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Which vaccines do you *really* need?

On page 4, I talk about the pressure we're all under to get an annual flu vaccine. But you and I both know your healthcare providers aren't likely to be content with just one vaccination. They want to inoculate you against a whole host of health conditions.

Pneumonia. Shingles. Tetanus. Even childhood diseases like mumps and measles.

But do you really need all—or *any*—of these vaccines?

Confusing immunization "facts" can spread as quickly as…a virus. So it's no wonder you may be concerned about vaccinations. Especially as you age, and are bombarded with propaganda about more "essential" vaccines you "must" have.

At the same time, there are increasing concerns that the more vaccines you get, the more imbalanced your immune system becomes. And an imbalanced immune system can make you more susceptible to chronic diseases. Not to mention the public health consequences of eliminating natural immunity in the population.

Then there's the shocking lack of science (*and* lack of effectiveness) of the government's influenza vaccine. It's certainly enough to make you wonder whether it's worth getting jabbed with *any* vaccination needle.

Based on my concerns about the flu vaccine, you may think I'm against vaccines in general.

But let me be clear. As I have said before, I am not anti-vaccine. I am pro-science.

Throughout my career, I have witnessed important developments in the history and science of vaccines. And I've found that some of the more recent vaccines are ones we would actually be better off *not* getting.

So let's take a look at the science behind common vaccines. And whether that science suggests you should—or shouldn't—get a particular vaccine.

But first, it's helpful to know the dramatic history of vaccines. And how that has led to where we are today. An environment where healthcare workers feel increasing pressure to inoculate everybody for everything.

Immunization goes back over 200 years

Some of the greatest advancements in modern medicine resulted from the ability to vaccinate people against deadly infections.

For instance, Dr. Edward Jenner's experiments with cowpox in England led to average village doctors throughout the Western world being able to provide smallpox immunity to their patients by the late 1700s. Centuries before, Eastern doctors accomplished the same thing for some residents of the vast Chinese empire.

Of course, neither East nor West knew then about viruses or the germ theory of disease. They just based their findings on trial and error and observation (which is how Chinese medicine still works).

When the germ theory did become widely understood and accepted, it led to development of more vaccines during the late 19th and early 20th centuries. Some were developed by doctors who worked in the same job I held myself, almost 100 years later, at Walter Reed Army Medical Center (including Dr. Walter Reed himself).

One of the most notable vaccines to emerge in the mid-20th century was the injectable polio vaccine, created by Dr. Jonas Salk, whom I once had the privilege of meeting later in his career.

The debate over polio vaccines

Interestingly, Salk's vaccine kills the polio virus once it enters the bloodstream from the gastrointestinal tract. This is important because if polio gets into the bloodstream, it can then migrate into the central nervous system (CNS)—causing the dreaded "infantile paralysis." But the vast

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In this issue:

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majority of younger children who are exposed to the polio virus just end up with a GI infection. The virus never gets into the CNS. And children who get this GI polio infection develop lifelong immunity to the disease—without being vaccinated.

Dr. Albert Sabin later developed the oral polio vaccine. (I met Dr. Sabin more than once, and about 10 years ago, I was even interviewed to head the Sabin Foundation for Infectious Diseases.) But there is a problem with the oral polio vaccine—it prevents natural GI infections caused by the virus, which means that children can't develop the natural immunity I mentioned above.

Without natural immunity, doctors have to make sure to vaccinate each and every child. Otherwise, there would be pockets where there was no immunity at all—and every child would be susceptible to polio when it periodically came through the population. And potentially at older ages, when contracting the virus is more likely to cause paralysis (as in the case of Franklin D. Roosevelt, who got polio as a young adult).

Scientific debate between oral and injectable polio vaccines continues to this day. I had my own "debatable" encounter with polio when I was doing fieldwork in Southeast Asia in 1977.

There was an outbreak of polio in a jungle village, and the local government health officials refused to investigate it. Fortunately, Catholic priests from the nearby Columban Mission were happy to guide me and help map the outbreak—which we traced to a contaminated common water source.

