Hydration needs

Just as nutrition effects on-field performance, so too does hydration. Dehydration equivalent of just 2% of your body weight can impair mental and physical performance on or off the field. Water is also what helps you digest food. Without proper hydration, you will not be able to properly digest or absorb your pre-game meal. This ultimately denies your body some of the key nutrients that it needs to perform.

Effects of dehydration

- Weakness and fatigue
- Dizziness and headache
- High heart rate
- Cramping
- Nausea and vomiting
- Chills
- Decreased performance
- Thirst with dry mouth, lips or throat

Two to four hours before the game - typically when you are eating your pre-game meal - you should consume approximately 16-20 oz of water. This will aid in digestion, and help retain the fluid for later use.

To calculate your specific hydration needs:

- Convert your weight to kilograms by dividing by 2.2
    - (1 kg = 2.2 lbs)
- Take your weight in kilograms and multiply by 7
    - (It is recommended that you consume 5-7 mL of water per kg of bodyweight)
- Divide that number by 237
    - (237 mL = 8oz)
- Multiply by 8 to convert to ounces

Shortly before the game, when you would ideally be having your pre-game snack, you should consume another 8oz of water. This will aid in the digestion of your snack, and give you some very important last minute fuel before hitting the field.

During the game, there are a couple of things to take into consideration..

1. How much you should be drinking
2. What you should be drinking

For optimal performance, you should be consuming 6-10 ounces of water every 10-20 minutes that you are active. This will help replace all of the water that is being lost through perspiration and expiration.

If you are consuming a sports drink, you must be mindful of the carbohydrate concentration. A concentration of up to 8% can help improve performance by maintaining blood glucose levels and providing your body with additional fuel and electrolytes. Concentrations exceeding 8% have been shown to impair performance by slowing the rate at which the stomach empties.

Common sports drinks

Gatorade	6%
PowerAde	6%
PowerBar endurance drinks	7%

General guidelines for determining if you need a sports drink…

0-45 minutes: Sports drinks are not needed.

45-90 minutes: Sports drinks have been shown to improve performance in high intensity activities lasting 1 hour or more. Intermittent activities usually require less, while continuous exertion such as distance running can require more. Carbohydrate needs: 0-30 grams per hour.

Greater than 90 minutes: A sports drink is recommended. Appropriate carbohydrate consumption is 30-60 grams per hour.

Most workouts and recreational activities do not *require* a large amount of carbohydrates or electrolytes. In these cases, water or low calorie sports drinks are often far better options.

Once the game is over, it is important to continue consuming water or sports drink to aid recovery and the digestion of your post-game meal. Within two hours (the sooner the better) you should consume 24 ounces of water or sports drink for every pound of body weight lost. If you choose to consume a sports drink, the calories should be considered as part of your post game or post exercise meal.