

A Novel Approach for Term Infants with Growth Failure: Clinical Data and Real-world Cases

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Learning Objectives:

- Recognize that poor growth is common in hospitalized infants with and without other medical problems
- Review the latest research on use of energy- and nutrient-dense formula (ENDF) to manage growth failure in infancy
- Explain when and how to use ENDF

Notes:

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Malnutrition: Strategies to maximize calories					
	Current US Practices for Infants with Growth Failure:				
	 Feed more volume, more often 	One or			
	 Concentrate formula powder 	options			
	 Use a 24-kcal or preterm formula 	combined			
	 Use a "base" formula then add supplements, fortifiers, and/or modular nutrients 	energy and protein targets			
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ENDF Uses

CLINICAL NEED SCENARIOS

Increased energy and protein requirements

Catch-up growth for infants with malnutrition (undernutrition)

Poor growth on current regimen

High protein/calorie needs + fluid restriction

Higher protein needs during illness

ENDF = energy- and nutrient-dense formula



ENDF - Literature			
ESPGHAN:	UK Consensus		
Guidelines for GI and nutritional complications	Pre-op Pathway for		
in children with neurological impairment	Infants with CHD:		
For infants offer human milk When formula is needed, consider: High-energy dense / Nutrient-dense formulas	Not growing well <120 mL/kg volume intake	Not growing High nutrition risk Tube fed <100 mL/kg volume intake	
as clinically indicated	Care plan B:	Care plan C:	
"for children with an	10% higher energy needs	10-20% higher energy needs	
increased energy requirement	30-50% higher protein needs	50-100% higher protein needs	
or poor tolerance of large	30-80% of	50-100% of	
volumes"	nutrition from ENDF	nutrition from ENDF	

































Transition Guidelines

GUIDELINES TO SUCCESSFULLY INTRODUCE ENERGY NUTRIENT DENSE FORMULAS (ENDF)

Infants <12 weeks of age:

Administer full strength formula and alternate with current feed or dilute to 24 kcal/oz and grade to full strength over 3 days to avoid frequent stools

Infants >12 weeks to 18 months:

Full strength and full transition from day 1

Alternate breast milk/breast feeding and ENDF feeding

















SUMMARY

- Malnutrition has serious implications for infants. It's critical to prevent, identify and resolve malnutrition in a timely and safe manner.
- ENDF provide optimal energy, protein, and micronutrients to support lean tissue gain for catch-up growth and support increased protein needs during critical illness.
- ENDF can help meet infant's nutritional needs without the risks seen with concentrating and fortifying with formula or modular



ENDF = energy- and nutrient-dense formula

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