# SHOULD HIGH ENERGY INFANT FORMULA BE GIVEN AT FULL STRENGTH FROM ITS FIRST DAY OF USAGE?



Evans S, Twaissi H, Daly A, Davies P, MacDonald A. 2006

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## **PURPOSE**

To assess whether an energy- and nutrient-dense (1 kcal/mL) infant formula (ENDF), intended for the nutritional management of infants with failure to thrive (FTT) can be well tolerated at full strength from day 1 versus a gradual introduction.

#### **DESIGN**

Thirty infants with a median age of 14.5 weeks were recruited in the study. Inclusion criteria were age (0-12 months) and a diagnosis of FTT in order for them to be eligible for receiving an ENDF (Fortini™). The infants were assigned at random to either full-strength ENDF from day 1 (n=18) or diluted ENDF which gradually increased to reach full strength by day 3 (n=12). Daily records of volume of feed consumed as well as bowel movements and vomiting episodes were kept for 14 days. Anthropometric measurements (including weight, length, head circumference and mid-upper arm circumference) were taken at baseline and after 14 days.

## **OUTCOMES**

Higher numbers of bowel movements were observed on days 1 and 2 for the group who received the ENDF at full strength versus the gradual introduction group (p=0.02). In particular, subjects younger than 12 weeks experienced more bowel movements on days 1 & 2 with ENDF at full strength (p=0.04). Finally, there was a correlation between higher total energy intake (kcal/kg) and more frequent bowel movements for days 1-4 (p=0.01). No statistically significant differences between the two groups were seen for growth or vomiting.

## **CONCLUSIONS**

Administering ENDF at full strength from day 1 to infants with FTT was found to be generally well tolerated. Infants younger than 12 weeks of age could potentially benefit from a gradual introduction of ENDF to avoid more frequent bowel movements.



