

Vitamin D: An Essential Nutrient

NOW THAT THE WINTER SEASON is in full swing, the days are noticeably shorter and the nights are longer. That means children are spending a lot more time indoors away from the natural sunlight that produces vitamin D in the body.

Vitamin D plays an important role in bone health. It promotes the absorption of calcium and

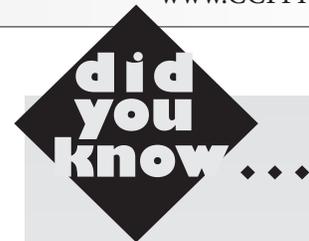
A vitamin D deficiency leads to nutritional rickets, a condition that causes weak and deformed bones in babies and children. Symptoms can include a delay in learning to walk, low height-for-age and bowing of the legs and arms. Rickets rarely occur in the U.S., but a recent outbreak of cases has raised concerns that children are not getting enough vitamin D. In adults, not getting enough vitamin D can increase risk of osteoporosis and other diseases.

The body can make sufficient vitamin D with just a few minutes a day of midday sun exposure without sun screen. However, dermatologists caution against direct sun exposure to avoid risks of skin damage and skin cancer. An alternative to sun exposure is dietary vitamin D or vitamin

D supplements. There is some controversy about the amount of vitamin D that children and adults should consume, ranging from 400 IU to 2,000 IU daily. The American Academy of Pediatrics and the

(continued on page 2)

phosphorus and helps deposit these minerals in bones and teeth, making them stronger and healthier. Research also links vitamin D to many other health benefits such as, reducing the risk of cancer, heart disease, stroke, diabetes, autoimmune diseases and more.



- ▶ Despite the ability to get vitamin D from food and the sun, an estimated 40-75% of people are deficient.
- ▶ Factors affecting the skin's ability to produce vitamin D include: season, latitude, time of day, air pollution, cloud cover, sunscreen, body part exposed, skin pigment and age.
- ▶ The Vitamin D council recommends taking Vitamin D-3 rather than Vitamin D-2. Vitamin D-3 is the type of vitamin D naturally produced by the body.
- ▶ Before adding a supplement to your diet it is recommended that you undergo testing for a deficiency to see if it is necessary.

Quotable Quotes

“*The shared meal elevates eating from a mechanical process of fueling the body to a ritual of family and community, from the mere animal biology to an act of culture.*”

– Michael Pollan
In Defense of Food: An Eater's Manifesto

INSIDE:

- ◆ Anger Management for Children
- ◆ Recipes
- ◆ Valentine's Day Snack Activity
- ◆ Food Funny

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— Continued from front page

Institute of Medicine recommend a daily intake of 400 IU per day of vitamin D during the first year of life and 600 IU for everyone over 1 year of age. Consult your primary care professional to determine the amount of vitamin D you should be getting to ensure optimal vitamin D levels.



Vitamin D and Healthful Diets

The federal government's *2010 Dietary Guidelines for Americans* notes that "nutrients should come primarily from foods". Minimally processed, nutrient dense foods not only contain the essential vitamins and minerals that are often in nutritional supplements, but also dietary fiber and other naturally occurring substances that may have positive health benefits. The *Dietary Guidelines for Americans* describes a healthy diet as one that:

- *Emphasizes a variety of fruits, vegetables, whole grains and fat-free or low-fat milk and milk products.* Milk is fortified with vitamin D, as are many ready-to-eat cereals and some brands of yogurt and orange juice. Cheese naturally contains very small amounts of vitamin D.
- *Includes lean meats, poultry, fish, beans, eggs, and nuts.* Fatty fish such as salmon, tuna, and mackerel are very good sources of vitamin D. Small amounts of vitamin D are also found in beef liver and egg yolks.
- *Is low in saturated fats, trans-fats, cholesterol, salt (sodium), and added sugars.* Vitamin D is added to some margarine.
- *Meets daily calorie needs.*

Food Sources of Vitamin D

Dietary sources of vitamin D are limited. Most of the vitamin D in the American diet comes from fortified foods such as milk, breakfast cereal, and some brands of juice, yogurt or margarine. For example, almost all of the U.S. milk supply is fortified with 100 IU/cup. Several food sources of vitamin D are listed below; incorporate these healthy foods into your breakfast, lunch, snack and dinner menus.

Foods Sources of Vitamin D	IUs per serving
Cod liver oil, 1 tablespoon	1,360
Swordfish, cooked, 3 ounces	566
Salmon, sockeye, 3 ounces	447
Portabella mushrooms, exposed to ultra violet light, 1 cup sliced	400
Tuna fish, canned light, 4 ounces	150
Orange juice fortified with vitamin D, 1 cup	137*
Milk, 1 cup	115–124
Soymilk, fortified, 1 cup	100*
Yogurt, fortified, 6 ounces	80*
Margarine, fortified, 1 tablespoon	60*
Sardines, canned in oil, drained, 2 sardines	46
Liver, beef, cooked, 3 ounces	42
Egg, 1 large (vitamin D is found in yolk)	41
Ready-to-eat cereal, fortified, 1 cup	40*

*Consult the Nutrition Facts Label for exact amounts of Vitamin D fortification

Vitamin D is a fat-soluble vitamin. Fat-soluble vitamins can build up in the body and are not as easily excreted as water-soluble vitamins. The Institute of Medicine committee set a level of 4,000 IU as the "tolerable upper limit" or the maximum amount that is considered safe to consume daily as storing too much can cause a level of toxicity.

