DR. MICOZZI'S
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A shockingly simple solution to fighting this year's flu

It's been hiding in the Boy Scout handbook since the deadly flu pandemic of 1918

It's that time of year again… when the government, doctors, and of course the drug companies who influence them do everything within their power to get everyone in the U.S. to submit to the flu vaccine. The way some news outlets pick up on the press releases, you'd think the flu was the No. 1 cause of death.

But the annual flu as we know it is typically nowhere near the killer you may believe. And the best form of prevention for most is surprisingly simple. And essentially as inexpensive as all those "free" flu shots.

This year's flu: An inconvenience or a death sentence?

Today, most of us experience the flu as an annual inconvenience. But nearly 100 years ago, the U.S. was hit by a global pandemic: the influenza outbreak of 1918, commonly known as the "Spanish flu."

The Spanish flu caused the worst global pandemic in recorded history. It killed more people than died in World War I. And in the period of a few months, it killed more people than any medieval pestilence or Biblical plague. According to the most recent estimates, it killed more than 50 million people and affected one fifth of the world's population, all within the span of a year.

The 1918 flu affected over 25 percent of the U.S. population. And in one year, it killed so many it caused the average life expectancy in the U.S. to fall by a dozen years.

Scientists are still studying what made the 1918 flu so deadly in an effort to protect the public from a repeat of this terrible experience. In a closed scientific conference in 1994, the year before I left Walter Reed Army Medical Center, I suggested that scientists there use new technologies to decode what made the flu so deadly by recovering specimens that I knew had been preserved from soldiers who died of the flu in 1918. As a result, several government careers have been made on pursuing my idea.

The year before that, the movie *Outbreak* was making people nervous. As Director of the National Museum of Health and Medicine at Walter Reed, I was asked to say something reassuring by the then-host of the popular television show *Entertainment Tonight*, John Tesh.

John asked whether a virus could really emerge from the jungles of Africa and move on to devastate vast urban areas of North America as depicted in the movie. But to know what a viral epidemic in North America really looks like, we only need to observe the usual effects of the influenza virus each year. Fortunately the deadly flu epidemic of 1918 has yet to be repeated, so typically we are dealing with a known and familiar occurrence.

Many microbes actually thrive in warmer climates, but our retreating indoors in crowded conditions when the weather becomes colder makes ideal circumstances for contagion. Passing viruses from one infected person to the next.

Continued on page 2...

In this issue:

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From "magic bullets" to "friendly fire"

The popular perception is that infectious diseases have been "conquered" by modern miracle drugs and vaccines. However, "magic bullet" treatments for infectious disease have now become "friendly fire" by breeding drug-resistant strains of bacteria that are even more dangerous. There are now about 2 million cases of hospital-acquired antibiotic-resistance infections, and 100,000 deaths each year.

And specialists know that many of the old diseases have never been eradicated at all. They are still with us and must be constantly controlled. Smallpox was officially "eradicated" by a worldwide effort of the U.S. and the World Health Organization in 1979. But now we are witnessing new concerns about smallpox kept in research laboratories. And we are reminded that new viruses can indeed arise from the jungles, as with the human immunodeficiency virus, or HIV. And of course, there's the most recent spread of the swine flu.

What should you do to protect yourself? And when?

As always, prevention is the best approach. Treatments for viral infections like the flu remain controversial, expensive, and potentially toxic. High levels of resistance already occur with drugs like amantadine and rimantadine. And while oseltamivir (Tamiflu®) and zanamivir (Relenza®) were effective against last year's flu and are still being recommended this year, resistance can change as fast as the flu virus itself does. So you want to do what you can to avoid it from the start. This is one reason why so much emphasis is placed on flu vaccinations.

Flu shots are now widely used for prevention with a new batch prepared each year based on the likely new strains.

The Centers for Disease Control (CDC) recommends that everyone older than six months receive a flu vaccine, preferably in the fall before flu season begins. That's public health advice for limiting flu in the population at large.

But what about you as an individual? Following are a few important questions to consider:

- Have you found yourself to be susceptible, getting the flu pretty much every year? Or is it unusual for you to get sick?
- Are you typically around a lot of people and in crowded situations during the winter?
- Do you have a lot of contact with children, frequent carriers of viruses from crowded classrooms?
- Are you debilitated and suffering from a chronic disease, especially chronic lung or heart disease?