I turned in the maps and data to the local health authorities, who refused to do anything. Instead, they castigated me as a foreigner for interfering and "insulting" what must have been their very fragile egos. They even lodged incendiary complaints against me with my sponsoring organization back in the U.S. It was a shocking and dispiriting introduction to government public health for me.

The eradication of smallpox

Like the polio vaccine, smallpox vaccination was another great global achievement. It was so successful that during the late 1970s, medical teams working for the World Health Organization were able to isolate the last remaining pockets of smallpox in the horn of Africa.

As a new medical anthropologist, I was asked by a senior health professional at the CDC (which was good at doing its job back then because it still focused on its mission against infectious diseases) to speak at an annual American Anthropological Association meeting in the 1980s. You see, these infectious disease doctors realized they needed anthropologists to figure out the cultural and social factors that were keeping people from getting vaccinated. So the CDC wanted me to help generate awareness about completing the eradication of smallpox and other infections.

Unfortunately, I learned the ivory-tower anthropologists were not really interested in anything as relevant as helping to eradicate an infectious disease that had been a scourge of human populations since earliest recorded history. Although many did make politically correct careers writing about how smallpox and other diseases introduced by Europeans had decimated Native American and other populations hundreds of years ago. (And a few well-trained medical anthropologists who could not get an academic position, because medical anthropology was not yet a recognized field, even ended up working for the CDC.)

But in terms of contemporary

medical practice, these academic anthropologists were more interested in studying how indigenous concepts of belly buttons related to beliefs about causes of illness (or maybe it was their own belly buttons they were interested in studying—I never quite got that straight).

Thankfully, my faculty advisor for my MD/PhD in anthropology, Nobel laureate Baruch Blumberg, wasn't one of those ivory-tower investigators. He did early research with Dr. Irving Millman to develop a hepatitis B vaccine before Merck took over the research. (Blumberg was awarded the Nobel Prize in 1976 for discovery of the virus.)

How the "golden age" is turning into a bureaucratic rage

The idea of being inoculated against every conceivable virus may sound appealing in terms of disease prevention. But as with pharmaceutical drugs, it seems the last generation of vaccines has really stuck us with some problems.

Part of this is due to the emergence of a sub-specialized field of "virology" that includes many scientists and physicians. These careerists see every health issue as a nail that needs to be pounded. So they focus on developing the technology to "hammer" viruses with vaccines.

Take the human papillomavirus (HPV) vaccine, for instance. This vaccine is very controversial, as I have often reported. In fact, some doctors and whistleblowers have described it as the greatest medical scandal of the century.

Why? First of all, in terms of the actual infection, HPV is not any more dangerous than viruses that cause the common cold. And there is no data showing the vaccine actually prevents cervical cancer. Finally, the vaccine works against only a few of the HPV strains—and the latest concern is that vaccinated women may be more likely to get infected with higher-risk strains of the virus.

Plus, there are already excellent, safe screening techniques that effectively help prevent cervical cancer (which is already relatively rare and becoming more rare) without any vaccination.

Sadly, the push to give every girl the HPV vaccine is less about public health and more about profits. Which is ironic because previous generations of vaccine developers, including Dr. Jonas Salk, gave away their creations for the benefit of humankind.

But that all changed when today's big pharma entered the vaccine industry. Drug companies started complaining they couldn't make enough money from vaccines. So our "public servants" in Congress got into the act of vaccination.

These bureaucrats were convinced to pass legislation making drug companies "immune" from malpractice lawsuits for all of the harm done by their vaccines. Instead, there is a vaccine injury compensation fund (which the taxpayers are stuck with). But according to many consumers, trying to get compensation for vaccine injuries is like trying to pass the proverbial camel through the eye of a needle.

So where are we today? Certainly, there are too many useless and dangerous vaccines. But that doesn't mean all of the current vaccines are worthless.

