

Upper Gastrointestinal Tract Conditions as Affected by Probiotics

By Ichihiro Ohhira

Antioxidant Property of OM-X Probiotic Capsules. Bioactive components of the human diet, such as antioxidants, contribute a significant "function" to several plant-based food products. Antioxidants are very important to human health because they play a vital role in reducing the risk of "radical-related" oxidative damage associated with many clinical conditions and degenerative diseases.

Current 20th Century research focuses on the potential to influence, by dietary means, the functional level of antioxidants in the body. Western research has emphasized the importance of the established antioxidant micronutrients including vitamins A, C, E and beta-carotene. Evidence tends to argue in favor of the possible protective mechanisms underlying the value of these nutrients in reducing the risk of several important degenerative diseases especially cancer, cardiovascular disease and ocular cataracts.

As has been established by scientific research conducted by a team of Japanese research scientists, headed by Dr. Ichihiro Ohhira (the award-winning microbiologist most celebrated as the inventor of OM-X Probiotic Capsules), consumption of OM-X Probiotic Capsules on a regular basis will enhance the capability of the human body to produce badly needed antioxidants. Antioxidants are particularly important because of the role they play in combating certain human degenerative conditions. Worldwide, only OM-X Probiotic Capsules provide the ingredients isolated by Dr. Ohhira and his team of scientists.

Upper Gastrointestinal Tract Conditions and OM-X. The role of probiotics like OM-X in the prevention and treatment of certain conditions have now become evident from research on the microflora of the upper gastrointestinal tract with special reference to the lactic acid bacteria group (LAB). In fact, many research scientists are now convinced that probiotic products, such as OM-X, can assist in the treatment of certain diseases.

The normal microflora of the mouth, stomach and duodenum are a rich ecosystem of enormous complexity containing a large number of species of bacteria. The esophagus and mouth have similar bacterial populations. In a "fasting" condition, the stomach and duodenum contain very few microorganisms and those that are present are mainly derived from the oral cavity and throat. The total population and species in the entire ecosystem show dramatic variations along the gastrointestinal tract with the highest concentration of microorganisms residing in the colon.

During fasting, the gastric juice contains only small numbers of bacteria and yeast ranging from 100 to 100,000 per ml. The predominant bacterial group found in the stomach and duodenum include Streptococci, Lactobacillus sp., Veillonella sp. and Clostridium perfringens.

After a meal, the bacterial counts in the gastric juice increase 100 to 1000 fold. This dramatic increase in transient bacterial counts will return to baseline levels within one to two hours as a result of a decrease in gastric juice volume and pH, as well as the effects of gastric motility.

A wide variation of bacterial types occurs among individuals, however, the number of species and population of bacteria are relatively stable in healthy adults. Within the upper gastrointestinal tract, the normal established "resident" bacterial microflora may be altered by bacteria introduced into the body as a normal part of food ("transient" microflora) or as contaminants ("accidental" microflora). In the upper gastrointestinal tract, these transient bacteria have a much greater effect on the resident microflora because of the lower numbers of the latter being present.

In spite of its stability, the intestinal microflora can vary enormously in the stomach and duodenum dependent on host factors such as level of gastric acid secretion, bile salts, and mucous in the intestinal wall.

In addition, medications, diet, infections, age, stress and climate can also alter the microflora. The contents of microflora may also be influenced by bacterial interaction such as antagonism or symbiosis. Adaptation of intestinal microflora can occur to most substances that enter the intestines from the oral tract or the biliary system. This adaptation occurs within several days with the ability of intestinal microflora to metabolize these substances. Gastric acid inhibits the growth of microorganisms with the stomach of patients having no gastric acid showing an increased number of bacteria.

Lactic acid bacteria (LAB) including lactobacillus, leuconostoc, lactococcus, pediococcus, and bifidobacterium are found throughout the gastrointestinal tract. The predominant population of lactic acid bacteria in the upper gastrointestinal tract is the lactobacillus species. Lactobacilli may colonize the mucosal surface of the duodenum as well as the stomach. For this to occur, lactobacilli must possess certain properties including adhesion, competitive exclusion ability and bacterial inhibitor production.

Only OM-X Probiotic Capsules provide live lactic acid bacteria that is "cultured" by Dr. Ohhira to be 6.25 times stronger than any naturally occurring lactic acid bacteria. Consequently, the "bad" bacteria in the upper gastrointestinal tract is destroyed or "inhibited" by the presence of the "good" bacteria contained in OM-X. Also, the special strains of OM-X's lactic acid bacteria, specifically TH 10, which is isolated from the Malaysian delicacy tempeh, are capable of inhibiting all harmful pathogenic bacteria living in the human "gut" including the MRSA (methicillin-resistant Staphylococcus aureus).

Clearly, OM-X Probiotic Capsules, as developed by Dr. Ohhira, are the world's finest probiotic products. Only OM-X recognizes the challenges associated with maintaining and strengthening the microflora contained in the human "gut" so that the resident "good" bacteria make up at least 85 percent of the bacteria living in the "gut" and not more than 15 percent of "bad" bacteria reside in the human body.

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