
- Cereal bars
- French toast
- Homemade muffin and a fruit

Players should never step on the ice feeling hungry. You need to time your pre-game meal so that most of the food is out of the stomach and broken down by the body by the time you hit the ice.

If you have an early morning game, don't skip eating. Prepare the night before and have something on the list above to make sure that you have high quality fuel in your tank.

If the game is 3 hours away, you can have a larger meal that is 75% carbohydrates (rice, pasta, vegetables, fruit, etc.) and 25% protein (chicken, eggs, beans, etc.). The closer you get to game time, the smaller and "lighter" the meal should be, meaning that you want to have less fat and protein and focus more on carbohydrates.

Hydration is just as important!

Players should hydrate well throughout the day as water is the essential element in building and repairing muscle. It's imperative to make sure the body is hydrated all the time. The water you drink during the day is what your body will use in the game, not the water you drink during the game. The chart above shows the negative implications of dehydration on athletic performance:

% OF WEIGHT LOSS	COMMON EFFECTS OF DEHYDRATION ON THE BODY
1 – 2	• Increase in core body temperature
3	• Significant increase in body temperature with aerobic exercise
5*	• Significant increase in body temperature with definite decrease in aerobic ability and muscular endurance • Possible 20-30% decrease in strength and anaerobic power • Susceptibility to heat exhaustion
6	• Muscles spasms and cramping
10+	• Excessively high core body temperature • Susceptibility to heat stroke • Heat injury and circulatory collapse with aerobic performance

*With a 5% body weight loss, an athlete will need at least five hours to rehydrate.

PHYSICAL: A pre-game dynamic warm-up gets your body and mind fired-up and ready for competition, improves performance and reduces the risk of injury. The warm-up exercises should be geared towards getting the body moving in ways comparable with the demands of your sport. It should result in body temperature rising as heart rate increases, allowing the major muscle groups to feel "loose," functional, and ready for an intense workout.

One common mistake I see in hockey is athletes performing a warm-up that doesn't get their muscles warm and includes too many static stretches. Static stretching involves minimal movement and does not properly prepare the body to perform at peak potential in a hockey game. An effective dynamic warm-up will prepare the body by improving coordination, balance, stability, stamina, movement efficiency, dynamic flexibility, and focus.

This usually consists of 20-30 minutes of various warm-up exercises such as a stationary bike, light jog and/or other quick feet exercises such as a ladder or running around cones. Players may also opt into doing a group ball kick to sharpen eye/hand/foot coordination.

Though you warm up before putting your gear on, it is also important to do another quick warm-up right before you go on the ice. Simple exercises that are easy to do with gear on are leg swings in all directions and shoulder circles. With experience and some experimenting, all players will figure out what they need to do to be ready to play their best, so experiment, find your formula and perform!

MENTAL: To start the mental process, think about how you feel when you play your best and then commit to a routine to get you to that place every time you play.

Most players, whether they know it or not, engage in visualization or focus techniques. When you're thinking about the game, about scoring, about saving a goal, you are visualizing/focusing. The key to visualization and focus is to keep it simple, don't overwhelm your mind; if you are thinking too much you won't be able to react. Preparing the mind for play is as important as the body.

We would like to hear about your PRE-GAME ROUTINE. Please post it on our Facebook page for a chance to win Red Wings tickets. www.facebook.com/MichiganSportsSpineCenter

- DR. JEFF S. PIERCE