

Oral Electrolyte Solutions for Calves

What makes a good Oral Electrolyte Solution (OES)?

- 1) An **alkalinizing agent** is essential to correct metabolic acidosis:
 - **Acetate** and **propionate** are best because they also produce energy when metabolized, stimulate sodium and water absorption and inhibit growth of Salmonella and other bacteria
 - Bicarbonate is a weaker agent and doesn't have additional benefits
- 2) **Sodium** to replace lost electrolytes and aid hydration.
- 3) Agents that facilitate intestinal **sodium and water absorption** (ie. glycine, acetate or glucose)
- 4) **Energy** to correct hypoglycemia. Note: milk will always have more energy than an OES, but some energy is necessary until the next milk feeding.
- 5) Encourage **healthy GI** to discourage microbial growth. The low pH in healthy stomachs and GI keep live E coli and Salmonella levels low. Healthy GI's have increased resistance to GI infections.

Products Available

Best	Acceptable	Do Not Use!
These products use the right amount of the best alkalinizing agents	These either use a lot of the weaker alkalinizing agent (bicarb) or not enough of the stronger ones (acetate, propionate)	These have either no alkalinizing agent or bicarbonate (weak alkalinizing ability)
Epic - acetate Diaque - acetate and bicarbonate Land O Lakes Electrolyte WITH the ADD Pack - acetate Bluelight Replenish - acetate. Revibe - acetate	Enterolyte - bicarbonate Hydralyte - acetate, good for routine use in healthy calves	No alkalinizing agent: Resorb, Bovine Bluelite, Blue Ribbon, One Day Response, Vilec-Sol, Renew, Calf Restart One-4, Bluelite C, Magna-Lyte, Vedalyte Powder, Sav-A-Calf, Comeback Bicarbonate only: Advance Arrest, Deliver, Revitilyte, DVM Formula

Feeding Instructions:

- 1) Feed **2 extra meals** of OES separately from milk to sick calves, 1 extra meal is ok
- 2) Offer OES at the first sign of scours and continue until it resolves, about 6-8 days
- 3) Don't mix OES with milk, even if the label says you can, calves need the extra fluids, too!
- 4) It's ok to skip 1 milk meal while giving OES, but they need milk within 12 hours

Ingredients to avoid in any product:

- Psyllium - form of dietary fiber used in humans and cats/dogs. Thought to slow abomasal emptying in calves, studies show it doesn't work
- Rice-Based - commonly used in human medicine, induces severe diarrhea in calves!