

Flu Shots, Antibiotics, & Your Immune System

By Dr. Brian Abelson D.C.,RNC.

Introduction

In 1918, North America was ravaged by a flu epidemic that killed more people than all the combined wars of this last century. The pandemic came on rapidly, killing a huge percentage of the population, and then left with little known about its cause⁽¹⁾.

The most disturbing differences about the 1918 pandemic was that the majority of those effected were young, strong and healthy. The elderly (who are normally more susceptible) appeared to be less effected. This suggested that the elderly had been exposed to a genetically similar strain of virus several years before the 1918 occurrence, indicating a pattern of previous occurrences⁽¹⁾.

In fact, during the last century, there have been four major outbreaks of influenza. Researchers today are concerned with an influenza subtype that has the potential to cause worldwide illness on a massive scale.

This concern brings to the surface some very important questions about flu shots, antibiotics, immunity, and the influence that we as Chiropractors have upon our patients. Obviously, we would like to convey the best and most correct information to our patients.

About the Influenza Virus

Two main categories of influenza virus (Influenza A and B), have been detected,. Until now, only Influenza A has been associated with pandemics. The influenza virus is constantly evolving, and the new antigenic variants give rise to yearly epidemics. Influenza viruses are unique among respiratory tract viruses in that they undergo considerable antigenic variation. These mutations make it extremely difficult to develop effective vaccinations⁽²⁾.

This is why so many alternative practitioners believe flu shots to be ineffective. This perspective is, however, very limiting. Whenever scientists find a good match between the vaccine virus and the virus strain that caused the flu, then that influenza vaccine is generally considered to be 70%-90% effective in preventing influenza related illness in healthy adults. Problems occur when it is not possible to create an exact match⁽²⁾.

Unfortunately, there are other problems to consider besides our ability to find the latest version of a viral mutation. The production of a vaccine can take as long as six months. It then takes one to two months to administer it to the population. Due to the mutation rate of the Influenza Type A virus, by the time the vaccine is administered new strains will already have developed. Under normal circumstances, this can be considered a good reason to avoid getting a flu shot. But this logic does not apply if we are dealing with a potential pandemic.

The World Health Organization (WHO) has approximately 110 laboratories worldwide that monitor and tract viral mutation rates, and look for potential pandemics. The WHO looks for "antigenic shifts". When these occur the population is susceptible to major epidemics or pandemics.. Historically, a strong immune system has not been enough to fend off these mutations. Remember approximately 20-40 million healthy adults died in the 1918 influenza pandemic⁽¹⁾.

Many scientists are now predicting that a new pandemic is on its way. As Chiropractors, it important to keep up with current information in order to ensure your patients are getting valid

information. This does not mean that you should tell all your patients to go out and get a flu shot on a yearly basis. But it does mean a flu shot may be warranted in a year where the WHO warns of a possible pandemic. Looking back at the history of my own family during the 1918 pandemic, I had family members who lost all six of their children in less than one week. These were healthy, strong children who died while all the older individuals in the family remained unaffected by the virus.

The upcoming pandemic may not operate in the same way. We cannot say what age groups will be most effected, or determine who has developed immunities due to exposure to related viruses. I know that many of my colleagues will criticize me for recommending flu shots under certain circumstances, but it is important to consider the data.

Many syndromes (neurological, gastrointestinal, and immunological) have been connected to the use of the influenza vaccine. But, it should also be noted that vaccines produced from the 1940s to the mid-1960s were not as highly purified as modern influenza vaccines, and it was these impurities that caused most of the side effects(4).

One must also consider the efficiency of flu shots under non-pandemic situations. Flu vaccine are often less effective for the elderly and those suffering from certain chronic medical conditions. But the vaccine does act to reduce overall mortality rates. Studies have shown that the flu vaccine reduces hospitalization by about 70% and death by almost 85% among the elderly who are not in nursing homes(4). A review of the literature shows that flu shots are not effective at preventing the flu, but may reduce mortality rates.

Despite this, I do not recommend yearly flu shots for the general population. Yearly shots do remain an effective tool for the elderly or the immune compromised. In addition, it is critical that we do everything possible to support our patients immune system through regular adjustments, diet, nutrition and exercise.

Antibiotic Resistant Bacteria

Many of the deaths caused by the 1918 influenza pandemic were caused by secondary bacterial infections. Pharmaceutical companies would like us to believe that we are now protected by new super antibiotics. This may be far from the truth.

Penicillin destroys bacteria by entering the bacterium and binding to proteins on the bacterial cell wall. This leads to inhibition of cell-wall synthesis and the eventual death of the bacteria. Resistance develops when the bacteria modifies the proteins in its cell wall so that penicillin can no longer bind effectively to the bacteria cell wall (5). Many bacteria have developed ingenious mechanisms for resisting antibiotics by altering the outer proteins of their cell surfaces so that the antibiotics cannot enter the cell.