If you answered yes to any of these questions, you may want to consider going ahead and getting the flu shot. Just keep in mind it's no guarantee, as you may catch a strain not included in the vaccine. Otherwise, a simple stepped-up effort in basic hygiene may be all that's needed.

Back to basics

Flu and cold viruses are spread by direct contact, typically touching a contaminated surface and then touching your nose, eyes, or face. Viruses are spread as fomites (small airborne particles) by an infected person coughing and sneezing onto surfaces (or in unfortunate circumstances directly onto someone else). The virus may survive on contaminated surfaces long enough to be picked up and spread through contact by an uninfected person.

So when it comes down to it,

good old fashioned soap and water is the best prevention. Wash your hands after going out and contacting potentially contaminated surfaces. Avoid touching your face, mouth, and nose unless your hands have been cleaned. And don't forget to clean under your fingernails. These guidelines are nothing more than what has been in the Boy Scout handbook, for example, since the flu epidemic of 1918.

Also wash your face. The best approach is to submerge your entire face into a sink of warm water, completely covering the eyes, nose, and mouth. Blink your eyes several times. Then blow out through your nose. This will naturally wash out any microbes.

Avoid "antibacterial" agents like the plague

Today's antibacterial products are nothing more than a marketing scam. My daughter and I once did a simple middle school science project about 15 years ago where we grew (cultured) microbes on laboratory petri dishes. We then rubbed our hands with the culture media, washed our hands, and then took samples from our hands to see what microbes remained.

We were impressed that water by itself removed over 90 percent of germs. Both regular soap and water, and "antibacterial" soap, removed about 99 percent. But there was one very important difference. The bacteria left behind by the "antibacterial" washes were the more dangerous, "ugly-looking" bacteria. While the bacteria left behind from regular soap and water was more normal looking. This simple experiment led us to wonder whether the profusion of "antibacterial" soaps was leading to the breeding of more dangerous bacteria, just as the overuse of antibiotics has led to the emergence of dangerous resistant strains of bacteria.

Today's antibacterial products are nothing more than a marketing scam.

Beyond my own simple experiments and experiences over the years, science has now exposed that it's a myth that antibacterial soaps are more effective than regular soap and plain soap and water. Not only do they appear to be counter-productive when it comes to infection, they also contain toxins that cause other health problems.

Decades ago the antibacterial hexachlorophene in "deodorant" soaps was shown to harm the brains and nervous systems of young children. This lead the FDA to outlaw its use in non-medicinal products. There have long been concerns that mouthwashes kill normal, protective microbes in the mouth (like "probiotics") opening the door to more serious infections. Recent reports confirm my concern that even "single-use" and "single-dose" supposedly sterile injections can lead to MRSA (see sidebar below). And now we have new reports about potential toxicity from the antibacterial agent triclosan, which is found in countless "anti-bacterial" and deodorant products.

Continued on page 4...

Alcohol in hand sanitizers no better than antibacterial

Hand sanitizers with antibacterial agents typically contain about 60% alcohol. Alcohol by itself is an effective way of killing most germs according to the CDC. Of course, any fluid, whether alcohol or just plain water is effective at simply washing away germs.

New research shows that while alcohol applied to the skin kills germs, it's possible it may leave behind more dangerous bacteria. Potentially lethal antibiotic resistant staphylococcus aureus bacteria (like MRSA) is usually associated with cuts and scrapes from play grounds, gyms, and other recreational facilities. But cases of MRSA are now arising in people who had nothing more than a "sterile" injection in a medical facility where the skin was "sterilized" with alcohol.

There is new research reported in the *Journal of the American Medical Association (JAMA)* that 10 patients from Arizona to Delaware came down with MRSA from nothing more than a "sterile" injection of medication from "single-dose," or "single-use" vials administered in orthopedic and pain clinics.[5]

I'll continue to following up on these reports, and will let you know what I uncover here in *Insiders Cures'* and in my *Daily Dispatch* e-letter. But in the meantime, there is no need to use antibacterial agents, or even topical alcohol, in your day-to-day efforts to fight germs. Use plain old soap and water.

Citations available online at www.DrMicozzi.com

Risks far outweigh any benefit when it comes to triclosan

Triclosan is a chemical originally developed as a surgical scrub in operating rooms 50 years ago. But it is now found in antibacterial soaps, body washes, toothpastes, deodorants, and mouthwashes. Even in some clothing and cookware.

