Teaching this lesson? Here are some tips:

*Tight on time? Stick with the 3 Key Takeaways and The Basics. These will help your athletes understand the importance and basics of proper hydration.*

*Have more time? Share the TrueSport Talk and discuss how an Olympic athlete can relate to this lesson.*

*Extra time? Continue on through to Tips & Applications for more valuable hydration information to share with your group.*

*Looking for more? Explore the Downloads & Additional Resources, which offer additional conversation starters and fun hands-on activities to support each lesson.*
What does staying hydrated do for your body?

Proper hydration is critical for athletes that want to feel and perform their best. Water is the easiest and most affordable way to hydrate, and it:

- Improves athletic performance and reduces recovery time
- Helps every system in the body function better
- Minimizes risk of injury and muscle cramping
- Better regulates the body’s temperature

Among many other benefits. Conversely, when an athlete becomes dehydrated they experience:

- Headaches, fatigue, and loss of concentration
- Joint and muscle pain
- Muscle cramps
- Nausea and vomiting
- Dizziness and weakness

And many other symptoms which can all compromise performance and impair cognitive functioning.
Multi-time Paralympic alpine skier Tyler Carter has long days on the slopes. He tries to pay attention to how much water he consumes in a day and drinks water before he feels thirsty, especially during more intense practice or competition days. When he has really depleted himself in a workout or competition, he will drink sports drinks to replace the electrolytes and carbohydrates he lost. Tyler knows it is easy to forget to drink enough water during a long practice or competition day, especially when you’re having fun and not paying attention to your thirst, so he highly recommends athletes carry a water bottle with them through the day or keep their bottle in a location they will visit often throughout the day.

Water makes up 60 percent of a person’s body weight and every system in the body relies on water to function. Hydration is critical to optimal performance and successful athletes, like Tyler, understand the importance of hydration before, during, and after exercise. Water provides the easiest and most affordable means for hydration, while sports drinks can also help release electrolytes and carbohydrates.

If Tyler didn’t hydrate, he knows he would experience dehydration quickly. Dehydration is scientifically defined as a water deficit of 2-3 percent of a person's body weight and occurs when the body is deprived of fluids resulting from sweating, illness, medication use, and neglecting to drink water. Dehydration can compromise performance and impair brain function. Food provides nearly 20 percent of a person’s total water intake, so for Tyler, getting in different fruits and vegetables like watermelon and tomatoes helps keep him hydrated!

TrueSport athletes take hydration very seriously and chose to drink the right fluids at the right time to hydrate for peak performance.

AMBASSADOR STORY QUESTIONS

1. What was the main point you took away from the ambassador story?

2. What is the difference between drinking water and drinking sports drinks? What are examples of times you would consider drinking one over the other?

3. Besides your coach providing water breaks, how can you take responsibility for your own hydration while playing sports and in your normal everyday life?
Hydration 101

Athletes lose water through four ways in particular. When experiencing any of them, it’s especially important to be rehydrating.

Long Exercise: Exercising for hours (like in endurance sports) means an even greater need to replace lost fluids, electrolytes, and nutrients. For these instances, sports drinks designed to replace the sodium lost through sweat can also be helpful.

Sweating: Some athletes sweat more than others. If an athlete sweats a large amount, they are at greater risk for dehydration. Encourage athletes (if they can) to weigh themselves before and after practice, and to drink at least 2-3 cups of water per pound lost during exercise.

Temperature: Exercising in the heat increases the amount of fluid lost through sweating. Exercising in the cold can impair the ability to recognize fluid loss and increase the amount of fluid lost through respiration. In both cases, it’s important to hydrate.

High altitude: Exercising at higher altitudes increases fluid loss and the need to drink more water.

How Much To Drink

Staying hydrated isn’t rocket science, but there are some general rules of thumb that will help athletes stay properly hydrated before, during, and after exercise:

Before exercise: Drink 16 ounces of fluid two hours before physical activity and another 8-16 ounces 15 minutes prior to exercising.

During exercise: Every 15-20 minutes, drink at least 4 to 6 ounces (about two to three big gulps) of fluid during vigorous exercise. Amounts may be less for moderate exercise.

After exercise: Drink 6 to 24 ounces of fluid for every pound lost during physical activity. Drinking rehydrating beverages like sports drinks and eating watery foods such as fruits and vegetables can help replace lost fluids and electrolytes.
There are many symptoms of dehydration that athletes should learn to look out for: nausea, headaches, feeling fatigued, vomiting, muscle cramps, increased temperature and heart rate, and a general decrease in athletic performance.