A common misconception among the medical community is that if a patient develops a resistant infection, there are plenty of other antibiotics that can be used for treatment. Due to the rapid development of antibiotic resistant bacteria, this is no longer true. Take the example of *Streptococcus Pneumonia*. This bacteria has become the major bacterial pathogen causing otitis media, pneumonia, and other serious infections in children. In many cases this bacteria is resistant to common antibiotics such as penicillin.

The medical community is also seeing resistance to antibiotics commonly used to treat *Shigella* and *Salmonella* infections. This pattern of resistance is now being reported from numerous countries around the world. Other gram-negative organisms such as *Pseudomonas*, *E. Coli*, *Enterobacter*, *Klebsiella*, and *Serratia* (commonly picked up in hospitals) have developed resistance to many antibiotics(6).

The 1995 study of 1,527 pneumococcal respiratory patients taken from 30 medical centers across the United States supports this data. These researchers found that 23.6% of patients had some degree of resistance to penicillin. One in three patients have such a high degree of penicillin as to render it useless(6).

So when it comes to the secondary infections caused by an influenza pandemic, don't depend on antibiotics to save us. Our best bet is a strong immune system.

Supporting the Immune System

One of the most interesting things about flu shots is that they work best with a highly functional immune system. As Chiropractors we must support and educate our patients about the best methods for supporting their immune systems.

Chiropractic

I will take for granted that all of you are passing on the benefits of Chiropractic adjustments upon the immune system to your patients by "*Telling them how the immune system may be able to communicate with the nervous system using neuromodulators and neurohormones secreted by lymphocytes. Also how the sympathetic innervation of lymphoid tissues directly supplies lymphocytes and blood precursor cells. Furthermore, how spinal manipulation corrects the spinal fixations that adversely affect these somatosympathetic reflexes and decrease immune function.*" (7).

Actually I am being quite facetious. I very seldom hear about how Chiropractors are communicating how manipulation can benefit the immune system. In my opinion, we need to start telling our patients more about the benefits of manipulation upon the immune system, rather than simply emphasizing musculoskeletal benefits.

Antibiotics - Let your opinions be known

Make a stand with your patients about the use of antibiotics. Yes, antibiotics used at the right time can save lives, but used inappropriately they also can do a lot of harm. We need to educate our patients about the benefits of letting their own immune system fight off infections. Most patients have never realized that every time they fight off an infection, their immune system gets stronger. It is also important for them to realize that overuse of antibiotics can render the antibiotic ineffective in a true life threatening infection.

In all cases, patients should always ask their physician for a swab test, and should always avoid broad-spectrum antibiotics. Finally, with any antibiotic treatment make sure your patient replaces the normal flora that the antibiotics have destroyed. Otherwise they remain susceptible to new infections and will set themselves up for everything from food allergies to hormonal imbalances.

By saying nothing about drugs, you support their use

Numerous prescription and over-the-counter drugs suppress immune activity. For example corticosteroids, (including the topical steroids), suppress immune function. These drugs may be necessary in the treatment of acute life threatening cases. But, these medications are incredibly toxic, suppress white blood cell activity, suppress lymph node activity, and inhibit the thymus gland.

Speak up! We cannot adjust a child to improve his immune system, then say nothing when his parent uses a steroid cream to treat a diaper rash. Try the many natural alternatives first.

Diet is essential

Diet is one of the fundamental prerequisites to a healthy immune system. Ensure your patients eat the right foods and make them conscious about the quality of food that they are consuming. Patients consume antibiotics and steroids on a daily basis whenever they eat non-organic meat and dairy products. Both these substances act to weaken the immune system. Encourage the use of organic foods.

Dairy products can cause a wide range of problems that affect the immune system. Dairy consumption has been associated with malabsorption of nutrients, irritable bowel syndrome, and leaky gut related pathologies(8). Problems usually start within the small intestines as an interference in the intestine's ability to absorb nutrition.

Patients should also avoid all hydrogenated oils and polyunsaturated vegetable oils. These "bad" oils result in the production of free radicals which directly impact the immune system. Other dietary items to avoid include excessive amounts of refined sugar, iron, and animal protein.

Support the Immune System

The following is a list of some of the common supplements that I recommend to my patients for supporting their immune function. For a more complete listing, please refer to our website, www.drabelson.com and see the "Health Choices>Nutrition and Your Health" link.

