

# Probiotics help extremely premature infants gain weight

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Extremely low birthweight infants (ELBW) who received feedings supplemented with probiotics had better weight gain than infants who were not given the supplements, according to a randomized, controlled, double-blind study to be presented Saturday, May 1 at the Pediatric Academic Societies (PAS) annual meeting in Vancouver, British Columbia, Canada.

Probiotics, which means "for life" in Latin, are healthy, live organism supplements that provide benefit to the host. Their effect on digestive health and [immune function](#) has been studied. However, the safety and efficacy of probiotic supplementation in ELBW infants has not been explored thoroughly.

In this study, Mohamad Al-Hosni, MD, and colleagues from three medical centers, in collaboration with Vermont Oxford Network, evaluated the effect of supplementing enteral (tube) feedings with probiotics in extremely [premature infants](#) who weighed 2 pounds, 2 ounces or less. They hypothesized that infants who received probiotic-supplemented feedings would tolerate larger volumes of feeding per day, grow faster and require fewer days of antimicrobial treatment than those in the control group.

Fifty infants received 500 million colony-forming units (CFU) of [Lactobacillus rhamnosus](#) GG and 500 million CFU of Bifidobacterium infantis in enteral feedings once a day until discharge or 34 weeks postmenstrual age. Fifty-one infants received feedings with no

probiotics.

Results showed superior weight gain in infants who received the [probiotics](#) even though the average daily volume of their feedings was less than infants in the control group. There were no statistically significant differences in other complications of prematurity such as sepsis or necrotizing enterocolitis. In addition, no side effects were seen as a result of probiotic supplementation, according to Dr. Al-Hosni, an assistant professor of pediatrics at Saint Louis University School of Medicine in the division of neonatal-perinatal medicine at SSM Cardinal Glennon Children's Medical Center.

"These findings strongly suggest that probiotic supplementation to enteral feedings plays a major role in feeding tolerance and nutrient absorption," he said. "Improved tolerance of feedings and nutrient absorption lead to better [weight gain](#) in this extremely premature infant group."

Dr. Al-Hosni concluded that larger clinical trials are needed to demonstrate the safety and efficacy of probiotic supplementation to enteral feeding in this group of infants.

Provided by American Academy of Pediatrics

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