

# Researchers Show Probiotics are a Promising Treatment for NEC

August 12 2009, By Darci Slaten

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(PhysOrg.com) -- Researchers have determined that using probiotics, or healthy live bacteria, is an effective method to reduce and prevent a gastrointestinal disease that predominantly affects premature infants.

Research led by Bohuslav Dvorak, research professor of pediatrics, [cell biology](#) and anatomy at The University of Arizona's Steele Children's Research Center, has determined that using probiotics, or healthy live bacteria, is an effective method to reduce and prevent necrotizing enterocolitis, known as NEC.

NEC is a gastrointestinal disease that predominantly affects premature infants. Every year, approximately 10,000 [premature babies](#) are afflicted with NEC. The disease can be mild to severe with mortality rates around 40 percent.

In severe cases, a child's inflamed intestines may tear or perforate, allowing bacteria from intestines to leak into the abdomen, potentially causing a life-threatening systemic infection. The exact cause of NEC is unknown and there are no effective treatments for this disease.

Initial clinical studies suggest that supplementation of infant formula with probiotics is beneficial in the prevention of NEC. However, there are still considerable concerns among physicians about the safety of feeding live bacteria to prematurely born babies.

Using an experimental model of NEC, Dvorak and his team have

recently shown that oral administration of probiotics is a promising strategy for prevention of NEC. "Our studies confirmed that the probiotic *Bifidobacterium bifidum*, when added to formula, significantly reduces the incidence and severity of NEC," said Dvorak. "We found that this particular strain of probiotics reduces inflammation in the intestines and reinforces the intestinal barrier."

"Now that we've determined the efficacy of *Bifidobacterium bifidum*, we are exploring the safety of probiotics, how probiotics protect against NEC at the cellular and molecular levels, and what long-term consequences - if any - they have on immune and gastrointestinal functions," he said.

Provided by University of Arizona ([news](#) : [web](#))

Citation: Researchers Show Probiotics are a Promising Treatment for NEC (2009, August 12)  
retrieved 25 April 2024 from  
<https://medicalxpress.com/news/2009-08-probiotics-treatment-nec.html>

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