And it's now being found increasingly in human tissue, blood, urine, and breast milk. It's so prevalent, in fact, that according to a survey by the CDC, the chemical is present in the urine of 75 percent of Americans over the age of 5. It's also getting into the environment posing a hazard to wildlife.[1]

Studies in mice show it interferes with skeletal and heart muscle function.[2] And other studies have shown that triclosan is toxic to the immune system, which could well *increase* your susceptibility to infections.[3]

The FDA says they are aware of these findings and are engaged in a scientific and regulatory review. But in the meantime, they say there's not sufficient evidence of toxicity in humans. FDA says it's issuing an updated report…sometime this winter…after it's too late for the start of the flu season…but why wait? On the very same page, they admit they do "not have evidence that triclosan added to antibacterial soaps and body washes provides extra health benefits over soap and water. Consumers concerned about using hand and body soaps with triclosan should wash with regular soap and water."[4]

If you ask me, the science is clear. Don't expose yourself to products containing triclosan. And don't use any "antibacterial" products. They are unnecessary and may be harmful. Save yourself the risk and the money by using good, old fashioned soap and water.

Some additional natural answers

In the end we all have to rely on a healthy immune system to combat infection regardless of whatever preventive steps you take. And since antibiotics don't treat viral infections like colds and flu, it's especially important to have a healthy immune system.

Many herbal remedies and nutrients help boost immunity. Vitamin C is probably the best-known approach. Healthy doses of vitamin C of 2,000 mg per day or more have been observed to decrease the severity and duration of cold symptoms.

The same is true of the herbs echinacea and goldenseal but they must be taken at the first sign you are coming down with a cold. These can be taken either as a standardized herbal preparation or as infusions as a hot tea beverage. A dose of 300 mg echinacea 3 times per day may be effective when you are coming down with a cold or flu—but discontinue its use afterwards. Both echinacea and goldenseal are not effective and are not recommended to be taken on a continuing basis—only when you are coming down with and/or nursing a cold. Garlic, one or two raw cloves per day, or 250-500 mg of dry powder, per day, may be effective as well.

Finally, take an adaptogen. Adaptogens are plant substances that help the body regenerate after being fatigued or stressed. They essentially help your body maintain a healthy balance and state of normalcy and can help promote an active and healthy immune system. Common adaptogens are Panax ginseng (250-500 mg per day) and Withania, or Ashwagandha (500 mg per day). A less common adaptogen is Sutherlandia frutescens (400 mg per day). Sutherlandia was used extensively with success in South Africa during the 1918 flu pandemic. IC

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Ten medical procedures you may do better without!

Hundreds of thousands of Americans are injured, poisoned, and killed each year by modern medical technologies. Even the most respected medical journals and institutions have confirmed in various reports over the past 10 years the failures of American "modern medicine." Including deaths from unnecessary surgery, medication errors, clerical errors, hospital-acquired infections, and even from the "expected" negative side effects of drugs. All the while, health care costs are spiraling out of control and insurance companies are requiring patients to pay a greater share of the cost.

So despite all our breakthrough technology, American medicine often appears to be doing more harm than good. In fact, you may be surprised at what can be done without it!

It's time to rethink some of the medical myths and rituals that result in millions of useless tests, procedures, and "interventions" that appear to do more harm than good. Besides the huge waste of time and money they represent.

And now the American Board of Internal Medicine Foundation is

doing just that with a new project called "Choosing Wisely." The foundation consists of doctors from nine of the top medical societies in the U.S. And the Choosing Wisely program has identified 45 different medical procedures that are of little or no value, from tests, to surgeries, and even commonly prescribed medications. Below I'll review the most commonly performed tests that are now considered inappropriate. Removing this kind of waste and abuse from the healthcare system could save billions of dollars a year.

Even the benefit of the routine yearly "checkup" is being questioned for most patients now. As reported in a New York Times article, back in 1979 a Canadian government task force recommended giving up the standard top-to-bottom annual physical exam.[1] They said it was "inefficient, nonspecific" and even "potentially harmful." That Canadian diagnosis was made the same year I graduated from a U.S. Ivy League medical school where we all sincerely believed the annual "checkup" was just practicing good medicine!

But the potential danger or harm of unneeded exams is that they may show "false positives," potentially lead to risky procedures and treatments, and/or more tests, which leads to more of the same. It's a vicious cycle. And every step along the way comes with the potential for harm. The controversy over the PSA test to try to detect prostate cancer is a good example.

