This week's lesson is a biggie, and has generated quite a bit of interest with recent coverage of the swine flu. There is more writing and fewer exercises, and there are a few items that you're going to want to buy as soon as possible.

We were going to cover flu pandemics, chem/bio attacks, and what I like to call, "Ghetto" medicine, but the flu pandemic section has grown so much and I've gotten so much more information from my panel of experts that I've given it it's own dedicated week.

Next week, we'll cover the chem/bio attacks and "Ghetto" medicine and I'm extending the course an additional week at no charge so that you'll still get all of the information I promised you.

We're going to cover a lot of ground and I'm going to do my best to give you thorough answers while keeping the lesson readable and the pace fast. At the end, I'll direct you to some additional in-depth resources.

I've consulted doctors, naturopaths, a bio-weapons expert who studied under the head of the Soviet Bio-Weapons program, and a genetecist who specializes in viruses for this lesson.

Like you, I'm particularly concerned about whether or not the threat is real, how to avoid the threat, and how to deal with it if it becomes a reality.

To begin with, let's talk about what the flu is and briefly decipher what all of the letters and numbers associated with the swine flu actually mean.

Swine flu is a virus that affects the respiratory system and is caused by the type-A influenza virus. There are 5 types of flus and type-A is by far the most common and the only one we will address today.

One of our seasonal flus is the H1N1 version of the virus and this year's A(H1N1) virus is basically an adapted version of our normal flu that has genetic materials from the pig version of the flu.

Virus adaptation is a normal process and all flus adapt to one extent or another as a means of self-preservation so that they will be able to infect people who have developed natural immunity to a previous strain.

The H and the N are simply the first letters of two protiens that make up the flu virus. They are hemagglutinin and neuraminidase. Basically, it's easier to say and write A(H1N1) than to write influenza type-A(hemagglutinin type-1, neuraminidase type-1). "Swine Flu" is even simpler, but they all mean the same thing this flu season.

The numbers are different versions of the protiens, so the A(H1N1) virus is simpy the type-A flu with the type 1 hemagglutinin protein and the type 1 neuraminidase protein.

There are 19 types of flus that have been identified and 12 types have caused human deaths. The A(H1N1) is the same version of the flu that caused the 1918 flu pandemic, but "same" is somewhat of an overstatement. While both versions of the virus were type H1N1, the 1918 version was much more aggressive than the current one has been so far.

That being said, this version of the H1N1 virus is potentially deadly because it carries a swine version of the H1 protein that is different than the human H1 protein that many people already have developed immunity for.

How does the flu form?

The origins of flus in general and the swine flu in particular are debatable, but the most accepted theory is that the virus lives normally in birds without causing them any problems. When birds are in close proximity to pigs, occassionally the virus will infect a pig.

As the pig's immune system fights off the virus, the virus changes genetically to survive and then the virus is able to spread from pig to pig.

This was the case with the H1N1 virus. It was fairly stable in pigs for several decades, passing freely from pig to pig, but with only a few isolated human infections.

Pigs and humans are both suseptable to type H1 & H2 viruses, so when a bird passes one of those types of the flu to a pig and the pigs are in close proximity to humans, the virus has a chance to make additional adaptations to survive in humans. The H1N1 virus did this in 1998 by combining the existing proteins from bird flu, swine flu, AND adding proteins from human flu.

This process can occur anywhere where humans are in close contact with pigs and pig waste. Two primary situations are near pork production facilities and in cultures where pigs are seen as part of the family and sleep in the same area as people do.

This is most common in Southeast Asia, and the chain of events that has caused many of our widespread flus is fairly straightforward.

In the springtime, farmers (some of who have contracted the flu from their livestock) in Southeast Asia travel and get together in large groups for livestock fairs, Chinese New Year celebrations, Easter celebrations in the Philippines, and other springtime holidays.

These large gatherings allow the flu to spread from human to human and get spread through the region and internationally. Typically, flu seasons are worse during rainy years because people spend more time indoors (away from UV light) and in closer proximity to other people.

Why was the 2009 flu originally called the Mexican Flu?

There are a couple of theories on this:

First, If you've noticed in your grocery stores, a lot of produce now comes from Mexico. This is not just a US phenomenon. China also buys much of their produce from Mexico and one theory is that that the swine flu was transferred from China to Mexico by Mexican farmers attending a produce conference in China early in the spring of 2009.