Vaccines you should consider

Pneumonia. Dr. Robert Austrian, my former professor at the University of Pennsylvania and colleague at the College of Physicians of Philadelphia, spent his career developing an effective vaccine for pneumonia.

Pneumonia is the eighth leading cause of death in Americans. And people over age 65 are particularly at risk. The good news is that the vaccine prevents pneumonia in 60 to 80 percent of people over age 65.[1] That's why I think older people—and younger people with chronic diseases or immunological problems—may want to consider getting this vaccine. One vaccination will usually last your entire lifetime.

Chickenpox/shingles. Painful (and now distastefully well-publicized) shingles outbreaks are triggered by the same virus that causes chickenpox during childhood. If you had chickenpox or were vaccinated against it, the virus may be reactivated in later life as shingles.

One clinical trial of 38,000 people age 60 or older found that the shingles vaccine reduced the chance of suffering an outbreak by 51 percent. You've got better odds if you're under age 70—the vaccine was effective for 64 percent of that age group. But for those age 70 or older, the vaccine only reduced the risk of shingles by 34 percent.[2]

So consider those odds when deciding whether to have a shingles vaccine.

Another factor to take into account is that shingles appears to have become much more common since universal childhood vaccination for chickenpox started. So that suggests you may have more protection from shingles if you actually had chickenpox as a child—rather than receiving the vaccine.

If you've never had chickenpox or been vaccinated against it, I recommend getting the vaccine. It can be very dangerous to get chickenpox as an adult. You may end up with serious complications

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like encephalitis, myocarditis (inflammation of the heart), or pancreatitis.

Vaccines that probably aren't worth it

Measles, mumps, rubella (MMR). Healthcare workers may try to tell you that even if you had this trifecta of diseases as a child, you still need a vaccination as an adult. But there is no reason for older adults to get this vaccine.

Even the vaccine-pushing CDC admits that if you were born before 1957, you're "generally considered immune" to measles and mumps.[3] You don't need any so-called "booster shot."

But today's children must have the MMR vaccine to be allowed to go to school (and of course, children have to go to school—typically without choice of public schools). So that means natural measles, mumps, and rubella immunity will soon be gone from the general population, requiring all children in every new generation to get the vaccine. Forever. What a gold mine in those steel needles.

Meningitis. The only time this vaccine is really useful is for young people who live in close quarters like college dorms, boarding schools, and camps where the disease has been known to spread. It seems that today the typical college student is more interested in having multiple "close contacts" than, say, hitting the books, so it might make sense for them.

But for older adults, the risk of getting meningitis is very low, making the vaccine unnecessary.

Tetanus. This vaccine doesn't protect against a virus, but rather against a toxic chemical made by anaerobic bacteria that hide deep in the soil. This bacteria can burrow deep into your injured tissues and cause infection.

Many doctors say they have never seen a single case of tetanus (lockjaw) in their entire medical careers. And the vaccine requires a booster every 10 years—which may unbalance the immune system. Taking all of that into account, tetanus vaccines may simply not be worth it—at any age.

Don't succumb to the politics of vaccinations

The big questions when it comes to all vaccines are really a matter of elementary logic. If vaccines work so well and provide immunity to those who get them, why are so many parents, teachers, physicians, and government bureaucrats so insistent about taking away all choice and forcing *everyone* to get potentially dangerous vaccines—because somehow the unvaccinated are a threat to others?

If you get a vaccine and become immune, then you are protected from that infection. Regardless of whether someone, or anyone, else is vaccinated and protected. So why bully, hector, and strong-arm everyone around you to get a vaccine for your own protection?

This issue came up in a recent Republican presidential debate. Three of the candidates, including two who are licensed physicians, raised serious questions about mandatory vaccination.

No matter where you come down on the subject, one thing is true. Without universal vaccination, there is still the opportunity for natural immunity to develop in the population (as it can with polio). But universal vaccination requires that everyone—everywhere, forever—get vaccines.

Bottom line: eliminating all natural immunity in the population may have long-term, unforeseen consequences for the human immune system and health.

