

Hydration During Training or Competition

The purpose of rehydrating is to replace the carbohydrates, electrolytes and fluid that the body loses or has lost during exercise. This is exactly what the body needs for proper hydration before, during and after physical activity.

AVOID GETTING AN IV ON RACE DAY!

STEP 1 – PREVENT DEHYDRATION:

- Maintain proper hydration, fluid and mineral balance through out your yearly training cycle. Choose a sports drink, such as, CeraSport or CeraSport EX1 with a very low osmolarity of <150 mOsm to help. Many sports drinks are sugary with osmolarity at 375 mOsm. Juices also are high in sugar.
 - * Maintain hydration (quick yet sustained!)
 - * Restore fluid and electrolytes
 - * Correct acidosis
- All beverages consumed prior to a race on race day should have an osmolarity that is <300mOsm or <6% carbohydrate. This equates to 8 grams of carbohydrate per 100 mL (about 4 oz).
- When consuming gels or other solid foods during a race make it a point to drink an adequate amount of water. Drinking water will help to ensure optimal absorption, and help to avoid possible negative GI consequences. Check sugar levels in both gels and drinks – too much sugar can cause cramping and nausea.
- Stay hydrated during the race. It is recommended to consume 4-8 ounces every 15 to 20 minutes when exercising for more than one hour.
- Drink enough to feel strong, and have light-colored urine flow every 2 to 3 hours (frequently).
- Drink before you feel thirsty! Once you are thirsty, you may already be mildly dehydrated.

STEP 2 – SIGNS AND SYMPTOMS OF DEHYDRATION:

- Increased body temperature
- Impaired performance
- Heat cramps, chills, nausea, clammy skin, rapid pulse, 20-30% decrease in endurance capacity
- Gastrointestinal problems, heat exhaustion, dizziness, headache, dry mouth, fatigue
- Heat stroke, hallucinations, no sweat or urine, swollen tongue, high body temperature, unsteady walk

STEP 3 – CORRECT DEHYDRATION:

- Be alert, proactive and self-responsible if you start to notice early signs and/or symptoms of dehydration during the race. Keep replacing your fluids lost during the race by drinking CeraSport and/or water along the course.

Oral Hydration vs. IV Hydration

If you start experiencing signs and/or symptoms of **SERIOUS** dehydration, which may include:

Thirst	Nausea
Headaches	Muscle Cramps
Chills	GI Disturbance
Decreased Respiration	Dark Colored Urine
Dry Mouth	Head Rushes
Skin Flushing	Decreased Sweating
Increased Heart Rate	Fatigue/Weakness
Dry Skin	

CeraSport should prevent most dehydration issues, but **CeraLyte ORS** is also available for any severe cases of dehydration.

- **CeraLyte ORS** is a medical rehydration drink, designed primarily for preventing dehydration from diarrhea and vomiting, but is an option for individuals who may be so dehydrated that it is difficult to insert an IV or for individuals who would rather sip an oral solution than have a needle inserted for IV therapy. **CeraLyte ORS** is a stronger electrolyte replacement drink compared to CeraSport, and is intended for **serious** rehydration.
- ORS needs to be administered early! If this is not done when the beginning signs and/or symptoms of dehydration are noticed, then severe complications and weakness may present; followed by fatigue, collapse, intravenous therapy and a possible hospitalization.

SUMMARY:

1. **Prevention:** stay hydrated!
2. **Awareness:** notice early signs and symptoms of dehydration during the race.
3. **Correction:** take the appropriate steps to correct mild to moderate dehydration during the race, and prevent having an IV (intravenous therapy) which is painful, expensive and can cause other complications.

Why choose CeraSport?

The rice syrup blend or rice syrup solids used in Cera's products are unique due to a patented process, which provides short, medium, long and very long chains of carbohydrate.

As the body systematically breaks down the rice-based carbohydrate, gluten-free **CeraSport** provides both quick and sustained hydration over time. Additionally, the rice-based carbohydrate is easily absorbed, has a low peak glucose impact and a less aggressive insulin response compared to sugar based sports drinks. These factors help to avert abdominal cramping, nausea and vomiting.

Hydrate with CeraSport & CeraSport EX1 during the Race:

- * Maintains hydration
- * Restores fluid and electrolytes
- * Provides quick and sustained hydration through a mixed-chain carbohydrate
- * Corrects acidosis

For more information, contact Charlene Riikonen, Cera Products, Inc. at 843.842.2600
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