But there’s an easier, more pain-free way for athletes to tell if they are hydrated: the urine test. Encourage athletes to monitor the color of their urine throughout the day. By the afternoon, their urine should be of a light lemonade color. Anything darker is a sign that the athlete needs to drink more water.
Be sure to check out these additional resources available for download:

**Chalk Talk (PDF)**
15-minute activity: Test your athletes’ knowledge about hydration by leading a discussion with these conversation starters.

**Review Handout (PDF)**
10-minute quiz: Test your athletes’ knowledge of hydration best practices with this quick review (answers included).

**TrueSport Certificate (PDF)**
Handout: Celebrate your groups’ completion of the TrueSport Hydration lesson with this special certificate.
In order to reinforce the lesson and put TrueSport into action, do the following Chalk Talk with your athletes.

Instructions

After covering some of the basic facts about hydration and the ways in which athletes lose water during exercise, lead a discussion with some of the following questions:

Suggested Questions:

1. Can you provide an example of a time you were dehydrated and the symptoms you experienced?

2. When is it important to hydrate?

3. Can you name ways that athletes lose water while exercising?

4. How can the outside temperature affect hydration and water loss?

5. What does the color of your urine say about your hydration level?

6. How much fluid should you drink before, during, and after exercising?

7. How can food help you stay hydrated?
Print copies of this quiz and have athletes answer individually, or read the questions aloud and then discuss the answers as a group.

As you discuss the answers, be sure to emphasize that different people have different hydration needs. Much like proper nutrition, there is no ‘one size fits all’ approach to hydration, but instead just some general guidelines that will serve most athletes well.

### Answers

1. **Light lemonade**
2. **Thirst**
3. **75 (150 / 2)**
4. **Soda; sugar**
5. **Dehydration**
6. **Intoxication**
7. **Sweating; breathing**
8. **Watermelons; tomatoes**
9. **Gulps**
10. **20**
Hydration: Review

Hydrating before, during, and after exercise is important for achieving peak performance, healthy everyday living, and preventing dehydration. Every athlete’s hydration needs are a little different, but there are some general guidelines you can follow to help you reach an appropriate amount of fluid intake throughout the day.

Use the word bank below to fill in the blanks on the follow hydration tips. Not all words will be used.

**Word Bank**

<table>
<thead>
<tr>
<th>Dehydration</th>
<th>20</th>
<th>Soda</th>
<th>Bottles</th>
<th>Watermelons</th>
<th>Thirst</th>
<th>Breathing</th>
<th>100</th>
<th>Gulps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light lemonade</td>
<td>Intoxication</td>
<td>Tomatoes</td>
<td>Pretzels</td>
<td>75</td>
<td>Sweating</td>
<td>Sugar</td>
<td>Hydration</td>
<td></td>
</tr>
</tbody>
</table>

TIP 1: By the middle of the day, your urine should look like ________________.

TIP 2: Do not rely on ___________ to tell you when you need to drink more water.

TIP 3: If an athlete weighs 150 pounds, they should drink at least ________ ounces of water throughout the day.

TIP 4: Sweet drinks like ___________ should be avoided when trying to hydrate. So should energy drinks, which contain stimulants and ___________.

TIP 5: Throwing up, headaches, dry mouth, muscle cramps, and feeling extra tired are all symptoms of ____________.

TIP 6: Drinking too much water (liters and liters rather quickly) is dangerous and can result in a condition called hyponatremia, or water ____________.

TIP 7: Exercising in the heat increases the amount of fluids you lose through ____________, while exercising in the cold increases the amount of fluids you lose through ____________.

TIP 8: Many fruits and vegetables, like ____________ and ____________ are made up of over 90% water.

TIP 9: During exercise, taking two to three large ____________ every 15-20 minutes is a great way to stay hydrated.

TIP 10: Food provides nearly ____________% of your suggested water intake throughout the day.
Congratulations! You have demonstrated that you know how to be a TrueSport Champion!

TrueSport, powered by the U.S. Anti-Doping Agency (USADA), is a movement that seeks to ensure a positive youth sport experience for athletes like you. In learning how to stay hydrated, you have gained skills to be a leader both on and off the field.