So be aware and be informed the next time you hear you "must have" a certain vaccine. I always say the least medicine that works is the best medicine. Likewise, the fewer vaccines needed to sensibly protect your health, the better. IC

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7 natural ways to stay cold and flu free—*without* vaccines

The pressure is on full bore now to go out and get your annual flu vaccine.

But as you know, I and many others are troubled by the flu vaccine side effects that are reported in other countries (but that only some people, including my readers, ever seem to hear about in the U.S.). Serious side effects like convulsions, narcolepsy, and compromised immune systems.

And then there's the lack of evidence that this vaccine really works.

There is no evidence it really helps older people. There is no evidence it works in children. And last year's vaccine did not appear to work at all in anybody, anywhere.

So here's what I recommend. Every time a doctor, nurse, or pharmacist asks you to get a vaccine, ask them how much research they have done on the safety and effectiveness of the vaccine.

I estimate I perform about 20 hours of research per month on the latest findings worldwide on vaccines, including the flu vaccine. That's 240 hours per year. Does your doctor, nurse, or pharmacist do that much research on what he or she recommends?

If you really want to stump your healthcare providers, ask them why they're pushing flu vaccines when there are 7 simple steps everyone can do to protect themselves from cold and flu viruses *better* than a flu vaccine can.

And then hand them the following list.

My top cold and flu fighters

1.) Don't automatically shake hands. We have heard a lot about Donald Trump lately. But did you know The Donald practices germ avoidance by refusing to shake hands with others?

Maybe he just can't afford to be sick. After all, cold and flu viruses are spread by contact, and who knows where someone's hands have been? Among other unique characteristics, Trump may be the first politician not to shake hands—and he is still coming out ahead so far.

2.) Regularly wipe down your keypads and phones. Another presidential candidate is good at "wiping" things clean (or maybe not so good, according to the FBI)—like personal computer servers that hold government classified documents. But wiping down surfaces, in other contexts, can be a very healthy practice.

Phones and keypads can be germ-breeding grounds. And they come into close contact with mouths, eyes, ears, and hands—all of which are disease transfer and entry points. So wipe down these devices regularly with alcohol, an alcohol-based hand sanitizer, or slightly soapy water (do not soak!) regularly.

3.) Stay sanitary in public restrooms. You already know to wash your hands after using the bathroom. But public restroom sanitation goes beyond that. As I reported in the February issue of *Insiders' Cures* ("The shocking source spreading cold and flu viruses"), public restroom door handles, toilets, faucets, soap dispensers, and hand driers are all loaded with bacteria and viruses.

After you wash your hands with soap and water, avoid the hand dryer. Research shows it just blows bacteria and viruses throughout the restroom. Instead, dry your hands with a paper towel and then use that towel to open the door when you exit the bathroom. Doorknobs are *teeming* with bacteria and viruses—especially in public restrooms.

In your own bathroom, close the lid before you flush to cut down on airborne germs.

4.) Carry hand sanitizer in your car. Now that we have to pump our own gasoline (except on the New Jersey Turnpike), gas pumps have become some of the most contaminated surfaces anywhere.

Visit the restroom and wash up after pumping gas, or clean your hands with sanitizer. In fact, you should always keep alcohol-based hand sanitizer (that doesn't contain the toxic chemical triclosan) in your car. Spritz your steering wheel and stick shift (or run your hands over them while they're still wet after applying gel sanitizer) whenever you get in the car—especially after pumping gas.

5.) Give your purse, briefcase, or bag a boost. Think of how many germs your satchels literally sit on when you put them on the floor in public places. And then how those germs can transfer to your hands when you pick up your bag.

Hang the strap or handle of your briefcase or purse over the back of a chair or other hook, or simply put your bag on a chair or bench—not on the dirty floor.

6.) Hold your breath. If someone in a public place is sneezing or coughing, just turn away and hold your breath for a few seconds. This will help keep you from inhaling the germs released into the air. Then, avoid touching surfaces and don't touch your face—until you can get to a less contaminated area.

