

A close-up photograph of a hand holding a single, large, golden, oval-shaped pill. The hand is positioned as if about to drop or release the pill. The background is a light, textured surface, possibly wood or stone, with shadows cast by the hand and the pill.

Easy As ABC?

Why pills
can't replace food

By Sara Aase

Brianna Kinney knows some smart mice.

She credits vitamin B₆ with the little guys' spike in intellect. For a science fair project, Kinney, who was a senior last year at Big Foot High School in Walworth, Wis., tested how quickly mice that were on different diets navigated a maze.

The group with no dietary supplement "sat there like bumps on a log," taking as long as 20 minutes to complete the maze, she says. The mice on vitamin B₆, however, performed up to 150 times faster.

Kinney, now studying at Hollins University in Roanoke, Va., doesn't take vitamins. But after her study, she wonders if she should.

No Substitute

Whether or not to take a multivitamin is a question without an easy answer. Our bodies need nutrients such as vitamins (from plants or

animals) and minerals (from nonliving things) for growth, digestion, and other functions. But recent studies have found little proof that vitamin and mineral supplements enhance health or help prevent disease.

"A multivitamin is not really a replacement for food," says Lindsay Reaves, a dietitian in Estherville, Iowa, who has surveyed teens about vitamin use. "They don't help prevent against disease the way an apple would, because other chemicals in our food help keep us healthy, and [nutrients and those chemicals] need to work together."

Certain vitamins, if taken in excess, can also cause harm. Dietitians point out that teens might already be getting enough vitamins if they consume fortified energy bars or protein drinks. "I wouldn't say in general that teens should go out and get a multivitamin," says

Calcium Calculator

To figure out your calcium intake

in milligrams (mg) from food labels, add a zero after the daily value (DV) percentage.

For instance, if an 8-ounce container of yogurt shows a 45 percent

DV, that's 450 mg

of calcium. Aim

for 130 percent

of DV, since you

need 1,300 mg.

Nicole Larson, a University of Minnesota researcher. "The most promising thing we know in terms of health relates to good dietary patterns and not supplements."

Supplement Savvy Here are the top vitamins and minerals you need, the recommended

Calcium

1,300 mg daily

- Builds the bone mass that lasts for life
- Teen years are critical for getting enough.



Good sources	Serving	mg per serving
American cheese	2 ounces (oz)	348 mg
Fruit yogurt	1 cup	315 mg
Milk (skim or low fat)	1 cup	300 mg
Salmon (pink, canned, with bone)	3 oz	181 mg

Good vegetarian/lactose-free sources

Soy milk (calcium added)	1 cup	250-300 mg
Tofu (calcium added)	½ cup	204 mg
Rice milk (calcium added)	1 cup	150-300 mg
Broccoli	1 cup	90 mg

Vitamin vitals

- Consider a supplement if you can't get enough calcium through foods; should also contain vitamin D
- One calcium pill or multivitamin provides about half the daily calcium allowance.

Vitamin D

5 mcg daily

- Critical for the absorption of calcium and phosphorus
- Keeps bones strong
- Sunlight also stimulates production in the skin.



Good sources	Serving	mcg per serving
Salmon (cooked)	3 ½ oz	9.0 mcg
Tuna (canned in oil)	3 oz	5.0 mcg
Milk	1 cup	2.5 mcg
Eggs	1 whole	0.5 mcg

Good vegetarian source

Breakfast cereal (10% daily value of vitamin D)	¾ to 1 cup	1.0 mcg
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Sunlight

(midday sun, no sunscreen, at least twice a week)

(fair skinned) 10 minutes per day*

(dark skinned) 40 minutes per day*

*If in the sun longer, use sunscreen.

Vitamin vitals

- Follow recommendations for calcium.

Better Than Nothing?

Yet teens' diets, in general, aren't making the grade. Because they often skimp on fruits and vegetables, dairy products, and lean meats, many teens lack nutrients critical to growth, such as iron, zinc, calcium, and vitamin D. Take Joanna Kraft, a 16-year-old from Boise, Idaho. Kraft says she gets most of her vegetables at dinner and doesn't drink milk. A bagel, juice, granola bar, sandwich, and raisins are her main sources of nutrition during the day. Kraft's diet, though not terrible, might lack enough calcium—dietitians recommend that teens get the equivalent of four and a half 8-ounce glasses of milk, but most teens get fewer than three.

Like 25 percent of teens, Jake Hoium, 15, believes in the power of supplements. He takes a daily multivitamin, a calcium supplement, and

vitamin E, among other dietary supplements. "I take the calcium because I only drink a glass of milk a week and the multivitamin just because I think I should," the Minneapolis teen says.

Some experts say such vitamin supplements may have value for teens who don't get enough nutrition through their diets. "If you do the math comparing diet versus nutrient requirements and see what [teens] are not getting in terms of nutrients, it's probably not a bad idea for them to be taking a multivitamin," says Connie Weaver, head of Purdue University's department of foods and nutrition in West Lafayette, Ind.

What's your best bet? Try to get as many nutrients—especially calcium—from the foods you eat every day. If you think you're missing anything, check with your doctor for advice. **CH2**

amounts in milligrams (mg) or micrograms (mcg), and good sources of each nutrient.

Iron

11–15 mg daily

- Builds cartilage, ligaments, tendons, bones, and teeth
- Low levels can cause a low red-blood-cell count
- Best absorbed from protein sources
- Vegetarians: Pair iron-containing and iron-boosting foods (rich in vitamin C, such as tomatoes).



Good sources	Serving	mg per serving
Liver	3 oz	5.8 mg
Sirloin beef	3 oz	2.9 mg
Turkey (dark meat)	3 oz	2.0 mg

Good vegetarian sources

Breakfast cereal (25% daily value of iron)	¾ cup	4.5 mg
Lentils	½ cup	3.3 mg
Spinach (boiled)	½ cup	3.2 mg
Almonds (unblanched)	½ cup	3.1 mg

Mineral maybes

- You may need an iron supplement or a multivitamin if you are a vegetarian or have been ill.
- Don't take iron supplements without a doctor's OK: Too much iron is toxic (max for teens is 45 mg/day).

Zinc

9–14 mg daily

- Boosts the immune system
- Helps form enzymes, proteins, and cells
- Best absorbed through meat; vegetarians need twice the recommended amount from plant foods.



Good sources	Serving	mg per serving
Oysters (battered/fried)	6 medium	16.0 mg
Beef (pot roast)	3 oz	7.4 mg
Pork (tenderloin)	3 oz	2.5 mg

Good vegetarian sources

Breakfast cereal (100% daily value of zinc)	¾ cup	15.0 mg
Baked beans	½ cup	1.7 mg
Cashews (dry roasted)	1 oz	1.6 mg

Mineral maybes

- Zinc lozenges haven't been proved effective against colds.
- Ask your doctor before taking a zinc supplement; too much can harm immune response and cholesterol levels (max for teens is 34 mg/day).