But from the first day out of medical school, there remains a lot of simple inertia about what doctors expect they should be doing for their patients, and about what patients expect from their doctors. Not to mention all the economic incentives from the health care industry to provide more "care" whether needed or not.

There are also perverse incentives in medical research to discover more and more "biomarkers" for screening and "early detection" of diseases like cancer, despite the repeated abject failures of this approach for decades

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(as I reported for ovarian cancer biomarkers in the *Daily Dispatch* "The cancer test women should avoid at all costs" a few months ago). And now, as I also reported in my online *Daily Dispatch*, the new Director of the National Cancer Institute, Dr. Harold Varmus (a past director of the NIH) is back like a bad penny, poised for another jump over the precipice with an obsessive focus on finding ever more "biomarkers."

And, sad to say, there are many diseases where early detection, even if "biomarkers" are found, simply doesn't make any difference in the prognosis, management, or treatment of the disease. There are also many problems that may correct themselves over time due to the body's ability to heal itself without any need for dangerous tests, procedures, or treatments.

So, before you make your next doctor's appointment, be sure to consider the following very carefully. According to the American Board of Internal Medicine and National Physicians Alliance, these are the "top ten" most commonly performed tests you can actually omit:

1. **Annual physical exam:** On average for healthy adults, rather than detecting real problems, it is more likely to find false positives or meaningless results leading to useless and dangerous procedures and/or more tests that lead nowhere.
2. **Annual EKG:** On average for people without heart disease, it is more likely to mislead than to find early problems—leading to further needless and dangerous tests, drugs, and even surgery.
3. **Annual "blood panel" tests:** For people who feel well in the first place, it is more likely to lead to false positives than to detect new disease.
4. **Annual cholesterol test:** If cholesterol previously tested "normal" (although what is considered normal is constantly being manipulated by industry-motivated NIH "reviews"), this test is needed only once *every five years.*
5. **Annual Pap Smear:** Although this is one very important and successful test for early detection of cervical cancer, it is only needed *every three years* in women who have tested normal.
6. **Prostate Specific Antigen (PSA) to detect prostate cancer:** Experts from the U.S. Preventative Services Task Force no longer recommend this test, saying it causes more harm than benefit. The harm is not from this test itself but that it is frequently misleading, resulting in useless procedures and surgery that frequently cause permanent disability or even death. Studies show that patients not given the

Continued on page 6...

PSA test have no higher mortality than patients faithfully screened for prostate cancer by this test.

7. **Pre-operative chest x-ray:** Many hospitals still require a routine chest x-ray prior to surgery but it is a wasted effort unless the patient has heart or lung disease. The annual routine chest x-ray as part of a yearly physical exam was given up long ago, since the risk from radiation far exceeded any benefit at detection of lung cancer. Of course, now you can give up the annual physical as well.
8. **Bone scans in women under 65 years:** Efforts to detect osteoporosis in younger women have resulted in many women taking dangerous drugs with terrible side effects that are unnecessary (besides, if you wait until you're 65, Medicare will cover this test if medically necessary).
9. **Radiologic tests for low back pain:** If back pain is of short duration (less than 2- 4 weeks), doing imaging studies add no benefit or improvement in outcome. And, as I've said before, the vast majority of patients with low back pain should be treated first with spinal manual therapy, provided by physical therapists and chiropractors, rather than drugs or surgery. And one hospital in Seattle is now doing just that with success (see below).
10. **Radiologic tests for headaches:** The common headache is sufficiently diagnosed by taking a careful medical history and doing a comprehensive neurological exam. Find a doctor who still knows how to provide that.

These 10 recommendations are not just theoretical. They are already being tried with positive results. Local health care providers and some insurers are already improving the system by treating their patients better by providing less care. Following are just a few examples as reported in an editorial in *The New York Times*.[2]

So, before you make your next doctor's appointment, be sure to consider the following very carefully.

Premier Inc. is an alliance of hospitals around the country that has ceased doing useless blood tests and screenings. Over three years in 157 hospitals in 31 states they have saved almost 25,000 lives and reduced costs by almost $5 billion, saving 12 percent of their overall spending.