This precaution reminds me of school sports physicals. To check for a hernia, the doctor says, "Turn your head and cough." The cough increases the pressure inside the abdomen, which can cause any hernia to appear. I used to wonder about the complex pressure dynamics involved in coughing while turning the head. When I got to medical school and asked about it, the professor laughed and said the school doctor was just avoiding getting repeatedly coughed in his face!

7.) Don't ever underestimate the importance of sleep. There's plenty of evidence showing that lack of sleep increases your risk of getting a cold, flu, or other illness.

And now a new study quantifies that risk. Researchers found that people who sleep less than six hours a night are over *four times* more likely to get a cold than those who get more shuteye. (The study was done in Pittsburgh rather than New York because, you know…it's the "city that never sleeps.")

The researchers sequestered 164 volunteers in a hotel. Each study participant was given a cold virus via nasal drops, and then monitored for a week. The researchers discovered that the people who slept fewer than six hours per night were 4.2 times more likely to come down with a cold compared to people who slept seven

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or more hours per night. And people who spent less than five hours sleeping were 4.5 times more likely to get a cold.[1]

In other words, just one extra hour in bed each night can help you avoid having to spend days in bed with a severe cold.

In fact, lack of sleep was the biggest risk factor for coming down with a cold in this study—more than age, stress levels, alcohol intake, ethnicity, education, or income. Even the great villain of government public health, smoking, was less likely to cause a cold than lack of sleep.

So if you're wondering why it seems so many people these days always seem to have a cold, it may simply be because of lack of sleep. Something, as I mentioned last month, the CDC has identified as yet another public health "epidemic."

Along with illnesses, the CDC says insufficient sleep is linked to motor vehicle accidents, industrial disasters, and medical errors. (When I was in medical training, we were told that young physicians don't need sleep, but apparently, sleep-derived doctors finally "woke up" to the fact that doctors are human too).

The National Sleep Foundation did a survey in 2013 that found one out of five Americans get less than six hours of sleep on work nights, and more than half get less than seven hours' sleep. The U.S. ranked lowest in total sleep hours among the six countries surveyed.[2]

Another new study sheds light on how the relationship between sleep and immunity works.[3]

It has to do with how your body has a built-in 24-hour "clock" that regulates hormonal functions, physiology, and behavior. This clock is called the circadian cycle. And this cycle is found in every animal and plant that has a lifespan longer than 24 hours, including single-celled organisms. It's another factor that shows how closely we are tied to nature, or should be.

The researchers who conducted this study noted that disruption of the circadian cycle affects almost everyone in modern society, due to factors like artificial lighting, working at night and shift work, jet lag, and even the light emitted at night by cell phones and tablets.

In the study, the researchers disrupted the normal 24-hour clock of mice by putting them on 20-hour clock out of synch with the day-and-night, light-and-dark cycle.

The researchers found that even though the mice still got enough sleep, their immune response wasn't normal. Which made them more vulnerable to illness. That suggests that for good health and immunity, not just the *amount* of sleep but the *quality* and *timing* of that sleep are important.

In other words, if you want to fight flu, colds, and other viruses, get enough sleep and go to bed and wake up around the same time each day. (This gives new meaning to the old Italian-American saying about "going to the mattresses.")

And of course, help keep your immune system strong with a healthy diet and a supplement regimen that includes a high-quality B vitamin complex every day, 250 mg of vitamin C twice a day, and 10,000 IU of vitamin D per day.

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The heart hazard throwing aging into overdrive

And the surprising vegetable that can help you slam on the brakes

Along with turkey and yams, I encourage you to add some beets to your Thanksgiving dinner this year.

Why? Because beets are highly nutritious and contain a number of unique, biologically active compounds. In fact, beets are loaded with the cellular powerhouse betaine, aptly named since it was first isolated from beets.

And when it comes healthy aging, it's hard to beat betaine.

Betaine, also known as TMG or trimethylglycine, is a type of amino acid made from choline—an essential nutrient that's often grouped with the B vitamins.