They may or may not have been symptomatic before spreading the virus.

Second, it's very possible that the 2009 strain made the jump from pigs to humans in Mexico.

The first identified patients (patient 0) with this strain of the flu were believed to be from La Gloria, a town of 3000 people and 15,000 pigs east of Mexico city. Almost 30% of the town suffered from flu-like symptoms and three young children died shortly before Easter, 2009.

Everything changed when people traveled to visit relatives for Easter. Within a week, people started coming down with A(H1N1) across Mexico, and soon, thanks to international travel, across the globe.

We may never know where this strain truly made the jump from pig to man. No country wants to take credit for it, and the cities and facilities in question have made it difficult for researchers to determine the origin for the exact same reason. In reality, it's fun trivia, but if you get the flu, it really won't matter whether it started in China or Mexico, so I urge you not to get too hung up on it.

In any case, the theories have parallels:

1. People living close to pigs/pig waste
2. The virus makes the jump from pig to people
3. The virus makes the jump from people to people
4. Infected people travel and spread the virus

A brief history of flu pandemics (& pandemic scares)

Just so you know what the words mean, pandemics are simply epidemics that cover a large area and affect a large percentage of the population. Epidemics are infections that spread rapidly among a population.

Said another way, pandemics are infections that spread rapidly among a population and cover a large geographical area.

The 1918 flu pandemic is the most commonly cited flu, and there are some pertinant facts that are important today since they're both A(H1N1) strains.

1. It had up to a 2 week incubation period, but killed in as fast as 2-3 days of getting symptoms, which was too fast for the medicines of the time to help.
2. Although called the Spanish Flu, it's believed to have made the jump from pig to human either in China or on a US pig farm in Kansas and spread to Spain by US troops. (similar to the possible misnaming of the "Mexican" flu)
3. It's estimated that 500 million of the world's 1.8 billion people contracted the flu and it killed between 25 and 50 million, although some estimates are as high as 100 million.
4. Very few people died of the flu, but rather most died from secondary infections including Strep-Pneumonia.
5. The virus showed up initially in the spring, went dormant in the summer, exploded for 8 weeks in the fall, went dormant again, and re-emerged in the spring of 1919.
6. Normally, people with bad strains stay home and recover while people with mild strains continue their normal activities spreading the mild strain. In 1918, soldiers at war didn't have the option to stay home and spread the more deadly strain.

Modern application of this is people crowding doctors' offices and Emergency Rooms with flu-like symptoms. Some people will have nothing, some will have mild strains (and weakened immune systems) and others will have the more severe strain and spread it to the others who will be released to go back to their daily lives.

The 1957 flu pandemic was a type H2N2 from pigs and was much milder than the 1918 virus, killing only 2 million worldwide. Interestingly enough, the H2N2 virus hasn't had a widespread reach since the 1968 flu season.

Testing equipment, medical reporting, and international communication had improved significantly since 1918 and there were a few key lessons learned:

1. Schools were the most effective incubators of the virus in the US and UK, infecting as many as 90% of the students.
2. The virus didn't spread in the US until school opened in the fall.
3. The virus died out by early December and in late January/early February 1958, it re-emerged in the elderly population.
4. Infection rates were highest among people who attended large indoor gatherings (school, events, etc.)

5. The staph-pneumonia mortality rate was as high as 28% and regularly killed people within 48 hours of being admitted to the hospital because the antibiotics of the time didn't start working fast enough.

The 1968 flu pandemic was a type H3N2 from pigs and was even milder than the 1957 pandemic, killing 1 million worldwide.

The main takeaway from the 1968 flu was that it's thought that one of the reasons it was milder than the 1957 flu is that it didn't reach it's peak until Christmas 1968 when children were home on break, thus limiting the spread in schools.

The 1976 flu (non-pandemic) is an example of what many fear for future flu seasons. A massive vaccination campaign was launched in fear of a pandemic. The result was $1.3 Billion in lawsuits by people who were paralzed by the vaccine, 25 deaths, hundreds of people who were struck with Guillain-Barré Syndrome and no pandemic or even an epidemic happened anywhere in the world.

