

NP Blog - Zinc: An Infection-Fighting Mineral

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PLEASE NOTE: The content contained in this blog is for informational purposes only, and you should ALWAYS check with your health care provider to see what is best for you.

While zinc deficiency is more common in developing countries, a recent study published in the Journal of Nutrition has confirmed its importance in immune support. Children in Nepal given zinc supplements were protected from a serious bacterium that can cause respiratory infections, including pneumonia.

The Connection Between Zinc & Infection

Streptococcus pneumoniae-related pneumonia is one of the most serious health threats to children around the world. As part of a larger study, researchers looked at the effects of micronutrient supplements on the health of children in Nepal, an area known for its high prevalence of nutrient deficiencies.

Children between one and three years old were randomly assigned to receive 10 mg of zinc per day or placebo. From these two groups, 550 children who developed pneumonia during the study period were compared with 550 children who did not. Swabs of nasal secretions from the children were tested for the presence of *S. pneumoniae*. As predicted, carriers of the bacterium were nearly three times more likely to get pneumonia than noncarriers, and among children who had early signs of infection at the time of the nasal swab, carriers were 78 times more likely to develop pneumonia. However, among children in the zinc group, carriers had no greater risk of pneumonia than noncarriers.

"We found evidence that zinc supplementation may significantly weaken the association between *S. pneumoniae* carriage and acute lower respiratory infection in young children living in areas of endemic zinc deficiency," the study's authors said.

The results suggest that carrying *S. pneumoniae* does not invariably lead to infection, but that a weakness in the immune system may also be necessary. Zinc appears to be one key to immunity in *S. pneumoniae*-carrying children.

How to Eat Your Zinc

Based on blood zinc levels, 42% of the children in this study who did not get zinc supplements were deficient. While only 3% of US children have low blood zinc levels, this study highlights the clear connection between adequate nutrition and health.

People who eat a grain-based vegetarian diet are especially susceptible to deficiency. Red meat is a major source of bioavailable zinc, but cereal grains contain compounds that interfere with zinc absorption. Deficiencies in children in the developed world, however, are more likely to be due to excessive consumption of highly refined "junk" foods rather than

overconsumption of whole grains.

To Add More Zinc to Your Diet, Look to the Following Sources:

- In addition to red meat, poultry, fish, and dairy foods are good sources of zinc.
- Plant foods rich in zinc include chickpeas, other beans and lentils, pumpkin seeds, and sesame tahini.
- Because leavening and cooking improve the bioavailability of zinc in whole grains, whole grain bread is also a good source.

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