Virginia Mason Medical Center in Seattle stopped doing useless radiologic tests for headache and back pain, decreasing the use of CT scans by one-quarter. Also, in collaboration with Seattle-based Starbuck's and Aetna Insurance they stopped sending people with low back pain to expensive orthopedic specialists (who could only see them after lengthy and painful waits, and then order a costly CT scan before providing any therapy). Instead they sent back pain patients directly for spinal manual therapy to physical therapists on the same day. Most patients were pain free and back to work in less time than it would have taken them to wait to see a medical specialist. And they avoided dangerous drugs and surgery.

That's true healthcare reform.

So what are the most common regular tests you should get?

They are actually few and simple.

For women over 40 it is useful to get a mammogram every two years. After much controversy about the risks of mammograms, the optimal screening interval and hundreds of millions of dollars spent on research, the data indicate that it's simply not necessary to get a yearly mammogram. Bi-annually is just fine. However, women should perform frequent breast self-examinations (while standing in the shower or otherwise). Breast cancer remains the leading cancer among women, while heart disease is the leading cause of death overall (as in men).

So for heart disease, getting your blood pressure checked regularly is the single most important step you can take to prevent or control your risk. Unfortunately, as I reported in my *Daily Dispatch*, the healthcare system is failing miserably to detect and treat high blood pressure—which is an extremely treatable condition. (For more on how to address high blood pressure effectively, see your *Insiders' Library of Confidential Cures*, which you received free with your subscription).

It's time to give up on all the dangerous and wasteful testing and focus on the things that really make a difference—and can literally mean the difference between life and death.

If your doctor is recommending any of the other 10 tests above, it can't hurt to talk to him candidly about the real risks and benefits. You can refer to the "Choose Wisely" campaign of the American Board of Internal Medicine Foundation. And of course, you can always get a second opinion. And if he doesn't recommend these tests, before you argue to have them just because everyone else is…you may want to consider counting your blessings. Instead, focus on what's really needed to ensure optimal health for whatever area of concern you may have. /C

Citations available online at www.DrMicozzi.com

Can you take lower doses of your prescription medications?

It has been known for decades that certain natural compounds in foods can interfere with the effectiveness of prescription drugs. Certain compounds can facilitate the absorption of various drugs in the intestines, effect their metabolism by the liver, and/or their elimination in the urine. These effects can lead to higher levels in the blood and the need for lower doses.

Of course, this phenomenon can be dangerous if your doctor is not aware of it and does not adjust accordingly.

But the flip side is that you may be able to take lower doses of toxic drugs and still get the same results.

One important food that has this property is grapefruit. We know that grapefruit increases levels of certain antibiotics in the blood. And it has now been shown to be able to reduce the required dose of a toxic cancer drug by three times.

The potent drug Sirolimus was approved for use by organ transplant patients, but it's also used by oncologists as an anti-cancer drug.

And a new study showed that drinking only 8 ounces of grapefruit juice each day causes Sirolimus levels to increase by 3.5 times.[1] It appears that grapefruit acts by blocking an enzyme in the intestines which breaks down the drug. The effect takes place within a few hours and persists for a few days. One cancer patient who was drinking grapefruit juice while taking the drug experienced tumor shrinkage that has now lasted for more than three years.

While there is an option of taking yet other drugs to increase levels of Sirolimus, grapefruit offers a safe, effective, and inexpensive (not to mention delicious and healthy) way to accomplish the same results.

And as reported by the *University of Chicago News* on August 7, 2012, this study was sponsored by the National Institutes of Health (NIH)—not by a drug company. Apparently, the NIH had no comment. But as U of C reported, the authors of the study noted that such studies, "are not necessarily profitable" for drug makers. Especially when the study recommends lower doses of the drug.

No kidding.

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Ancient herbal helps with blood sugar

New research out of the University of Dehli shows that a plant called *Withania coagulens* may help regulate blood sugar.

The study was published in the *Journal of Medicinal Foods*. Researchers looked at the effects of a water-based extract of the Withania fruit.

Withania coagulens is an ancient Ayurvedic herbal remedy. Withania is in the solinacea family, which is well known worldwide for its potent biological activities. Like many Ayurvedic remedies long known for a particular health benefit, modern research is revealing multiple healing properties for these ancient herbs.

In this most recent study, Withania coagulens was administered to laboratory animals that had been made diabetic by an experimental procedure.[1] Several measures of glucose metabolism were assessed, including blood sugar levels following a meal, storage of sugars in tissues, activity of enzymes involved in sugar metabolism, and hemoglobin A1C, or glycosylated hemoglobin, a measure of long-term blood sugar levels.

