

## NEW Children's ENT-Pro

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What if I told you a tasty chewable strawberry flavored probiotic has been shown to be effective against Candida, Klebsiella, two forms of staph as well as strengthen macrophage activity, natural killer cells and increase activity of secretory IgA, you'd be interested right? Biotics Research asked Dr. Liubov Sichel, a world renowned microbiologist with more than 180 publications and 36 patents, to help develop a product for children. But before you turn me off because you don't work with kids, this tasty chewable boasts 2 billion active bacteria per tablet; so even though it's designed for kids to treat or prevent ENT problems, adults will benefit as well.

With over 40 clinical studies on this product, it has been shown to be safe, stable and has a high survival rate. All the Biotics probiotics have been designed to survive stomach acid and bile juices, but this product



is effective even in the presence of antibiotics and chemotherapy. The product is called Children's ENT-Pro.

Dr. Sichel discovered two new probiotic strains: lactobacillus delbrueckii LE for short and lactobacillus rhamnosus or LB3. These two strains are complimented by lactobacillus plantarum (LM), Bifidobacterium longum, and Bifidobacterium bifidum. Strains of Lactobacillus LE and LB3 were found to demonstrate high levels of antagonistic activity toward the microbes most frequently

found in chronic and recurring ENT infections. These strains specifically have shown to be effective against three stains of candida; candida albicans, candida krusei and candida tropicalis.

What's exciting is that these antimicrobial properties are not because of their direct killing abilities rather from stimulating our own natural immune system through a mechanism called immunobiotics. Immunobiotics is a relatively new term that describes how probiotics promote health through

driving mucosal immune mechanisms. For example IgA, the main immunoglobulin antibody for mucous membranes, plays a crucial role in the immune function of mucous membranes. It's the first line of defense for tears, sweat, colostrum, and secretions from the genitourinary tract, gastrointestinal tract, prostate, and respiratory epithelium.

This chart documents the immune activity of patients' tonsillar cells after cultivations with LB3, LE. (See chart)

The first column describes the groups in the study. A control group, a group taking the probiotic LB-3, a group taking the probiotic LE, and a group ingesting a Canadian yogurt called Jougart.

Now, look under the heading Natural Killer Cells: Controls had an average of 8.7 with a minimum and maximum range of 6-20. LB-3 subjects had an average of 23.5 with a minimum and maximum range of 6-75. LE subjects had an average of 30.1 with a minimum and maximum range of 8-100. Canada yogurt subjects rose slightly to 11.5., with a minimum and maximum range of 6-17. Now, look to the far right on the chart under the heading IgA-C, controls averaged 14.7. LB3 subjects increased to 19.6. LE subjects had little effect at 15.1.

As you know there are two parts to the immune system, the innate and the adaptive. Natural killer cells are a type of lymphocyte and are part of the innate system. One of their functions is to contain viral infections through a process called apoptosis while the adaptive immune response is generating antigen-specific cytotoxic T cells that can clear the infection. So a probiotic that increases natural killer cells is

very desirable. Another benefit of this unique blend is its ability to bind to mucosal membranes in the upper air passages.

As I mentioned earlier, there was a 30% increase in IgA by tonsillar cells. Tonsillar cells also increased the number of Natural Killer cells 3.4 times. Dr. Sichel suggested the addition of lysozymes to Children's ENT-Pro. Lysozymes are antimicrobial enzymes produced by animals that form part of their innate immune system. Lysozymes are found naturally in human saliva. The enzyme functions by attacking, hydrolyzing, and breaking the mesh-like layer of sugar and amino acid bonds that make up the cell walls. This hydrolysis in turn compromises the integrity of bacterial cell walls causing lysis of the bacteria.

Another benefit of the LE probiotics fraction in Children's ENT-Pro is the significant increase in the population of CD 25+ which in turn supports healthy T regulatory cells. It can be used preventatively as well as therapeutically.

Children's ENT-Pro is a product that tastes good, adheres to the mucosal lining in the mouth, demonstrates survivability under acidic and alkaline environments as well as against antibiotics and chemotherapy agents. It shows antagonist activity toward opportunistic microflora, exhibits immunomodulating effects and sports 2 billion bacteria per tablet. I know it was designed for kids but I guarantee adults will be cracking open a few for themselves, I know I will.

Thanks for reading this week's Tuesday Minute edition. I'll see you next Tuesday.