Acidophilus & Bifidobacteria	Acidophilus and Bifidobacteria work together to maintain a healthy balance of intestinal flora. They increase the acidity of the intestine and inhibit the reproduction of harmful bacteria by producing lactic acid, hydrogen peroxide, and acetic acid. These bacteria also produce substances called bacteriocins, natural antibiotics that kill undesirable microorganisms. I recommend 1/3 teaspoon three times a day for a period of one month.(9)
Astragalus	Traditional Chinese medicine uses this herb for night sweats, deficiency of chi (Indicated by fatigue, weakness, and loss of appetite), and diarrhea. Studies have shown that Astragalus appears to restore T-cell counts to relatively normal ranges, even in cancer patients(10).
Echinacea	Echinacea increases the production and activity of lymphocytes and macrophages. It also increases the production of interferon. In capsule form, I recommend about 900 mg per day in three divided doses. In liquid extracts take 3-4 ml, three times per day(11).
Garlic	Garlic has antiviral, antibacterial, and antifungal activity. Candida Albicans growth is inhibited by garlic. If patients can stand it, they should take a clove of raw garlic per day. Alternatively I recommend enteric-coated tablets with standardized allicin potential at 400-500 mg twice per day(11).
Vitamin A	Vitamin A helps to stop bacteria and other microorganisms from penetrating skin and mucous membranes. Males and postmenopausal women, can take up to 25,000 IU of Vitamin A per day. Pregnant women should take no more than 10,000 IU per day, (slightly less is recommended)(11).
Vitamin C	Vitamin C elevates interferon levels, which explains its anti-viral power. With the onset of a cold, I recommend therapeutic doses (1 to 8 grams per day), dependant on bowel tolerance. These levels have been shown to reduce the duration of cold by as much as 48%. For regular immune support, I recommend 3 grams of Vitamin C daily for adults, and 1 gram for children(11).
Zinc	Zinc supplements have been shown to increase immune function. I suggest 25 mg per day for adults and about 15mg per day for children. Take the supplement with food to avoid nausea. Zinc has also been shown to reduce the duration of flu and cold symptoms from 7.6 to 4.4 days. Many of the expensive antiviral drugs claim to achieve the same effect. But the zinc supports the immune system without depressing immune function(11).

Conclusion

You may agree or disagree with my conclusions, but I believe that as professionals, we must stay informed with current information. If a influenza pandemic does occur, and the correct vaccination sequence is available, it can save millions of lives. Consider this before making a decision on the subject with your patients. As for the common cold and flu, a strong immune system is still the best bet. If you have access to the internet, please check the following links for more information about this subject.

- National Flu Surveillance Network: The Early Influenza Warning Network
<http://63.68.50.160/>
- THE FLU HUNTERS
<http://www.pathfinder.com/time/magazine/1998/dom/980223/cover1.html>
- In Search of an Enigma: The "Spanish Lady"
<http://www.nimr.mrc.ac.uk/mhe98/influenza1918.htm>
- Influenza Surveillance
<http://www.who.int/emc/diseases/flu/>

All the best in health

Dr. Brian Abelson D.C., RNC.

www.drabelson.com

References

1. America's Forgotten Pandemic : The Influenza of 1918. Alfred W. Crosby.
2. CDC. Prevention and Control of Influenza. MMWR, 44:No. RR 3:1-22, 1995
3. Couch RB: Influenza: its control in persons and populations. J Infect Dis 153:431, 1986
4. Centers for Disease Control and Prevention
(Internet - <http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>)
5. Appelbaum PC: Antimicrobial resistance in Streptococcus pneumoniae: An overview. Clin Infect Dis. 1992;15:77-83.
6. Kaplan SL, Mason Jr EO, Barson WJ, et al.: Three-year multicenter surveillance of systemic pneumococcal infections in children. Pediatrics 1998;102:538-545.
7. Fidelibus JC. An overview of neuroimmunomodulation and a possible correlation with musculoskeletal system function. J Manipulative Physiol Ther 1989 Aug;12(4):289-292
8. Allergy and Cot Death: With Special Focus on Allergic Sensitivity to Cow's Milk Anaphylaxis," Clin & Exp. Allergy, 20:359, 1990.
9. Health World - internet <http://www.healthy.net/hwlibrarybooks/haas/microorgs.htm>
10. David L. Hoffman, M.N.I.M.H.
<http://www.healthy.net/hwlibrarybooks/hoffman/materiamedica/astragalus.htm>
11. Health World - <http://www.healthy.net/>

Dr. Brian Abelson is Edgemont Chiropractic's clinical director. Dr. Abelson is a native Calgarian who graduated from Palmer College of Chiropractic West in 1992 with an award for clinical excellence. Dr. Abelson regularly teaches courses in nutrition and alternative and complementary medicine for the Calgary Board of Education, various health organizations, and to other health care practitioners. Dr. Abelson is the host of the award winning, popular web site "Ask Dr. Abelson" at www.drabelson.com.

Author: Dr. Brian Abelson
Editor: Kamali Abelson, Rowan Tree Consulting Ltd.
Edgemont Chiropractic Clinic
Bay #10, 34 Edgedale Drive N.W.
Calgary, Alberta, T3A-2R4
For more information, please call our clinic or send an E-mail to the following address.

Phone: 403-241-3772
Internet: abelsonb@home.com

Web Site www.drabelson.com