It has remarkable ability to help protect cells against oxidation. And, as you know, oxidation is a culprit in all kinds of chronic diseases, including cancer, heart disease, dementia, Alzheimer's, and Parkinson's.

But perhaps most unique are betaine's effects on homocysteine.

The biology of betaine and homocysteine

Of course, the most well-known risks associated with elevated levels of homocysteine are heart attacks and strokes. But the dangers of excess homocysteine go far beyond your cardiovascular system.

You see, too much homocysteine can disrupt the body's methylation process.

This is key because methylation helps control many important

functions throughout your body. You need methylation for energy production, immune response, repairing cells damaged by free radicals, fighting inflammation, genetic expression and repair of DNA, detoxification, and even lowering your stress levels.

In short, virtually everything that helps you feel young and healthy relies on methylation.

Unfortunately, your body's methylation capability can erode as you grow older. And, at the same time, your homocysteine levels can begin to creep up.

Although no absolutely "safe" level of serum homocysteine has been determined, research suggests that levels should be less than 12 mcmol/L—especially if you have other cardiovascular disease risk factors.[1,2]

Ideally, studies show that homocysteine levels should be kept under 8.5 mcmol/L. But here's the kicker: You probably have no idea if your homocysteine levels are too high because you generally won't have any symptoms.

That's why it's important to have blood tests for homocysteine. And it's also a good idea to get your vitamin levels tested, along with tests for genetic defects that could cause your body to produce excess homocysteine.

If your homocysteine levels are too high, getting the proper nutrients from your diet and supplements is the most effective way to reduce them.

And that's key for healthy aging—including protection against heart attack and stroke.

How to feel younger, longer

I recommend the following daily supplement regimen to keep your homocysteine levels in check (and for overall good health).

These nutrients have been shown to either help keep your body from producing too much homocysteine, or help it metabolize and reduce homocysteine.

- 250 mg of alpha-GPC
- 250 mg of alpha-lipoic acid with biotin
- 100 mg of CoQ10 (ubiquinol)
- 3 grams of fish oil
- 200-400 mcg of selenium
- 500 mg of vitamin C (in two divided doses of 250 mg each)
- 200 mg of vitamin E (gamma E tocopherol/tocotrienols)
- 30 mg of zinc

I also recommend a high-quality B vitamin complex that contains at least 200 mcg of folate, 50 mg of B6, 12 mcg of B12, 50 mg of B2, and 50 mg of choline. Curcumin (200-900 mg a day) is also a potent, healthy addition to any diet.

And, of course, make sure to incorporate plenty of beets in your

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A healthier use for beets

Historically, in marginally nourished populations living in climates that are relatively poor for crop cultivation, a "beet and potato" (versus the proverbial "meat and potato") diet has been able to sustain people. For example, in Eastern Europe and Russia.

In the U.S., "beet and potato" agriculture is also important to the economy of certain states like Idaho.

Idaho has a relatively small, close-knit population, and I developed close contacts with many business and political leaders there 12 years ago.

Some of those people made huge fortunes from supplying potatoes to McDonald's for French fries (which are simply a vehicle for unhealthy oils and excess calories). Others became wealthy by supplying beet sugar to food companies. But some were looking toward the future.

I told Idaho growers, as well as government agencies involved in agricultural and economic development, about manufacturing betaine from beets, instead of sugar. After all, people need a lot less sugar and a lot more betaine. Plus, I calculated that, pound per pound, betaine is priced over 10,000 times higher than sugar.

Former Sen. Larry Craig (R-Idaho) and his staff showed strong interest. They understood that sugars and carbs represent the past, and that growing healthy plant constituents like betaine represents the future. But then the good senator got caught in an airport literally with his pants down (although I never really understood what that had to do with anything). And, as a result, nothing ever came of my betaine suggestion.

It's a shame, because as more and more public health experts come around to the realization that sugar and carbs are driving the obesity, diabetes, and heart disease epidemics, the business of making sugar and French fried potatoes is starting to dry up.

