Nutritional Influences on Illness
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Treating Canker Sores
(Aphthous Stomatitis) with Nutrition

Vitamin B Complex
Occasional patients are deficient in certain members of the vitamin B complex. Repletion of a deficiency of folic acid, niacin, riboflavin, thiamine, vitamin B6, or vitamin B12, whether based on low serum or erythrocyte levels, is sometimes followed by remission.

Iron
Similar to deficiencies of the B complex vitamins, the results of open trials suggest that repletion of an iron deficiency may be beneficial. For example, of a group of 100 affected children, 5 had iron deficiency anemia while another 13 had iron deficiency without anemia. Four of the anemic children received iron supplements. Six months later, 2 of them had a dramatic improvement in the lesions while one other had a slight improvement. All 3 now had normal serum iron levels. Lesions in the fourth child had worsened. However, she had a combination of low iron and low folate levels and both had failed to normalize.

In another study, 23 of a group of 330 patients were found to be deficient in iron, 6 in vitamin B12, 7 in folic acid, and 11 in two or more of these nutrients, for a total of 47 patients (14%). After 33 of the patients with demonstrated deficiencies received 6 months of supplementation, 23 had a complete remission and 11 improved, while 5 showed no changes.

Zinc
In open trials, zinc sulfate 220 mg daily has been reported to be effective. As with the above nutrients, the efficacy of zinc may depend upon the level of zinc nutriture. When, for example, zinc supplementation was provided to a group of 17 patients, all 9 patients with lower serum zinc levels (<110 μg/dL) improved, compared to only 3 of the 8 patients with higher zinc levels. In a recent controlled trial, one month of supplementation with zinc sulfate 220 mg daily was found to be effective in reducing the lesions.

Lysine
In an open trial, 28 patients received lysine 500 mg daily for prophylaxis which was increased to 1000 mg 4 times daily at the earliest sign of an outbreak. Nearly everyone reported that lysine reduced the number of recurrences, although a few required 1000 mg daily for effective prophylaxis. When an episode occurred, the high dosage of lysine reduced their duration by 25% to 50%.

If a trial of lysine is successful, there is some concern about continuing it over the long term, since excessive dietary lysine may contribute to the risk of atherosclerosis. Supplementation with a smaller dosage of arginine (with which lysine competes) may possibly reduce the risk; it is not known, however, whether arginine will interfere with the therapeutic effect of lysine. The alternative is to monitor serum cholesterol levels, as the increase in risk may be due to enhanced hepatic cholesterol production.

Lactobacillus Acidophilus
The results of anecdotal reports suggest that L. acidophilus, with or without L. bulgaricus, may be of benefit if applied locally by swishing a liquefied product in the mouth, sometimes followed by swallowing the product. A double-blind study failed to confirm its efficacy in reducing the duration of healing. However, since the patients in that study were severely mentally retarded, its effect on pain could not be assessed.

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above, causing problems such as kidney stones and kidney failure. It is extremely difficult to get 1,000 IU per day without taking a supplement. People who live in the northern third of the US, Canada, those with dark skin, those who are housebound or institutionalized, and individuals who do not consume foods fortified with vitamin D should also take vitamin D supplementation. Women and men with unexplained bone loss may also need to be tested for vitamin D deficiency.

Some people have used cod liver oil as a source of supplemental vitamin D. Cod liver oil is indeed very rich in vitamin D. One tbsp supplies about 1,400 IU. However, what our body manufactures and dietary sources combined may take some of us over the 2,000 IU per day. Cod liver oil also contains high levels of vitamin A, which can cause increased calcium excretion. Cod liver oil is also a suspect source of contaminants and if utilized, should be from a company that can provide testing and safety information.

**Dietary sources of vitamin D**

<table>
<thead>
<tr>
<th>Food</th>
<th>IU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmon, cooked (3.5 oz)</td>
<td>360</td>
</tr>
<tr>
<td>Sardines, canned (1.75 oz)</td>
<td>250</td>
</tr>
<tr>
<td>Tuna, canned (3 oz)</td>
<td>200</td>
</tr>
<tr>
<td>Milk, cow's (1 cup)</td>
<td>100</td>
</tr>
<tr>
<td>Milk, fortified soy (1 cup)</td>
<td>100</td>
</tr>
<tr>
<td>Breakfast cereal, fortified (1 serving)</td>
<td>40</td>
</tr>
<tr>
<td>Egg (1)</td>
<td>20</td>
</tr>
</tbody>
</table>

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**Food Sensitivities**

There are many anecdotal reports relating specific food sensitivities to recurrent aphthae, although scientific documentation is meager, and it appears that the majority of patients are not atopic. In a double-blind study, 60 patients' leukocytes were first tested to discover which food antigens caused them to release histamine. When the test-positive foods were eliminated, 30% of patients had a decreased ulcer incidence and, following re-challenge with foods which had been eliminated, 30% of those foods were associated with an increased incidence of oral lesions. More controlled studies are needed before the relative importance of food sensitivities will be known.

**References**


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