Modern day factors

It's important to realize that the regular flu kills 1 million people every year and doesn't make the news. In addition, malaria kills 3000 people EVERY DAY and is not considered newsworthy either. Even so, your friends and co-workers probably aren't worried about malaria as much as swine flu, so let's take a look at how it spreads, some bad (popular) ways to fight the flu and some effective ways to prevent and fight the flu.

N.95 masks

I have N.95 masks, both in my house and my vehicles, but they're NOT for the flu. Rather, I have them to protect me from airborne contaminants in the event of a local natural disaster or terrorist attack.

Why don't I like N.95 masks for flu protection? To begin with, the flu virus is relatively weak and is killed quickly by UV (sun) light. People who wear masks normally wear them when they're outdoors, where the virus will be killed quickly by the sun. The time to wear the masks is indoors, but even then it doesn't make sense.

When a person with the flu sneezes, spittle stays airborne for up to 17 minutes indoors, carries the flu virus, and can be absorbed through the eyes. More importantly, 17 minutes gives the spittle a long time to travel.

Some also ends up on flat surfaces, doorknobs, pens, etc. and you pick up the virus when you touch any of those surfaces. Soon enough, you will use the same hands to rub your nose, eyes, or mouth.

One of the biggest reasons not to trust the N.95 masks is that the flu virus is smaller than the particles that N.95 masks are designed to filter.

As icing on the cake, the National Institute of Health doesn't even recommend that people wear them to protect themselves from the flu.

In short, most effective use of N.95 masks to stop the spread of the flu virus is to have people with the flu wear them, just like surgeons do when they operate to protect the people they're operating on.

Tamiflu & Relenza

I have to preface this by saying that the topic of Tamiflu & Relenza is very emotionally charged. I interviewed experts who have dozens of doses of Tamiflu on hand and I interviewed experts who would never touch it. I have attempted to cut through the emotion on the subject and just give you facts that you can take action on.

Tamiflu is an oral antiviral prescription drug and Relenza is an inhaled antiviral designed to kill the flu virus.You can buy them for $50-$200 per dose and they has the big benefit of shortening the average duration of the flu by a day and a half. Considering the fact that secondary infections are the biggest killer associated with the flu, this is POTENTIALLY a big benefit.

Unfortunately, they also have many downsides. To begin with, neither Tamiflu nor Relenza (another anti-viral flu drug) actually attack or kill the flu virus. They ONLY play defense. My geneticist friend described it this way:

Picture a guy in a boat tied to a dock. The dock is one of your cells and the guy in the boat is the flu virus. Once he destroys the dock, he wants to cut the rope and go find another dock to destroy. Tamiflus only job is to keep the guy from cutting the rope. It won't attack the guy (the virus), and once you're done taking Tamiflu, the guy is free to go back to cutting the rope and destroying more docks.

In order for Tamiflu to be effective, you also have to have a healthy immune system that can come in and actually kill the virus. We'll talk about strenthening your immune system in a little bit.

Tamiflu also has side effects that are similar to the flu, including nausea, vomiting, diahrea, headaches, dizzyness, fatigue, seizures, and coughing.

In fact the FDA has issued warnings and Japan banned the use of Tamiflu on children because users between the ages of 10-17 were reporting the additional side effects of delirium, panic attacks, hallucinations, and convulsions.

We're already seeing strains of the flu that are resistant to Tamiflu and as use increases, so will the number of Tamiflu resistant strains.

I mentioned earlier that shortening the duration of the flu had the possible benefit of decreasing secondary infections. Unfortunately, users of Tamiflu report a higher rate of secondary infections than non users.

My family and I will not be taking Tamiflu or Relenza. If you haven't made an educated decision on the subject, I strongly encourage you to research the subject so that you will be confident in your decision and can defend it to people who are on the opposite side of the issue as you, regardless of which side that is.

I'm not anti-drug, anti-big pharma, or anti-doctor. I'm quite thankful for all of them, and in fact, many drugs are simply vitamins or substances taken from nature and repackaged.

That being said, I tend to like treatments with as few side-effects as possible, treatments with as little "Big Brother" record keeping as possible, treatments that are easy to find, treatments that don't require me to sit in a room full of sick people, and treatments that don't require me to pay someone to give me permission to take the treatment.