And betaine could have been a real "rainmaker" to keep Idaho growers in the green.

diet. You can eat them raw in salads, or cooked with any main course. They're particularly healthy—and tasty—when cooked with garlic. If you're not a fan of beets (or garlic), you can supplement with 2-4 grams of betaine a day.

Other supplements that can help you regulate homocysteine include micronized creatine (2-4 grams daily), lecithin (1-2 tablespoons of pure granules per day), serine (3-6 grams daily), N-acetyl-cysteine (600- 1,200 mg daily), and cysteine (500-1,000 mg daily).

To help repair any tissues that are affected by high homocysteine levels, along with the CoQ10, fish oil, alpha-lipoic acid, selenium, curcumin and vitamin C and E doses I mentioned above, I also recommend any or all of these nutrients and herbs:

- Garlic: 500-1,000 mg daily
- L-arginine: 500 mg daily
- Policosanol: 10 mg daily with evening meal
- Ginkgo extract: 120 mg daily
- Grape seed extract: 300 mg daily
- Green tea extract: 2 grams daily
- Bromelain: 500 mg daily
- Ginger: 10 grams daily
- Chromium: 200-400 mcg, once or twice daily
- Pantethine (B5): 30 mg three times daily
- Niacin (B3): 50-80 mg daily IC

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Meat and fish help you stay stronger longer

The evidence just keeps piling up that most people need to eat more fish and meat. Especially as we age.

Why? Well, beyond all of the vitamins, minerals, and other nutrients these tasty foods contain, they're also *the* top sources of protein.

As you know, protein plays a vital role in maintaining the health of your body and brain. But new research shows that many older adults don't eat enough protein to maintain healthy muscle mass.[1]

If you're not an Arnold Schwarzenegger, you may not think this shortfall is important. But muscle mass is critical for many bodily functions. Your heart is a muscle. Your blood vessels and digestive system have muscle. Even your tongue is made up of muscle.

And of course, there are the skeletal muscles, which are particularly important as you age. Weak muscles don't protect the joints, which can lead to arthritis. And less muscle mass can lead to gait changes, reduced activity, more falls, and overall fatigue—which are some of the biggest factors associated with longevity.

But simply eating more meat and fish each day can help preserve your muscle mass, keeping you stronger, longer. And that makes even everyday tasks like carrying groceries, gardening, and just walking around much easier.

As I've mentioned before, previous research has shown the government guidelines for meat and protein intake appear to be about half of what people really need. But this new study took protein recommendations a step further. According to these researchers, beef isn't just for dinner anymore. In fact, they recommend eating meat at *every* meal—not just once per day.[2]

This guideline is particularly important if you're trying to lose weight. The researchers found that consuming protein throughout the day helps preserve muscle mass while you're cutting calories.

The goal of healthy weight loss is to reduce body fat without losing lean body mass. This study is another demonstration (at the cellular level) of a basic truth I've told you before about healthy diets: When restricting calories, it is critical to cut sugars and carbs while preserving protein intake.

Protein like meat and fish is also nourishing and satisfying, which helps you feel full and less prone to snack on less healthy foods.

So how much fish or meat should you eat? A serving about the size of your open palm is a good "rule of thumb."

And in addition to protein from meat and fish, another new study shows that fish oil also increases muscle mass and physical performance in older adults.[3]

Researchers gave 60 healthy men and women ages 60 to 85 years old either fish oil or a placebo oil daily for six months.

At the end of the study, the fish oil group had a 4 percent increase in thigh muscle mass, a 5-pound increase in handgrip strength, and 4 percent improvement in lower and upper body strength.

The researchers concluded that fish oil can be effective for preventing age-related muscle loss—and that it helps older adults maintain their independence.

Along with 1 to 2 grams of fish oil a day, I also recommend dietary supplements containing 400 mg of dandelion extract and aspal (South African red bush). These two herbs together have been shown to improve muscle performance and vitality—which are associated with longevity—in older men. IC

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