

# Disappointing Data

Common nutritional interventions that are considered standard of care in formula-fed babies with failure to thrive (FTT) or undernutrition fall short of expert guidelines, patients' needs, and your standards:



**Concentrating formula**

**Today's standard of care**

**Fortifying formula**

Either option can fail to produce a balance of nutrients & tolerability your patients desperately need

## Concentrating formula

Can add too much. And not enough.

### Excessive, concerning osmolality

AAP

recommends:

Do not exceed<sup>1</sup>

**450** mOsm/kg

Concentrating standard formula to  $\geq 27$  kcal/fl oz

Can result in<sup>2</sup>

**>500** mOsm/kg

Did you know?

In a survey:

**53% of dietitians**

worried about high osmolality when feeding hospitalized infants with FTT<sup>3</sup>

### Insufficient protein and energy

Infants may not receive the increases in energy and protein that experts recommend; protein:energy ratio may also be inadequate

Infants with FTT need more calories than concentrated standard formulas deliver.

According to experts, infants with FTT need

**50%** more calories than healthy infants<sup>4,5</sup>

But concentrated standard formulas typically provide

**35%** or fewer extra calories

with no volume increase, 20 to 27 kcal/fl oz, which is rarely exceeded<sup>3</sup>

When concentrating standard formula, the percentage of energy from protein doesn't increase.

WHO experts recommend

**9-12%** of energy from protein to support lean tissue gain<sup>6</sup>

But concentrated standard formulas typically provide

**~8%** of energy from protein

Did you know?

In a survey:

**94% of dietitians**

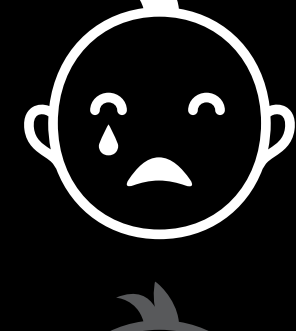
worried about suboptimal protein when feeding hospitalized infants with FTT<sup>3</sup>

WHO = World Health Organization

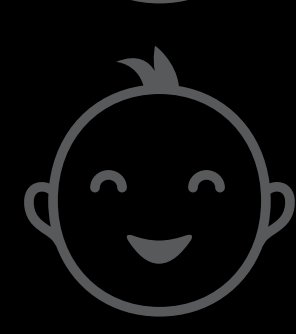
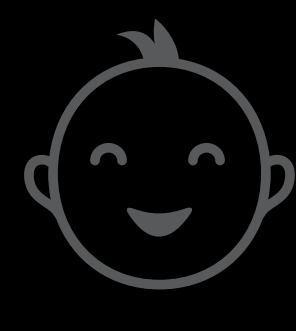
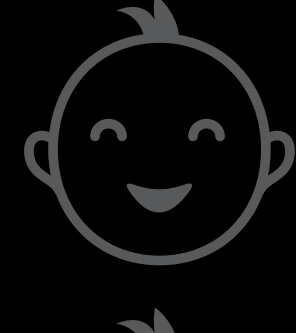
### Concentrating formula doesn't always increase energy intake<sup>7</sup>



**2 in 5** infants



with FTT had a decrease or no increase in energy intake from concentrated formula (even at 30 kcal/fl oz)<sup>7</sup>



**13%** decreased energy intake

(27-31% less energy) (P<0.02)

**27%** maintained energy intake

(no significant change)

**60%** increased energy intake

(23-93% more energy) (P<0.02)

The authors suggest one reason "could be the increase in osmolality," noting that these infants could benefit from "an iso-osmolar, high-energy-density formula."<sup>7</sup>

## Supplementing energy

Falls short in too many ways

### Inadequate nutrients to support growth

A survey found adding modulars to add calories is common in the US.<sup>3</sup> But a 6-week clinical trial found that adding energy is inferior to using a formula tailored for infants with FTT:<sup>†8</sup>

✓ **BUN dropped** below reference

(median 3.0 at baseline down to 1.6; reference: 1.7-6.7; p=0.005)

✓ **Significantly lower** nutrient intakes

(12-30% less Na, K, Ca, Zn, Fe, vitamins A, C, D; p<0.001)

✓ **42% less** protein intake

(despite similar energy intake; median 2.0 g/kg/d vs. 3.7 g/kg/d; p<0.0001)

BUN = blood urea nitrogen

**Energy-supplemented formulas do not meet the protein needs of infants with FTT**



# It's time to elevate the standard of care

Fortini™ Infant helps deliver what term babies with FTT need to thrive – a 30 kcal/fl oz ready-to-feed formula that's as well-tolerated as 20 kcal/fl oz standard formula<sup>8-11</sup>

Coming summer 2021

Sign up to learn how we're leading the charge to help more infants flourish.

FTTnewstandard.com

\* Study of 15 infants over 3 days following 2-day washout on standard formula concentrated to 30 kcal/fl oz.<sup>†</sup>

† Trial of 49 infants randomized to receive standard formula supplemented with energy at 30 kcal/fl oz (control) or Fortini, a 30 kcal/fl oz ready-to-feed formula (test).<sup>8</sup>

References: 1. Committee on Nutrition; American Academy of Pediatrics. Pediatrics. 1976;57:278-85. 2. Third party laboratory testing of standard infant formulas commercially available in United States. Eurofins, Madison, Wisconsin. 3. Simental. J Pediatr Gastroenterol Nutr. 2020;71:S453(6B4). 4. American Society for Parenteral and Enteral Nutrition. In: The A.S.P.E.N. pediatric nutrition support core curriculum. 2015. 5. Hendricks. In: Manual of Pediatric Nutrition. BC Decker; 2005. 6. World Health Organization; Food and Agriculture Organization of the United Nations; United Nations University. Protein and amino acid requirements in human nutrition: report of a joint FAO/WHO/UNU expert consultation. 2007. 7. Khoshoo, et al. Eur J Clin Nutr. 2002;56:921-4. 8. Ciske, et al. J Hum Nutr Diet. 2007;20:329-39. 9. Cui, et al. JPEN J Parenter Enteral Nutr. 2013;42:195-204. 10. van Waarendburg, et al. Clin Nutr. 2009;28:249-55. 11. Scheffler, et al. JPEN J Parenter Enteral Nutr. 2020;44:348-54.

Fortini is a medical food for use under medical supervision for term infants from birth up to 18 months of age (or 19.8 lbs) with or at risk of growth failure, increased energy requirements, and/or fluid restrictions. Fortini is brought to you by Nutricia North America.

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