

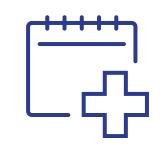
CONSEQUENCES OF FALTERING GROWTH

SHORT TERM



Impaired immune function: Increased risk of recurrent infections³

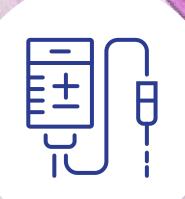
Poorer post-operative resilience⁴





Increased duration of mechanical ventilation⁴

Poor wound healing⁵



Gastrointestinal dysfunction⁶

Prolonged intensive care length of stay⁴

Delay of normal feeding development¹

Withdrawn behavior⁷





CONSEQUENCES OF FALTERING GROWTH

LONG TERM









Impaired cardiac function¹¹





Reduced cognitive achievements^{12,13}

Impaired lung

function¹⁴

Lower adult social status¹⁴



Reduced physical development¹⁵

Increased risk of overweight and obesity¹⁶



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ENERGY NUTRIENT DENSE FORMULA (ENDF) AS A DIETARY MANAGEMENT SOLUTION



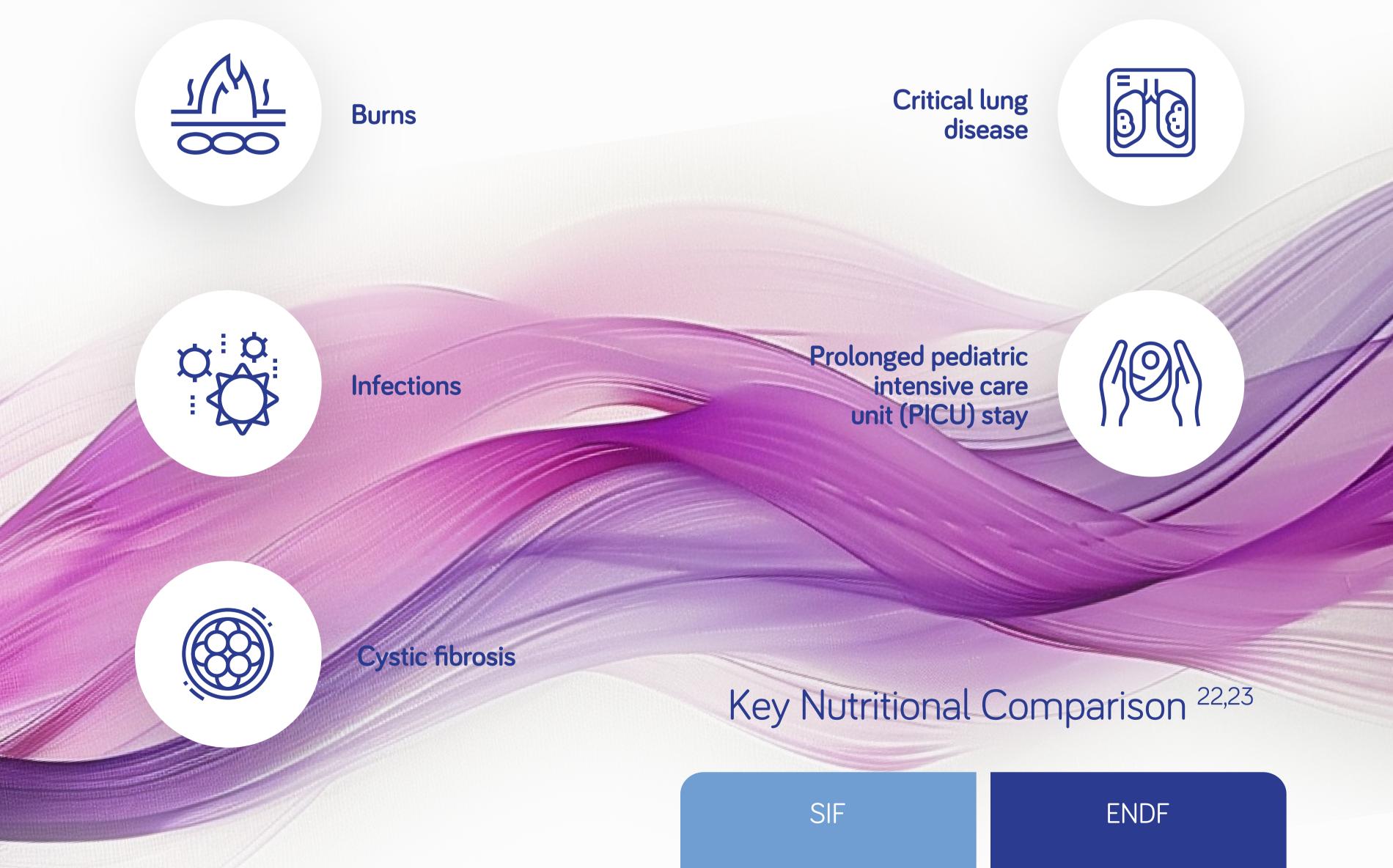


Trauma

Congenital heart disease









• 66 kc l/100 ml

• 1,3 g/100 ml Protein

• % EN Protein 8%

• 101 kc l/100 ml

• 2.6 /100ml Protein

• %EN protein 10.3%

Beyond Faltering growth

REFERENCES:

1. McDougall P et al. The detection of early weight faltering at the 6-8-week check and its association with family factors, feeding and behavioural development. Arch Dis Child 2009;94:549-52. 2. NICE. Faltering growth: recognition and management of faltering growth in children. NICE guideline Published: 27 September 2017. https://www.nice.org.uk/guidance/ng75. Available date: 22.02.2023. 3. Schaible UE et al. Malnutrition and infection: Complex mechanisms and global impacts. PLoS Medicine 2007;4(e115):0806-12. 4. Ross F et al. Preoperative malnutrition is associated with increased mortality and adverse outcomes after paediatric cardiac surgery. Cardiol Young 2017;27:1716-25. 5. Stechmiller JK. Understanding the role of nutrition and wound healing. Nutr Clin Pract 2010 25:61-8. 6. Deitch EA et al. Effect of starvation, malnutrition, and trauma on the gastrointestinal tract flora and bacterial translocation. Arch Surg 1987;122:1019-24. 7. Guedeney A. Withdrawal behavior and depression in infancy. Infant Ment Health J 2007;28:393-408. 8. Pozo J. Delayed puberty in chronic illness. Best Pract Res Clin Endocrinol Metab 2002; 16:73-90. 