

Sustainable Health



**An Ongoing
Health Column
by Judy Stone**

Viruses, Fevers, and Colds, Oh My!

It's "cold and flu season" again and I've just finished perusing one of the many, "tips and tricks" articles, a seasonal media ritual. And the reality is, that many people, maybe you included, are getting taken down for weeks at a time. What is it that creates immunity? Why do some people get sick repeatedly, while others seem to make it through unscathed? Is it really necessary to get a flu shot, or wash your hands after every potentially cootie transferring incident (PCTI)? Isn't our body designed to fight off infection and resist all those germs?

In 2003, New York Times columnist Lisa Sanders, MD, wrote, "A decade ago, I stood alongside my 99 fellow freshmen as we were welcomed into the ranks of medicine in a 'white coat ceremony.' Here, on our first day of med school, we were presented with the short white coats that proclaimed us part of the mystery and the discipline of medicine. During that ceremony, the dean said something that was repeated throughout my education: half of what we teach you here is wrong -- unfortunately, we don't know which half." The human body is incredible and complex, but to me, one of the really interesting puzzles is how much about the body was known long before we had what is today's pharmaceutical and surgical based medicine. We seem to have lost our way, abandoning simple, natural, solutions in favor of more heroic efforts. Sometimes we need heroic, but in the case of flu, colds, and many other bacteria and viruses such as Salmonella, E-Coli, Epstein Barr, Herpes Symplex, and even Human Pappiloma Virus, what we can often rely on is an injection of knowledge that has been around for awhile.

I got my "flu shot" recently when I had the pleasure of listening to a recording I'd heard several years earlier, and was reminded of some of the basics of immune health as put forth by the late Dr. Royal Lee in the mid-1900's. Dr. Lee was extraordinary. Trained as a dentist, he was also a man who had an unquenchable desire to understand the critical role of nutrition in human health. Many of his ideas were rejected and fought against by the medical establishment at the time, but have since been validated by medical research, and the experience of legions of holistic health practitioners who have studied his work.

Dr. Lee suggested that the "triad" of Ionized Calcium, "Vitamin F", and Vitamin C Complex are the nutritional elements that make it possible for the body's immune system to mobilize the power to knock out flu, viruses,

bacterium, and their associated diseases. First, let's define the triad. Ionized calcium or calcium bicarbonate is a form of calcium that can diffuse into cells. Although 99% of the calcium in your body is in your bones or teeth, the 1% that's not is extremely important, as we'll see shortly. The only natural source of calcium bicarbonate (outside of your body converting it from either food sources, or supplemental calcium lactate or calcium citrate) is mineralized hard water. Calcium lactate is also readily available from raw milk when the calcium combines with naturally occurring lactic acid (which is killed in pasteurization, ironically, because it would provide the immunity against the very things we're pasteurizing to prevent).

Vitamin "F" is what we now refer to as essential fats. Vitamin C Complex is perhaps not what you think it is. The FDA has ruled that the only thing that can be labeled or sold as Vitamin C, is ascorbic acid, which commercially is made from sulfuric acid and corn syrup. Vitamin C Complex in nature, what you find in broccoli or an orange, is a complex structure containing many factors that work synergistically. Ascorbic acid is an outer coating of C Complex, and is thought to serve as an anti-oxidant for the entire complex. In our body, ascorbic acid can act as an anti-oxidant, but is incomplete and cannot produce the numerous other essential functions of C complex.

So now, let's get back to our cootie-fighting mission. Although Dr. Lee was often treated as a quack in his time, the truth of his work shows up time and time again in journal-published medical studies. Many studies from about the eighties on, some conducted in Detroit hospitals, demonstrate a high correlation between decreased blood calcium levels and acute illness, infections, poor prognoses, and higher mortality in hospitalized patients. Higher blood calcium levels likewise correlated with better outcomes in both adults and children who were critically ill.

How does this all work? Although many of us connect taking Vitamin C (which more often than not is ascorbic acid) for a cold, we don't typically think of calcium or fatty acids as being involved with the immune system. How Royal Lee knew this back in 1958 remains a mystery. But our current understanding of the role of calcium in immunity was enhanced by research done at U of M's Kellogg Eye Center (published in 2003). High speed imaging techniques revealed that it is in fact a "cloud" of calcium surrounding cooties in the cell that issues a "call-to-arms" for the warriors of the immune system to attack. How cool is that? Without sufficient levels of calcium bicarbonate, or ionizable calcium in the tissue, immunity is compromised and viruses and bacteria of all kinds have the opportunity to flourish. Not only did the aforementioned hospital studies show this but a study published in 1993 in the journal Gastroenterology showed that high doses of calcium inhibits the growth of e.Coli in the gut, virtually eliminating the diarrhea caused by it. Sounds like a winner for traveling, as well as at home.

Natural Vitamin C complex contains Tyrosinase, an enzyme that gives added muscle to the white blood cells that play an essential role in our immune response. Fatty acids help change calcium into its immune super-hero, bicarbonate form, and transport it from the blood into the cells. So we have the Triad—calcium, Vitamin C complex, and fatty acids—as major players in immunity.

Calcium, Fatty Acids (or Vitamin F) and Vitamin C complex are all things we can get from food, but there are many reasons most people don't get enough of these essential nutrients. Inadequate diets and mineral-deficient foods are two obvious ones. But there are others. Calcium requires enough stomach acid to be absorbed and many people secrete less acid as they age, not because it's a "normal" part of aging, but it is common. Taking acid-blocking medications or over-the-counter remedies both inhibit calcium absorption. Calcium also needs Vitamin D to be transported from the gut to the blood, so it can be picked up by Vitamin F and taken to

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the tissues, but D deficiency, particularly in the dark days of winter in Michigan, is probably the rule rather than the exception. Vitamin D is manufactured in the body when sun hits the skin.

But all things in moderation. It looks like too much D from long sun exposure can actually make you more susceptible to viruses. Data gathered about Herpes Simplex and Human Pappiloma Viruses demonstrate that incidences of both increase dramatically in summer when time in the sun can be higher for many people. Researchers suspect that the overexposure decreases immunity and that makes sense because too much D will actually pull calcium out of the cells back into the blood, and is consistent with the observation that calcium in the tissues plays an important role in decreasing viral and bacterial illness in general.

So what about protecting yourself from colds, flu's, and viruses? Here are the salient nutrition points. Eat lots of dietary calcium, which you can get readily from foods like kale, collards, broccoli, turnip greens, Swiss chard, spinach, kiwi fruit, oranges, yogurt, kefir, and many other places. Don't forget you need stomach acid to absorb calcium so if you take acid blocking preparations this is a concern because you're at higher risk for calcium deficiency. For everyone else, supplementing with Calcium lactate or citrate can be very beneficial, especially if sick.

Your body requires adequate Vitamin D to pull calcium from the gut to the blood. Since Vitamin D levels decrease with the darkness of winter, also coinciding with cold and flu season, most people in this climate will do best to supplement with Vitamin D₃ (not synthetic Vitamin D₂). If you want to know your Vitamin D level, the correct blood test to check it is called "25 Hydroxy D". Levels for optimal function (rather than disease avoidance) based on current research are thought to be 50-65 ng/ml.

A diet or supplements giving you regular amounts of essential Vitamin F—salmon, mackerel, mercury-free fish oil, organic butter—will ionize and pull calcium into the cells where it will sound the immune alarm. And C complex from whole foods or supplements will give muscle to those immune cells.

I find it pretty humbling and exciting to keep learning just how much what we eat matters, and how proactive we can be in sustaining our health by understanding and observing the laws of nature.

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