Title: The Effects Of Relizorb On Cystic Fibrosis Patients Requiring Nocturnal Enteral Feedings
Authors: Abigail Malloy, Sara Hendrix, MS, RDN, LD, CNSC, and Amanda Davis, MPH, RD, CHES

Objectives- This study evaluated the effects of Relizorb ${ }^{\text {TM }}$, a digestive enzyme cartridge designed to hydrolyze fats in enteral feeds, on gastrointestinal (GI) symptoms, vitamin D absorption, and weight status in patients with cystic fibrosis (CF) requiring nocturnal enteral feeds.

## Design- Case Series With A Nested Cross-Sectional Survey

Methods and Instruments- A retrospective chart review of 18 CF patients before and after beginning Relizorb was undertaken to compare weight and vitamin D status at several intervals. Patient surveys were administered assessing: frequency of common GI symptoms associated with malabsorption before and after beginning Relizorb, and the method in which enzymes were taken prior to Relizorb.

Results- Eleven out of 18 patients completed the survey. The five most common malabsorption-related GI symptoms reported decreased or resolved after beginning Relizorb. Previous methods for taking enzymes included crushing them into feeds or taking them before feeds. In patients aged 0-2 $(\mathrm{n}=2)$, one patient experienced a $63 \%$ increase in weight/length percentile within three months on Relizorb. In patients aged 2-20 ( $n=12$ ), median BMI percentile for females increased within three months of starting Relizorb and was maintained at 12 months ( $n=3$ ). Median BMI percentile for males did not show a similar trend ( $n=9$ ). In patients aged 20 and older ( $\mathrm{n}=4$ ), mean increase in BMI was $2.2 \mathrm{~kg} / \mathrm{m}^{2}$ within 12 months on Relizorb. Among the entire sample ( $n=18$ ), vitamin D levels increased by a mean difference of $+3.84 \mathrm{ng} / \mathrm{m}$.

Conclusions- Relizorb appears favorable compared to enzyme usage to improve weight, vitamin D levels, and Gl symptoms in this patient population.

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## Average Vitamin D Trends



Frequency of Top 5 GI Symptoms


