Dehydration and Oral Rehydration Solutions
Healthcare Professional Clinical Guide

Hydralyte®
Clinical Hydration. Rapid Results.

Electrolyte Powder

Electrolyte Solution

Hydralyte Rapidly replaces fluid and electrolytes
Dehydration

Dehydration is the significant depletion of body water and electrolytes that results from increased fluid loss, decreased fluid intake, or both.

Mild to moderate dehydration is commonly defined as 2-6% of body weight loss through fluid.

Fluid Regulation

Fluids, solutes, nutrients, and waste products are constantly shifting within the body’s compartments. Water is moved as needed within these compartments, thus enabling the body to function optimally:

- When water loss is severe, the amount of water in the bloodstream decreases. Water will move from inside the cells into the bloodstream until it can be replaced through increased fluid intake.
- When the body has excess water, the amount of water in the bloodstream increases. Water will move from the bloodstream and into the cells.

To maintain euhydration, water intake must equal water loss. Fluid imbalance occurs when there is a fluid deficit or fluid surplus.

**FLUID DEFICIT**
- Active fluid loss: vomiting, diarrhea, excessive sweating
- Inadequate fluid intake: poor thirst mechanism, mobility issues (i.e. in seniors)
- Regulatory mechanism failure: renal impairment, medical conditions, medications

**FLUID SURPLUS**
- Excess fluid intake without electrolyte replacement
- Regulatory mechanism failure, medical conditions

Fluid imbalance can be associated with dehydration, hyponatremia, heat cramps, heat exhaustion, and heat stroke.

Signs & Symptoms of Dehydration

**MILD**
- Increased thirst
- Sticky, dry mouth
- Dark yellow urine
- Decreased urine output
- Reduced sweating

**MODERATE**
- Fatigue/lethargy
- Irritability
- Dizziness
- Headaches
- Loss of Skin Elasticity
The Science of ORS

An oral rehydration solution (ORS) must meet two criteria:

1. OPTIMAL BALANCE OF SODIUM AND GLUCOSE
   The activation of the sodium-glucose cotransporter in the small intestine allows for rapid absorption of water. Sodium and glucose bind to the symporter and are transferred into the cell while water moves by osmosis. Sodium, glucose, and water are then transported out of the cell and into the blood to hydrate the body.

2. HYPOTONICITY
   A hypotonic solution allows for effective rehydration while minimizing potential side effects such as a feeling of fullness/bloating.

Water alone or sugary drinks (i.e. soda or sports drinks) do not contain the correct balance of sodium and glucose to allow for rapid hydration.
Managing dehydration

Replacing lost fluid is key to managing dehydration. **Hydralyte** is scientifically formulated based on the World Health Organization criteria for oral rehydration therapy. Hydralyte contains the correct balance of glucose and electrolytes to allow for rapid and effective rehydration.

**Occasions for Use**

All Hydralyte products have usage directions for all ages.

- Vomiting and diarrhea
- Pregnancy
- Fever and heavy sweating
- Travel
- Clinical conditions
- Sport
- Heat and headache

**Hydralyte Formulation**

<table>
<thead>
<tr>
<th></th>
<th>Hydralyte based on solution</th>
<th>Sports drink</th>
<th>Pediatric electrolyte</th>
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</thead>
<tbody>
<tr>
<td>Sodium (mg/L)</td>
<td>1060</td>
<td>457</td>
<td>1035</td>
</tr>
<tr>
<td>Sodium (mEq/L)</td>
<td>45–60</td>
<td>12–23</td>
<td>45</td>
</tr>
<tr>
<td>Potassium (mg/L)</td>
<td>860</td>
<td>127</td>
<td>792</td>
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<td>Potassium (mEq/L)</td>
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<tr>
<td>Chloride (mg/L)</td>
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<td>(not declared)</td>
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<tr>
<td>Chloride (mEq/L)</td>
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<td></td>
<td>35</td>
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<tr>
<td>Sugar (g/L)</td>
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<td>58</td>
<td>25</td>
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<tr>
<td>Sugar (oz/L)</td>
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<td>2.1–2.6</td>
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<tr>
<td>Osmolality (mOsm/L)</td>
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<td>Isotonic</td>
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<tr>
<td>Calories per L</td>
<td>80</td>
<td>237</td>
<td>100</td>
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</tbody>
</table>

**Questions?** Email us at info@hydralyte.com