Results showed that Withania coagulens significantly lowers blood sugar levels probably through its effects on insulin and other enzymes involved in the regulation of blood sugar. This is just one study of a growing body of evidence on the potential benefits of Withania coagulens.

Withania coagulens is in the same plant family as Withania somnifera, or Ashwagandha. Research on Ashwagandha is more extensive, and has also shown potential in helping to promote healthy blood sugar levels, among other health benefits. And while modern research is still building, traditional use of Withania provides evidence of its worth for centuries in the Ayurvedic medical tradition.

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Mineral Medicine

Selenium can fight *cancer*, but what else can it do?

New research shows supplementing with selenium and zinc may benefit patients with liver cancer and cirrhosis.[1] But…in terms of real "news," this is yet another case of "new" research that's the same as what we found 30 years ago!

The question to be answered is, *"What else can selenium do?"*

It's high time researchers and the government agencies that fund them, like the NIH, start looking outside the box. To thoroughly review the full evidence of what's come before and to stop repeating the same studies.

For years we have been starving for research that will take integrative medicine into truly new directions to directly benefit patients, medical practice and the healthcare system. Like the study on selenium I shared in last month's issue, which showed its potential for fighting diabetes.

In the meantime, here's what we already know:

Yes, selenium can help prevent and fight cancer. But you must be careful to get the dosage right.

As with other minerals, selenium is found in the soil. Thus, selenium levels reflect the ground in which plants were grown for food and the plants that cattle eat.

As a result, there are marked regional variations in environmental selenium levels. In high selenium areas there's a risk of developing selenium toxicity, which may lead to deformities of bones and teeth and other health problems.

In areas that are low in selenium, deficiency may develop. This condition can result in a cardiomyopathy (abnormality of the heart muscle) that leads to heart disease and heart failure.

Aside from these extremes of selenium deficiency and selenium toxicity, most of the research on selenium actually relates to its ability to prevent cancer.

Selenium is a powerful antioxidant, which means it helps protect against oxidative stress and free-radical damage. It is thought to work well in partnership with vitamin E. Selenium also supports your immune system, and plays a part in human growth and development.

Several studies show that the level of selenium in the food of a given population is related to their rate of cancer. The lower the selenium, the higher the risk. In over 27 developed countries, the overall cancer mortality rate as well as mortality rates from leukemia and cancers of the colon, rectum, breast, ovary, and lung all are related to average per capita intakes of selenium.

Within the United States, cancers of the breast, colon, rectum, and lung are inversely related to the amount of selenium found in blood samples.

Similar results are found in China, where they actually fortify their foods with selenium to help counter deficiency. In a study conducted in 24 locations in China, there was a significantly lower rate of death from cancer and with higher amounts of selenium in the blood. This research is of course related to overall dietary intake and population studies.

But in fact, I had the opportunity of serving as the principal co-investigator on a cancer prevention study using selenium in a county in China. This county (Qidong County, Jiangsu Province) had a high incidence of liver cancer. The areas that had low levels of selenium in the blood or in the locally available grains had a higher rate of liver cancer—and by giving selenium supplements it is possible to raise selenium in blood to levels that prevent cancer.

Supplementation has also been shown to be effective in blocking the formation of chemically-induced tumors in the gastrointestinal tract, liver, breast, skin, and pancreas in laboratory animals. And in human clinical trials, supplementation has been shown to prevent skin cancer and lower the risk of other cancers.

Other studies have clearly shown protective effects of this trace element even when given after carcinogen exposure. Such results suggest that selenium owes at least part of its effects to a decrease in the spread of any cancer cells that form.

Remember to use caution when it comes to dosage

The cancer protection offered by selenium is generally observed at concentrations greater than those known to meet the requirements for normal growth and metabolic activity (i.e. the RDA). And, as observed with other nutrients, continuous intake of selenium is necessary for maximum inhibition of cancer.

However, as I pointed out in last month's issue, while selenium toxicity is rare, it is a real concern. To avoid side effects and potential toxicity, it's best to keep selenium intake at or below 400 mcg per day. Organic forms of selenium, such as selenomethionine, are absorbed as well as sodium selenite salt, but can persist in the body longer and thus theoretically pose a higher risk of toxicity. IC

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