Here is Tor Hassell, who has just heard that wearing a mask is far less effective against the flu than eating sardines and skipping dessert. Read on for more immunity-boosting tips.

Make your immune system stronger than an itty-bitty virus!

Improving your immunity so that your body can overcome threats from virus, bacteria, fungi, and cancer is always a good idea, even when we’re feeling good. And what better time to talk about this than when we are hearing words like ‘pandemic’ in relation to the swine flu virus?

By the time you read this, the whole swine flu concern may have blown over, as a similarly named threat did in the 1970s – or it may become a full-fledged threat. Either way, we could all use the occasion of the Great Swine Flu Kerfuffle of 2009 to take better care of ourselves.

So…what can you do to reduce your risk of getting severe forms of infections, particularly viral infections? Notice the use of the word ‘severe’: it seems to be perfectly normal to get mild versions of viruses, especially when we are children. Apparently a runny nose now and then is akin to our immune system having a healthy workout at the gym.

(This essay will not deal adequately with the issue of immunization, which has a surprisingly modest impact,¹ and is currently irrelevant with regard to the swine flu issue.)

Immune-boosting strategies

Get sleep
Sleep deprivation has a number of adverse effects on health, including being associated with more viral infections. So, schedule at least 7 – 8 hours of sleep daily. If that isn’t happening for you, consider making an appointment with us to help you with your sleep.

Walk daily
Exercise is a broad immune system booster. The exercise we recommend most is a brisk walk lasting 30-60 minutes on every day ending in Y. On the other hand, vigorous exercise that leads to exhaustion will tend to temporarily depress the immune system.

Shun sweets
Minimize sweets, sweet drinks, and refined carbohydrates such as breads, pastries, and pasta made with white flour. (Remember, if the first flour mentioned on the ingredient list is not 100% whole wheat flour, it is white flour, even if it is called ‘organic, unbleached, enriched wheat flour’.) All of these foods tend to acutely raise blood sugars, which has the effect of suppressing immune response, perhaps through a negative impact on white blood cell activity. In addition, these foods are low in overall nutrition, so your total trace nutrient intake goes down when you eat refined carbohydrates, in comparison to eating whole foods. (Trace nutrient intake is important. Increased zinc, for example, which is prominent in foods such as oysters and red meat, is associated with fewer infections in the elderly.)²

Eat bugs
The good bugs found in foods such as plain yogurt and plain kefir improve immunity, so we suggest that you eat yogurt and kefir most days. We favor the Nancy’s brand (made in Springfield, Oregon), but there are other good brands out there. Read labels, and avoid anything with

² Am J Clin Nutr 2007;85:837-44
added sweetening or flavors – add your own at home for the most benefit. If you haven’t used kefir before, it is a cultured milk product found near yogurt in the supermarket, and contains a much different family of microorganisms than does yogurt.

**Eat real food**
Eating whole grains and beans, whole fruit and vegetables, and healthy fats (like extra virgin olive oil and raw nuts) are all important for improved immunity. The specific reasons are unclear, but there appears to be a vital interplay between fiber, various families of micronutrients, and healthy fats. (The subject of the Mediterranean-style diet as an evidence-based approach to eating well without sacrificing eating enjoyment is covered thoroughly in *Good Food, Great Medicine*, the book written by Mea and Miles.) We suggest using extra virgin olive oil instead of other vegetable oils due to their relative lack of micronutrients and typically greater amounts of pro-inflammatory omega 6 fatty acids.

**Go fish**
Adequate protein, particularly from fish, allows the body to make the right defensive blood components. Sardines are particularly impressive immune enhancing foods, supplying protein, omega-3 fatty acids, and nucleic acids.

**Get D**
Vitamin D has profound effects on human immunity, and a deficiency of vitamin D may be a key factor in allowing influenza epidemics to occur. Having a blood level of 25-OH Vitamin D in the region of 50 ng/ml is a reasonable target. That usually takes either quite a bit of sun exposure without sunscreen, 1,000-2,000 units of vitamin D daily as a supplement, or maybe about 1 tablespoon each day of cod liver oil.³

**Get the big picture**
Protecting yourself from a serious flu infection involves largely the same steps that help prevent heart disease, type 2 diabetes, dementia, and cancer. Don’t let the health-threat-story-du-jour trouble you: instead, live your life in such a way that you can reduce your risk of the above diseases while at the same time priming your immune system to be in the best shape to deal with any health challenges that come your way. It takes effort, but it’s worth it.

³ Cannell, J.J. Epidemiol Infect. 2006;134:1129-40

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### Tuna and Broccoli Pasta
*(Recipe by Mea Hassell from *Good Food, Great Medicine*)

- 12 ounces *whole-grain* pasta spirals
- 8 cups of broccoli florets (about 3 heads)
- 2 cans (6 ounces each) solid light tuna in olive oil
- 2 tablespoons lemon juice or apple cider vinegar
- 2 teaspoons freshly crushed garlic
- 1 teaspoon salt
- 1 teaspoon freshly ground pepper
- 1 cup freshly grated Parmesan

1. Set a big pot (8-quart is a nice size) of water on the stove to boil with 1 tablespoon salt.
2. Slice off broccoli florets and divide larger florets into bite-sized mouthfuls. You can save the stems for another meal, or peel and slice in ¼-inch slices and add to florets.
3. In a large bowl, combine tuna with its olive oil, lemon juice (or vinegar), garlic, salt, pepper, and Parmesan. *(If you only have solid white tuna packed in water, drain thoroughly, discarding the liquid, and then add ½ cup extra-virgin olive oil.)*
4. Add pasta to the pot of boiling water and cook according to instructions, or until pasta is just barely done. Crank the heat up to high and add the broccoli to the boiling water and pasta. Watch for water to come back to a boil, and then remove after 30 seconds, or while broccoli is still vibrant green and tender-crisp.
5. Empty broccoli and pasta into a strainer and drain for about 5 seconds, tossing gently in strainer a couple of times. Tip drained pasta and broccoli into the bowl with tuna mixture and toss to blend thoroughly. Serve hot or warm. *Serves about 4 as main dish.*

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### Upcoming Speaking Events