Proven ways to prevent and fight the flu

As I said earlier, a healthy immune system is key to fighting off the flu and getting over it quickly if you do get it…even if you do take an anti-viral medicine.

Fortunately, there are several cheap, simple ways to strenthen your immune system to keep from getting the flu and fight it if you or a loved one comes down with it.

Amazingly, one of the most effective ways to keep from getting the flu is with vitamin D through sun exposure. For a fair skinned person, 15 minutes of sun exposure without sunscreen will give you 10,000-20,000 IU compared to the RDA of 400 IU! (As an example, you get approximately 100 IU from a glass of milk)

How's this work? Well, vitamin D is converted into the hormone, clcitriol in the kidneys and increases the body's production of antimicrobial peptides. These peptides destroy the cell walls of bacteria, fungi, and viruses, including the influenza virus.

It's important to note that not all vitamin Ds are created equal. Most suppliments are vitamin D2 but the form of vitamin D created by the body when exposed to sun is vitamin D3. Both are converted to their more usable form in the body, but D3 converts 500% faster and binds with proteins more effectively than D2.

The effectiveness of Vitamin D3 in fighting viruses has been studied since the 60s and the link between the winter solstis and the flu was first put forth by R. Edgar Hope-Simpson in 1981. Sunlight (Vitamin D3) is believed to be the main reason why the flu is worst in the fall/winter in stormy years among people who spent the majority of their time indoors.

The connection was made stronger when researchers studied the Inuit. Their diet consists primarily of fish (high in Vitamin D3), and they stay healthy through the winter months, despite less sun exposure.

One of the possible reasons that the 1918 H1N1 flu was so deadly is that it caused cytokine storms, which can be oversimplified as the body's immune system over-reacting and attacking the body and liquifying the organs. Fortunately, Vitamin D3 is a very effective drug for immune response in general and cytokine storm prevention in particular.

TO DO:

Make a point to start spending 10-20 minutes outside every day without sunscreen. While getting 10-20 minutes of sun exposure

every day is the EASIEST thing that you can do to improve your immune system, it's also the easiest thing to forget to do or postpone. One strategy that will help you is to put an "S" on your calendar for the next 30 days. Every day that you get 10-20 minutes of sun exposure, cross through the "S".

IMPORTANT: I want you to realize that this entire course costs less than ONE dose of Tamiflu and you just learned a FREE way to dramatically lower your chances of catching the flu.

In an earlier lesson, I suggested contacting Joe Mercola's clinic in Chicago if you are on any long-term prescription medications. If you haven't yet, please do.

Joe is a licensed physician and surgeon who's focus is primarily on non-prescription solutions to medical issues. We don't always see eye to eye on political and non-medical topics, but Joe has helped me tremendously over the last 4 years with health and wellness.

Joe has not had the flu in over 20 years and has suggested 8 simple, inexpensive ways to dramatically improve your immune system.

1. Vitamin D through daily sun exposure
2. Avoid sugar and processed foods
3. Get enough rest (so you don't need caffiene to function) Getting less than 6 hours of sleep each night increases your chance of contracting illnesses by as much as 300%
4. Control stress (Prayer, meditation, and EFT)
5. Exercise
6. Daily omega 3 from fish, or high quality fish oil or krill oil
7. Wash your hands thoroughly throughout the day
8. Eat garlic often if you're able to

Additional strategies and dietary aids for you to consider for boosting your immune system and helping keep you healthy:

1. **Probiotics** will replenish the good bacteria supply in your gut and help you get more nutrients out of the food you eat. In addition, these

good bacteria will help your body fight off bad bacteria. I'll include a link to the best source I've found on the resource page for this lesson.

2. **Echinacea** boosts the immune system by increasing white blood cell counts.
3. **Astragalus** is an effective herb to take to strengthen your immune system before getting ill, but should not be taken once you're sick.
4. **Stop Smoking.** I won't nag you on this. If you're addicted to nicotine, you're probably already trying to quit.
5. **Limit Caffiene Intake** to one glass of coffee per day. Once you get through the withdrawl, you will have more energy (not less), a lower stress level, and you'll be able to sleep better.
6. **Use a Paper Towel** when leaving bathrooms to open doors after you wash and dry your hands. Many places now have trash cans by the door for this purpose. If not, you can always carry the towel for a few seconds until you can throw it away.
7. **Carry a pen with you** to sign credit/debit card receipts rather than using the common pen at store registers.

