

### Characteristics of HiPP ORS 200 Apple:

- ✓ suitable for infants from 4 months and toddlers
- ✓ pleasant taste of natural ingredients
- ✓ no added sweeteners and flavouring
- ✓ no added lactose
- ✓ no added milk protein
- ✓ gluten-free
- ✓ ready to drink – convenient use



**List of ingredients:** water 83%, apple juice 16%, maltodextrin, iodized table salt, potassium citrate, acidity regulator citric acid



**HiPP ORS 200 Apple was developed according to ESPGHAN criteria for ORS:**

To compensate loss of liquid and electrolytes in case of diarrhoea

	HiPP ORS 200 Apple	ESPGHAN ORS <sup>2,3,4</sup>
Osmolarity (mOsm/l)	240	225 - 260
Sodium (mmol/l)	60	50-60
Glucose (mmol/l)	78	74 - 111
Potassium (mmol/l)	20	20
Citrate (mmol/l)	9	10
Chloride (mmol/l)	61	60

# HiPP ORS 200 Apple

## Apple-based Oral Rehydration Solution



HiPP ORS 200 Apple is an alternative to our established product HiPP ORS 200 Carrot and Rice.

**Literature:**

- 1 Pieścik-Lech et al. Acta Paediatrica 2012; 101:e458-e464
- 2 Guarino et al. J Pediatr Gastroenterol Nutr 2014; 59: 132-152
- 3 Sandhu. J Pediatr Gastroenterol Nutr 2001;33: S36-39
- 4 Guarino et al. J Pediatr Gastroenterol Nutr 2001;33: S2-12





### Acute gastroenteritis (AGE) is a common problem in infants and toddlers.

- The incidence is between 0.5 to 2 episodes per child and year in children <3 years in Europe<sup>2</sup>.
- The course of the disease is usually mild in Europe<sup>2</sup>.
- It is associated with a substantial number of hospitalizations<sup>2</sup>.



### ESPGHAN/ESPID\* recommends<sup>2</sup>

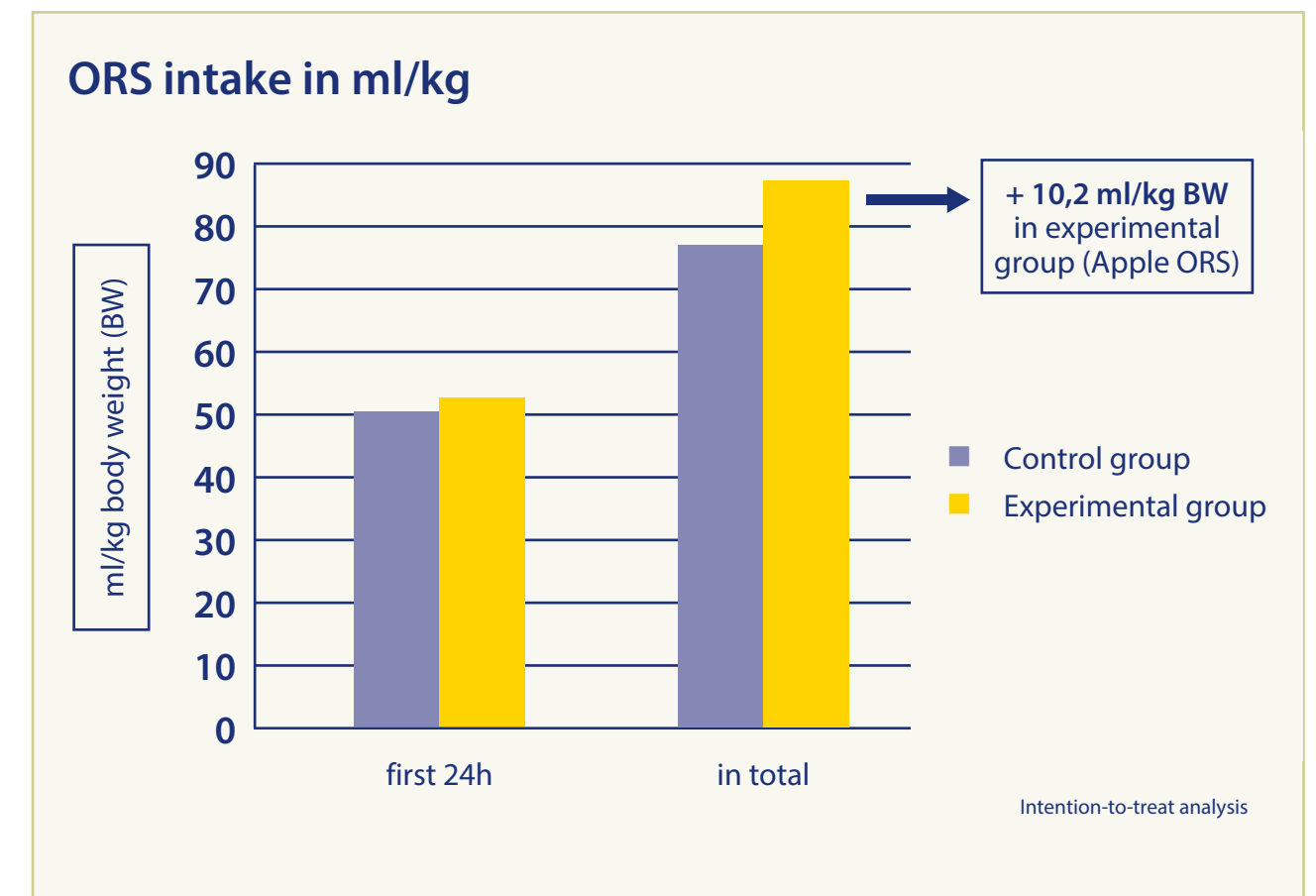
- oral rehydration as a „first-line therapy“ in children with AGE.
- hypo-osmolar ORS with sodium 50-60 mmol/l (ESPGHAN ORS).
- rehydration should be started as soon as possible.

## Study Apple ORS

Efficacy and safety of the Apple ORS <sup>1</sup>	
Design	double-blind, randomised, controlled
Participants	n = 147 Children with AGE with mild to moderate dehydration (3 - 9 % loss of body weight)
Age of children	4 to 48 months
Intervention period	7 days after AGE was diagnosed
Control group	Standard ESPGHAN ORS
Experimental group	Apple-based ORS
Outcomes	<p><b>Primary:</b> Proportion of successfully rehydrated children (including the following parameters: resolution of signs of dehydration, adequate weight gain and production of urine)</p> <p><b>Secondary:</b> ORS intake, weight gain, vomiting, unscheduled intravenous therapy, return to the emergency department within a week, duration of diarrhoea, hospitalization, adverse events</p>

**Result:** The Apple ORS is as safe and effective as the established standard ESPGHAN ORS<sup>1</sup>.

The experimental group (Apple ORS) had the tendency to consume higher amounts of ORS.



► Apple ORS as a attractive variety of flavour.