Resources

National Institutes of Health Office of Dietary Supplements
Dietary Supplement Fact Sheet, Vitamin D: http://ods.od.nih.gov/factsheets/VitaminD_pf.asp

— *American Academy of Pediatrics,
Kids and Vitamin D Deficiency*

KIDS' HEALTH & SAFETY

Anger Management for Children

5 Strategies

It is never too soon to teach children how to control anger so that it doesn't *control* them. Remember, however, that it is difficult for young children to master these strategies so children will need help—and a lot of practice.

1 Stop. If a child is feeling out of control, she should be separated from the person she feels like hurting. She should leave the room. Children often need a parent or caregiver to help them to stop.

2 Calm down. Teach children to use some calming strategies when they feel the physical symptoms of anger. He can try taking deep breaths, drinking a glass of water, distracting himself with a song or a story or playing alone.

3 Think before you act. Encourage children to ask themselves, "What do I want to happen?" Explain that vengeance and retaliation are not worth acting on. Being understood and making things right are worthwhile. Some actions can't be erased, but the injured child can still show understanding.

4 Consider the other person's feelings. Children can begin to show empathy as young as 3 years old, but they need the help of an adult. Try to get her to understand the other person's point of view, just as she wants her point of view understood. See if she can figure out why the other person doesn't understand her side. Could she find another way to get her view across more clearly? Can she try to let it go?

5 Look for possible solutions. Help children see beyond mean words like, "I hate you and you're no good." See if they can find a compromise that both parties can agree on. Apologizing often helps.



When Anger Becomes Aggression

Of course, there will be times when anger turns into a physical melee. Use this as an opportunity to help children master their aggressive feelings. Here's what you can do to facilitate anger management for children:

- **Stop the action and restore safety.** It's often necessary to isolate the fighters. Reassure both sides that they'll be safe, and that they can learn to stay in control and protect themselves.
- **Set limits.** Lay down the law and let children know who's in charge when they're out of control: "No hitting, and if you won't stop it, I will."
- **Follow through with consequences.** A child must face the consequences of his actions if he is to learn to stop and think before he acts. "If you can't be together without hurting each other, then you can't be together. If you want another chance to play, see if you can remember this."
- **Forgive.** Children need to know that their bad behavior hasn't turned them into bad people. Apologies and making amends help them move from the guilty feelings that come from knowing they were wrong, to a feeling of hope that they can do better.

— Adapted from *Anger Management for Children*, Scholastic.com

Easy Tuna Patties

Eggs	2	Tuna, chunk light, drained	3 (5 oz.) cans
Lemon juice	1 Tbsp	Green onions, sliced	3
Mayonnaise	2 Tbsp	Red bell pepper, diced	1/3 cup
Parmesan cheese	1/4 cup	Black pepper	pinch
Seasoned, dry, bread crumbs	3/4 cup		

1. Beat eggs with lemon juice and mayonnaise. Stir in cheese and bread crumbs. Fold in tuna, green onion, bell pepper and black pepper until well mixed. Shape tuna mixture into eight patties.
2. Heat vegetable oil in a skillet over medium heat; fry patties until golden brown, about 5 minutes per side.

Yield: 8 servings

Meets requirement for protein/meat alternate

— Allrecipes.com

Parmesan Roasted Broccoli

Broccoli florets	2 pounds	Italian seasoning	1 tsp
Green onion, sliced	2 bunches	Garlic salt	to taste
Garlic, minced	2 cloves	Pepper or lemon pepper	to taste
Olive oil	1/3 cup	Red pepper flakes (optional)	1/2 tsp
Panko breadcrumbs	1/4 cup	Lemon, cut in wedges	2
Parmesan cheese	1/4 cup		

1. Preheat the oven to 425°F. Spray a baking sheet with cooking spray and set aside. Separate the broccoli florets into bite size pieces.
2. Place broccoli into a mixing bowl, with the sliced green onion and minced garlic. Pour the olive oil over the broccoli. Toss gently until coated. Add the remaining ingredients. Mix well.
3. Lay vegetables in a single layer on the baking sheet. Roast for 15–20 minutes or until crisp tender and the crumbs are golden. Serve immediately with lemon wedges.

Yield: 8 servings

Meets requirement for fruit/vegetable

— Melissa's Southern Style Kitchen

Activity Corner

LOVE TOAST WITH FRUIT HEARTS

Children will enjoy helping to prepare this simple and delicious Valentine's Day snack!



LOVE TOAST

Toast a slice of whole wheat bread for each child. Let each child press down on their slice of toast with a large heart shaped cookie cutter. Have children spread a bright red jam, such as strawberry or red raspberry, onto their love toast.

FRUIT HEARTS

Gently remove the green tops from fresh, rinsed strawberries and slice them lengthwise to reveal a natural heart shape. Rinse red apples and slice them crosswise. Have children press a small heart shaped cookie cutter over the core to remove the core from the apple slice. Pass around a shaker of cinnamon and sugar to sprinkle on their festive apple.

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Food Funny Q: How do you know if the chef is a clown?
A: The food tastes funny!