9. Budhathoki SS et al. Stunting among under 5-year-olds in Nepal: trends and risk factors. Matern Child Health J 2020;24:539-47. 10. Nair RH et al. Spirometric impairments in undernourished children. Indian J Physiol Pharmacol 1999;43:467-73. 11. Phornphatkul C et al. Cardiac function in malnourished children. Clin Pediatr (Phila) 1994;33:147-54. 12. Pollitt E et al. Effects of an energy and micronutrient supplement on mental development and behavior under natural conditions in undernourished children in Indonesia. Eur J Clin Nutr 2000;54:S80-90. 13. Berkman DS et al. Effects of stunting, diarrhoeal disease, and parasitic infection during infancy on cognition in late childhood: a follow-up study. Lancet 2002;359:564-71. 14. Gaiter JR et al. Socioeconomic outcomes in adults malnourished in the first year of life: A 40-year study. Pediatrics 2012;130:1-7. 15. Li H et al. Associations between prenatal and postnatal growth and adult body size and composition. Am J Clin Nutr 2003;77:1498-505. 16. Chung C. Obesity and malnutrition: two sides of one crisis. The New Humanitarian. Malnutrition Deeply. https://deeply.thenewhumanitarian.org/ malnutrition/articles/2017/12/15/obesity-and-malnutrition-two-sides-of-one-crisis-2. Eri§im tarihi: 03.05.2021. 17. Jahari AB et al. Effects of an energy and micronutrient supplement on skeletal maturation in undernourished children in Indonesia. Eur J Clin Nutr 2000;54:574-9. 18. Clarke SE et al. Randomized comparison of a nutrient-dense formula with an energy-supplemented formula for infants with faltering growth. J Hum Nutr Diet 2007;20:329-39. 19. Kareem ZU et al. Case report: Energy- and nutrient-dense formula for growth faltering: a report of two cases from India. Front Nutr 2021;8:588177. 20. van Waardenburg DA et al. Critically ill infants benefit from early administration of protein and energy-enriched formula: A randomized controlled trial. Clin Nutr 2009;28:249-55. 21. Eveleens RD et al. Weight improvement with the use of protein and energy enriched nutritional formula in infants with a prolonged PICU stay. J Hum Nutr Diet 2019;32:3-10. 22. Infatrini Product Information. 23. Aptamil 1 Product Information.

