Vitamin and Mineral Supplementation in Children

It is common for parents in the United States to give their children vitamins (such as a daily multivitamin) and minerals (such as calcium or iron) as supplements. Almost $2 billion is spent each year on these supplements in the United States, but many parents are not sure if their child should be taking vitamin and mineral supplements.

An article in this month’s Archives observed vitamin and mineral supplement use in children and adolescents. The researchers wanted to learn more about which children in the United States were taking vitamins or mineral supplements on a regular basis. There were over 10,000 children between the ages of 2 and 17 years in this study; more than one-third of them took a vitamin and/or mineral supplement in the previous month. Interestingly, the study results showed that children who do not really need vitamin and mineral supplements were more likely to take supplements, such as those who were healthy, had active lifestyles, and had access to good food and health care. The study also showed that children who may benefit from vitamin and mineral supplements were less likely to take supplements, such as those who had health problems, less active lifestyles, and limited access to food or health care.

WHO NEEDS VITAMIN AND MINERAL SUPPLEMENTS?
Many professional organizations, such as the American Academy of Pediatrics and the American Dietetic Association, strongly recommend that in healthy children, diet is the best source of vitamins and minerals.

Which children and adolescents do not need vitamin and mineral supplements? Children who are healthy, eat a variety of foods, are active, and see a doctor regularly.

Which children and adolescents may need vitamin and mineral supplements? There are many reasons that a doctor may recommend these supplements. Some examples include children who are underweight, have restricted diets, or have illnesses that put them at risk for deficiency (low level) of a vitamin or mineral. It is recommended that all infants, including those who are exclusively breastfed, have a minimum intake of 400 IU of vitamin D per day beginning in the first few days of life.

POTENTIAL PROBLEMS IN GIVING VITAMIN OR MINERAL SUPPLEMENTS TO CHILDREN WHO DON’T NEED THEM
Parents may think that their child needs a vitamin or mineral “just because,” even if he or she is getting a healthy diet, but taking these supplements may cause problems in children if they do not need them. Large doses of vitamins, or “megavitamins,” may put children at particular risk for:

- Nausea
- Vomiting
- Abdominal pain
- Liver abnormalities
- Nerve problems

HOW CAN MY CHILDREN GET ENOUGH VITAMINS AND MINERALS FROM THEIR DIET?
Overall, the best strategy is to choose from a wide variety of foods.

- Include lean meats, poultry, fish, beans, eggs, and nuts
- Keep diets low in saturated fats, trans fat, cholesterol, salt, and added sugars

DOES MY CHILD NEED A VITAMIN OR MINERAL SUPPLEMENT?
If you have questions about your child’s diet or health or whether he or she needs a vitamin or mineral supplement, ask your child’s physician.

FOR MORE INFORMATION
MyPyramid.gov
http://www.mypyramid.gov/KIDS/

INFORM YOURSELF
To find this and other Advice for Patients articles, go to the Advice for Patients link on the Archives of Pediatrics & Adolescent Medicine Web site at http://archpediatrics.org.

Source: Centers for Disease Control and Prevention, American Dietetic Association, and American Academy of Pediatrics.
Change in Dosage. In the Advice for Patients page in the February issue of Archives (2009;163:192), it was recommended that “all infants, including those who are exclusively breastfed, have a minimum intake of 200 IU of vitamin D per day beginning in the first 2 months of life.” In November 2008, the American Academy of Pediatrics changed this recommendation to 400 IU of vitamin D per day “beginning in the first few days of life.”