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[1]
450 mOsm/kg

Concentrating standard formula to ≥27 kcal/fl oz
Can result in[2]
>500 mOsm/kg

Did you know?
In a survey:
53% of dietitians
worried about high osmolality when feeding hospitalized infants with FTT[3]

AAP = American Academy of Pediatrics

Insufficient protein and energy

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

Did you know?
In a survey:
94% of dietitians
worried about suboptimal protein when feeding hospitalized infants with FTT[3]

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

According to experts, infants with FTT need
50% more calories than healthy infants[4,5]

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[3]

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[4]

But concentrated standard formulas typically provide
~8% of energy from protein

WHO = World Health Organization

Concentrating formula doesn't always increase energy intake[7]

2 in 5 infants with FTT had **a decrease or no increase** in energy intake from concentrated formula (even at 30 kcal/fl oz)[7]

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 osmolarity," noting that these infants could benefit from "an iso-osmolar, high-energy-density formula."[7]

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.[3] But a 6-week clinical trial found that adding energy is inferior to using a formula tailored for infants with FTT:[†6]

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

42% less
protein intake
(despite similar energy intake; median 2.0 g/kg/d vs. 3.7 g/kg/d, p<0.0001)

Significantly lower
nutrient intakes
(12-30% less Na, K, Ca, Zn, Fe, vitamins A, C, D; p≤0.001)

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

BUN = blood urea nitrogen

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[8-11]

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.[7]
† 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).[6]

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. Report No. 2015-0430-1. Somerset, NJ: Perfect Compliance of NJ; 2015. 3. Data on file. Nutricia North America. 4. Agostoni C, Buonocore G, Carnielli VP, et al; ESPGHAN Committee on Nutrition. Enteral nutrient supply for preterm infants: commentary from the European Society of Pediatric Gastroenterology, Hepatology and Nutrition Committee on Nutrition. J Pediatr Gastroenterol Nutr. 2010;50:85-91. 5. Kleinman RE, Greer FR, eds. Pediatric Nutrition. 8th ed. Itasca, IL: American Academy of Pediatrics; 2019. 6. Hendricks N. Manual of Pediatric Nutrition. 6C. Decatur, GSU. 6. Word 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;56:501-4. 8. Clarke, et al. J Hum Nutr Diet. 2007;20:329-39. 9. Cui, et al. JPEN J Parenter Enteral Nutr. 2018;42:196-204. 10. van Waardenburg, 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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