

<p><b>Introduction</b></p>	<p><b>Brand Name: Z-Sporlac</b></p> <p><b>Therapeutic Category: General Health &amp; Immunity</b></p> <p>Elle Metchinkoff, a Zoologist and a Biologist with a number of other credentials, won a Nobel prize for his pioneering contribution on phagocytes. However, his greatest contribution is proposing a theory that gut bacteria that are capable of producing Lactic acid prolong life. How true he was! Today, a number of beneficial microbes known as probiotics, are being used to treat both acute and chronic disorders. Probiotics also play a vital role in a number of biochemical processes in the human body and also play a role in immunostimulation. The use of probiotics, in treating various conditions, is the field of bio-therapeutics. [Synthesis of essential vitamins, absorption of minerals and trace elements, improving defense mechanisms of the body, etc. that are important for maintaining good health].</p>
<p><b>Bacillus coagulans</b></p>	<p>Sporlac was the first probiotic containing Bacillus coagulans that was launched in India in the year 1974. Sporlac is considered to be the probiotic that is most prescribed by health practitioners and is expected to be sold by more than 4 million pharmacies (retail chemists) across India. Sporlac contains gram positive microorganism Bacillus coagulans (MTCC strain no: SNZ-1969), which is considered to have tremendous resistance against temperatures upto 90°C, can survive in acidic environment upto pH-2 and could survive in 2% Bile. The formation of spores help these bacilli withstand the acidic environment of the stomach to reach the intestine where they germinate and proliferate, producing the favored L (+) optical isomer of lactic acid.</p> <p>Once active in the small intestine after germination, B. coagulans may aid in digestion of proteins and sugars from the diet. This may be beneficial to the host, especially in the case of lactose and fructose intolerance: once the sugars are digested in the upper gastro-intestinal (GI) tract, they will no longer cause the symptoms associated with the intolerance in the lower part of the gut, such as bloating, diarrhea and other symptoms. B. coagulans is considered a transient colonizing probiotic, indicating it takes up only temporary residence in the human intestines. Spores of B. coagulans are excreted slowly via the feces for approximately seven days after discontinuation of administration.</p>
<p><b>Clinical Benefits of B. Coagulans</b></p>	<p><b>Clinical Benefits of B coagulans in General Health &amp; Immunity</b></p> <ol style="list-style-type: none"> <li><b>Cholesterol reduction:</b> It has been suggested that some probiotics can degrade cholesterol in the gut as well as produce metabolites that interfere with its synthesis in the liver.</li> <li><b>Vitamin synthesis:</b> Some probiotics can synthesize various vitamins, largely of the B group.</li> <li><b>Improved Gut function:</b> An active gut flora helps to adequately digest the 60–80 g of food that enters the adult colon each day. Probiotics have a major role in carbohydrate degradation.</li> <li><b>Immune Regulation:</b> A stimulation of the non-specific immune response through non-pathogenic means helps improve resistance to infections.</li> <li><b>Nutrient &amp; Mineral Bio-availability:</b> A reduced pH in the bowel because of lactic fermentation enables better sequestration of Calcium and Magnesium and other essential nutrients. An improvement in the absorption of essential nutrients and minerals has been observed.</li> </ol>
<p><b>Biochemical Functions of Zinc</b></p>	<p>Zinc is an essential nutrient in humans that is necessary for the function of a large number of metalloenzymes that participate in a number of biochemical reactions in the body. Zinc also plays an essential role in the maintenance of nucleic acid structure of genes. Another important observation is that zinc deficiency has been associated with dermatitis, anorexia, growth retardation, poor wound healing, hypogonadism with impaired reproductive capacity, impaired immune function, and depressed mental function.</p>
<p><b>Zinc &amp; Immunity</b></p>	<p>The trace element zinc is essential for growth and development of all organisms, and the high rate of proliferation and differentiation of immune cells necessitates a constant supply with sufficient amounts of zinc. Zinc is known to play a central role in the immune system, and zinc-deficient persons experience increased susceptibility to a variety of pathogens. It is clear that zinc affects multiple aspects of the immune system, from the barrier function of the skin to gene regulation within lymphocytes. One major pathway how zinc controls the immune system is by the signaling mechanisms. <i>Zinc deficiency in Diabetics impairs zinc-dependent signaling, and thereby immune function.</i></p> <p>Zinc is crucial for normal development and function of cells mediating non-specific immunity such as neutrophils and natural killer cells. Zinc deficiency also affects development of acquired immunity by preventing both the outgrowth and certain functions of T lymphocytes, such as activation of Th1 cytokine production and B lymphocyte help. Likewise, B lymphocyte development and antibody production, particularly immunoglobulin G, is compromised. The macrophage, a pivotal cell in many immunologic functions, is adversely affected by zinc deficiency, which can dysregulate intracellular killing, cytokine production, and phagocytosis. Lymphopenia is common in zinc-deficient humans and animals and occurs in both the central and peripheral lymphoid tissues. Zinc deficiency results not only in decreased lymphocyte concentrations, but in depressed T and B lymphocyte function.</p> <p>With the onset and progression of Type 2 Diabetes, worsening of the immune status is a common observation, which is why diabetics often have delayed recovery periods from acute or chronic disease, and also delayed wound healing, a manifestation of compromised immune status in Diabetics, a major concern for the Physicians.</p> <p>Zinc supplementation is a must in both immunocompromised individuals, due to acute or chronic disease, and Type 2 Diabetes as both classes of patients are zinc-deficient, affecting not only metabolic processes, but also the immune system. Zinc, when used as per the daily recommended allowance, does not cause any adverse effect or undue toxicity.</p>
<p><b>Dosage</b></p>	<ol style="list-style-type: none"> <li><b>In Acute or Chronic Infections:</b> 1 Tablet BID for at least 15 days; thereafter, 1 tablet a day for maintenance for 15 days or as advised by the Physician.</li> <li><b>In Diabetics,</b> 1 tablet BID for prolonged periods of time or as advised by the Physician.</li> </ol>

<b>Storage</b>	The box containing the strips of Sporzee tablets must be stored in a cool dry place away from direct sunlight and out of the reach of children.
<b>Presentation</b>	Each Strip Contains 10 Tablets and Each box Contains 10 Strips of 10 Tablets