I've got the flu. Now what?

Sometimes life throws you curveballs. You have a big project at work, a teething or colicy baby, family or financial issues, an injury, or something else that is outside of your control that affects your sleep and immune system. That's life.

If this happens during flu season and you do get the flu, don't panic! There are tried and tested ways to fight off infections that are cheap and effective.

Keep in mind that this is your life and/or the life of a loved one that you're dealing with. If this year's flu strain is killing people within 2-3 days of becoming symptomatic, I don't know how long I'd wait before trying to go to a doctor, and I'm not going to tell you how long to wait.

In fact, many "public advocacy" groups are working various media channels to try to get the message out that supplements and herbal remedies will not help you and that your only hope is to get to a doctor and buy Tamiflu.

The fact is, if 1/3 of your city is coming down with a killer flu, you may not be able to get an apointment with a doctor or be accepted to an ER, even if you want to. If you do get in, there may not be any prescriptions available.

Simply put, you can buy ALL of the items listed below for under $100. If you get the flu, want to go to the doctor, and are able to, then you haven't lost anything…you still have the items. They've got long shelf lives, and you can always use them in the future.

But, if doctors' offices and ERs aren't taking new patients or there is a breakdown in civil order, you'd better have another option ready to go.

I keep ALL of these items on hand, and my wife, myself, and our toddler use them when we get under the weather. Don't let their simplicity fool you. They are very effective.

- In addition to continuing to get **daily sun exposure**, one of the non-prescription strategies is taking 10 milligrams of **zinc** daily from your multi-vitamin, lozenges, or sprays. If you feel nausious after taking zinc, it's a good sign that you have enough in your system already.

- A simple and effective treatment for respiratory infections (like the flu) in general and pneumonia in particular is the use of high quality **oregano, thyme and rosewood oils**. You can put 5-10 drops of each in a warm bath, 5-10 drops of each in a steaming bowl of water and breathe in the steam, or 5-10 drops in a humidifier.

- A personal treatment that cured a case of drug-resistant pneumonia (contracted in the hospital) that nearly killed me, as well as other minor illnesses through the years is a combination of **Grapefruit Extract, Tea Tree Oil, and Colloidal Gold**. I'll include a link to the best source I've found on the resource page for this lesson.

- One very effective suppliment for upper respiritory infections is **elderberry or sambucol**. It is a natural anti-viral and you can get it in either liquid or tablet form. You can even get Elder-Zinc lozenges that have both elderberry and Zinc.

- Again, **Echinacea** boosts the immune system by increasing white blood cell counts. Simply increase your dosage when you start getting ill.

- **Stop taking antacids!** The incidents of pneumonia is 4X higher among people who take Nexium, Prevacid, Pepcid, and Zantac than the general public. Stress was a considerable part of that equation,

but current users still have an 89% higher chance of contracting pneumonia than former users.

Some of these treatments may be a little “far out” for you. If so, please research the ones that you have the most trouble with. When you do, I think you’ll agree that they’re worth trying. We’ve found that it is very empowering to catch a bug at the same time as a friend, be able to treat it ourselves while they go to a doctor and get a prescription, and feel better before they do.

Again, even if you intend to go directly to a doctor if you get the flu, I encourage you to study these alternatives and have some or all of them on hand. It could be very important, especially if there is a pandemic, people are dying, you get sick, and timely professional medical attention is not an option.

To comment on this lesson, as well as to see resources mentioned, and places where you can buy the supplements, please visit: http://urbansurvivalplan.com/193/lesson5

As promised, next week we’ll cover Chemical and Biological Weapons attacks, as well as some “Ghetto” improvised medical techniques that you can use when supplies are short, but medical attention is necessary.

As part of the lesson, we’ll be covering how to secure your home during a chemical/biological event and strategies to avoid contact if you’re in a situation where you’ve decided to isolate yourself temporarily.

See you in 7 days!

God Bless,

David Morris
Publisher, SurviveInPlace.com

