Probiotics: Not-so Friendly “Friendly Bacteria”?  

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Possible Side Effects of Probiotics

Decreased Immune Function: Case reports have shown that probiotic supplements should be cautiously used by immunocompromised people, because there is a potential for opportunistic infections. Some hospitals have reported treating Lactobacillus septicemia, a potentially fatal disease, caused by the consumption of probiotic supplements by people with lowered immune systems. There is also a possibility that probiotic supplements may interact with immunosuppressive drugs, leading to life-threatening conditions.

Acute Pancreatitis: Probiotic supplements have been shown to cause increased mortality in patients with severe pancreatitis. A therapeutic clinical trial conducted by Dutch Pancreatitis group as reported in The Lancet (February 2008 issue) confirmed that probiotic supplements are not appropriate for patients suffering from this disease.

Jarisch–Herxheimer Reaction: Herxheimer, a German dermatologist, identified the reaction caused when too many bad bacteria die at once. These dying disease organisms, usually Spirochete, release toxins faster than the body can handle. These toxins create an
Rejections of the European Food Safety Authority

The European Food Safety Authority (EFSA) recently rejected 171 of 181 proposals related to claims of health benefits of probiotic supplements. Some of the reasons for these objections are:

- The international labeling conventions, standardization, and nomenclature of particular strains have not been fully investigated.
- Inactive ingredients are not controlled and classified clearly enough.
- Most individuals have not determined which microflora are present in high, or low or optimum numbers within their own GI tract, so the process of trying to supplement particular microflora populations may involve guesswork.
- Each individual carries a different combination of gut microflora. This combination largely varies within the lifespan of the same individual with respect to age and the different states that one’s body undergoes like sickness, pregnancy etc. Therefore, there may be genetic propensities for and against certain probiotic species and more research is needed to see which group may benefit from which type of bacteria.
- The claim that a particular disease or genetic propensity is adequately addressed by a particular probiotic strain cannot be made unless significant statistical evidence is presented.
- Particular probiotic strains shown to have certain effects need to be better catalogued. An official depository source of samples is required to ensure consistent genetic trials.
- Genetic tampering with particular probiotic strains has led to many unofficial sub-species with unregistered names, misnomers and repeated names that are a threat to the integrity of well-identified probiotic species.
- Probiotic supplements have not undergone human trials. Laboratory results and animal studies cannot always be generalized to results in human beings.
- Dosing levels and optimum serving sizes, classified by age and weight, have not yet been defined or standardized for probiotic supplements.

Immune reaction because the body cannot release all of the toxins at a time, resulting in abdominal discomfort like gas, bloating and abdominal pain along with headache and allergic reactions. The Jarisch–Hersheimer Reaction has been associated with diseases, including syphilis, Q-fever, LD, leptospirosis, and occasionally typhoid and trichinosis. These reactions are commonly observed when one starts taking probiotic supplements. Such reactions indicate that one needs to adjust the supplement dose or stop taking it altogether.

**Translocation:** Helpful bacteria can be harmful to the host if they leave the GI tract. Translocation occurs when bacteria leave the gut through its mucosal lining (the border between the lumen of the gut and the inside of the body). Thus, patients whose gut lining is compromised (which often happens in disease conditions that start from unhealthy gut flora, making the recommendation of probiotic supplementation natural) should avoid probiotic supplements.

**Excessive Drainage Syndrome:** Excessive Drainage Syndrome can result from competing bacterial colonies when a new probiotic is introduced to the intestine. Probiotic supplement users generally suffer from dehydration. Intake of adequate liquids and electrolytes should be encouraged in such cases.

**Obesity:** It has been found recently that obese people have different populations of microfloral bacteria than lean people. The microfloral bacteria of obese people...
extract more calories from food. Researchers from Gordan-Washington University School of Medicine have shown that obese people have greater proportions of bacteria from Firmicutes division and lower proportions of bacteria from Bacteroidetes division of microflora as compared to the vice versa condition in lean people. The ratio between Firmicutes and Bacteroidetes dynamically reflects the overall weight of an individual; proportion of Bacteroidetes increases and Firmicutes reduces if an obese individual loses weight. Probiotic supplements may affect this balance.

Cancer: Some genera of bacteria, such as Lactobacillus and Bifidobacteria, are known to prevent tumor formation, while other genera such as Bacteroides and Clostridium have been associated with an increase in tumor growth rate. People suffering from cancer should keep this in mind, and check the constituents of the probiotic supplements that they consume.

Consumer, the Responsibility is Yours

While probiotics have the potential to help the body, we need to understand the side effects that could occur when taking them. It should be kept in mind that probiotics are considered supplements and not medical treatment. Supplements are not regulated by the government so it is important to understand what one is taking. You should learn to recognize some of the probiotic side effects and immediately stop taking them as soon as you experience them.

Extra care should be taken while introducing probiotic supplements into a child’s diet, as adult products are usually not suitable for juvenile and infant use. For consumers that are attempting a major internal cleansing of the GI tract, incremental doses are recommended. Trying familiar strains of bacteria at the first stage is recommended to avoid any serious effects. Similarly, the consumer should conduct significant trials on the reliability and utility of particular products before investing money on it.

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