Calcium is important for bone health, but 800–1,200 mg a day from food sources appears to be plenty. While we do not limit naturally occurring calcium found in whole foods, calcium from supplements may actually be harmful. **Why we do not recommend supplements that include calcium:**

- Most studies show that calcium supplements do not seem to prevent fractures\(^4,5\) and contribute little to bone density.\(^6,7\)
- Calcium supplements appear to be associated with significant risk for harm, particularly an increased risk of heart disease\(^8\) and dementia.\(^9\)
- There appears to be an increase in age-related macular degeneration in observational studies.\(^10\)
- Also, avoid supplements with boron and strontium.

**So how much calcium should I eat?**

Include 2–3 calcium-rich servings of whole foods each day from the list below to get enough calcium from your diet without using supplements. Also, avoid calcium fortified foods like juice and commercial breakfast cereal in favor of naturally occurring calcium in whole foods. Here are some examples with about 300 mg of calcium per serving:

- 1½ cups cooked greens like spinach and kale, etc.
- ½ cup edamame (fresh soy beans)
- 3 ounces canned sardines (with bones)
- 4 ounces canned salmon (with bones)
- 8 ounces of plain yogurt or kefir
- 1½ ounces of hard cheese like extra-sharp cheddar and Parmesan
- ½ cup ricotta cheese
- ½ cup tofu (made with the natural coagulant calcium sulphate)

**The Mediterranean diet and strong bones**

The good ol’ omnivorous Mediterranean diet appears to be associated with lower rates of hip fractures,\(^11\) arguably one of the most important measures of bone health. In contrast, vegetarian diets are associated with more osteoporosis and fractures.\(^12\) Foods most strongly associated with better bone health include vegetables, fruit, whole grains, seafood, dairy, and moderate wine intake. Not surprisingly, processed foods have been found to be detrimental to bone health in multiple studies\(^13\) – another reason to prepare our own food.

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\(^2\) Bolland, M.J. et al. BMJ 2015;351:h4580
\(^3\) Tai, V. et al. BMJ 2015;351:h4825 doi:10.1136/bmj.h4825
\(^7\) Kemmler, W. et al. Arch Intern Med 2010;170:179-85
\(^12\) Kemmler, W. et al Osteoporos Int 2015 Oct;26(10):2491-9
Green Eggs and Quinoa

This is easy to make and a complete meal in one dish. It is also loaded with pro-bone & anti-osteoporosis ingredients! (Adapted from Good Food, Great Medicine page 244.)

(Serves 4 as a main dish, more as a side dish)

2-4 tablespoons extra-virgin olive oil
1 medium-large onion in ¼-inch dice (2–3 cups)
6 eggs
1 cup whole milk
1 teaspoon salt
1 teaspoon freshly ground black pepper
6 ounces (about 2 cups) grated sharp cheddar cheese
½ cup grated Parmesan cheese
1½ cups cooked quinoa (page 208)
16 ounces frozen spinach, thawed

Preheat oven to 300 degrees. Oil an 8x8 or 9x13-inch (2–3 quart) Pyrex baking dish or similar.

1. Heat oil in a sturdy 10-inch skillet over medium-high heat and sauté onion for about 10 minutes or until very tender. Remove from heat and set aside.

2. Whisk eggs in a mixing bowl or an 8-cup Pyrex jug. Add milk, seasoning, cheeses, cooked quinoa, spinach, and sautéed onions, and mix very well.

3. Scrape into oiled baking dish and bake uncovered for about 60–75 minutes (it will cook more quickly in the larger baking dish) or until no longer wet in the center.

Note:

- Adding ½-pound of fresh sausage to the sautéed onions in Step 1 will kick up the flavor and the crowd-pleasing qualities. Just push the onions to the side and sauté sausage until browned and well crumbled.

Bone health and vitamins D, K, and B12

- Vitamin D is a complex issue. Vitamin D levels in the range of 20–40 ng/ml are associated with healthy bones as well as lower rates of mortality, obesity, type 2 diabetes, heart disease, high blood pressure, depression, and some cancers. However, blood levels above 40 ng/ml may be associated with harm, including higher death rates. After decades of research it is still unclear whether vitamin D supplements prevent fractures, osteoporosis, or other diseases, and higher levels of supplementation (e.g. 2,400 IU per day) may be associated with harm. A blood level of 20–40 ng/ml is a reasonable target, supplementing with 1,000–2,000 IU daily only if you are unable to get enough vitamin D from natural sources like oil-rich fish (like salmon, tuna, and sardines) and sunlight.

- It appears that vitamin K from food may be an important factor in fracture risk reduction. A very rich source of vitamin K is the family of leafy greens like kale, collards, chard, beet greens, and so on. Sauerkraut and other naturally fermented foods like kimchi, natto or tempeh (fermented soybeans) and aged cheese are also good sources – we recommend a daily serving of both leafy greens and fermented foods, if possible. We do not recommend Vitamin K supplements.

- Low vitamin B12 levels increase risk of fracture; once again, the best way to raise your levels is through food because there is no evidence that B12 supplements help. Good food sources are shellfish, oil-rich fish like salmon and sardines, and unprocessed red meat. Two or three servings a week is probably enough.

Good Food, Great Medicine classes

Our two-part class series targets weight loss, insulin resistance, and type 2 diabetes, and details steps for preventing or reversing them. The classes are based on the 3rd edition of Good Food, Great Medicine, which each participant will receive at the first class.

Good Food, Great Medicine class (part 1):

- Review inter-relationship of excess waistline and weight, insulin resistance (common to most cases of type 2 diabetes), and common chronic diseases.
- Discuss the role of the “key four” – a whole food Mediterranean diet; minimal sweeteners, refined grains and starches; daily activity; and enough sleep.
- Work through the 14 simple steps that target your risk factors and produce effective, lasting change in your waistline, blood sugar, and other health risks.

Good Food, Great Medicine class (part 2):

- Explore practical application of whole food choices and menu planning. See demonstrations of a couple of foundational recipes from Good Food, Great Medicine. Review progress, find solutions to challenges, and fine-tune personal action plans.

| Time: | 6 – 8 pm Wednesday |
| Dates: | 10/19/16 (Part 1) and 10/26/16 (Part 2) |
| Location: | Providence St. Vincent Medical Center |
| Cost: | $100 (2-class series) |
| Registration: | Call 503.291.1777 to reserve a place |

Good Food, Great Medicine newsletter at Goodfoodgreatmedicine.com

“Prove all things; hold fast that which is good.”
1 Thessalonians 5:21 (KJV)

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