

The Flu Vaccine is Bad Medicine

By Jim Meehan, MD

- Independent and unbiased science against the flu vaccine: why it is ineffective, unnecessary, and bad medicine
- Why Tamiflu is really bad medicine
- Natural Solutions for Preventing Influenza

Forward by Jim Meehan, MD

As a physician and former editor of the medical journal, *Ocular Immunology and Inflammation*, I know something about immunology, inflammation, and vaccines. For more than 15 years I've researched and analyzed the science and pseudoscience underlying the U.S. vaccine program. What I've found is that the science is irresponsibly poor. In fact, it appears to be intentionally contrived to deceive the public with vaccine industry funded weak and biased observational studies.

However, because the vaccine industry stakeholders are more powerful and wealthier than any other industry in the history of the world, they have been extremely successful at using deceptive marketing to promote inadequately tested, ineffective, and unsafe vaccines.

I also know the difference between real, honest, independent, transparent science, and the fake, dishonest, financially biased/bought-and-paid-for pseudoscience being pumped into medical journals by the pharmaceutical industry and their physician co-conspirators. Nowhere is the scientific fraud and betrayal of public trust more manifest than in the promotion of untested and unsafe vaccines like the flu vaccine.

Unlike many of my vaccine-administering-and-profiting-physician colleagues, I have no financial interests, biases, or delusions regarding vaccinations. Therefore, I have no motivation to misrepresent the facts, ignore or deny the risks, fail to fulfill the legal and ethical requirement of informed consent, fear-monger and bully patients into receiving a medical intervention from which I personally profit. Furthermore, unlike my indoctrinated colleagues that have never read beyond the sales brochures that accompany the delicious free lunches delivered by their charming and attractive pharmaceutical representatives, I don't arrive at my conclusions and base my medical recommendations on industry sponsored pseudoscience. I actually work hard to find and analyze high-quality independent science. After having spent years analyzing the science of the flu vaccine, the only conclusion that I or any reasonable, open minded, free-thinking physician can come to is that the flu vaccine is bad medicine.

Unfortunately, the public is being heavily marketed poor science and egregious lies carefully contrived to mislead the public into believing that the flu vaccine is “the best defense against the flu,” is good medicine, and that this drivel is based on solid science. However, systematic reviews, like that from the Cochrane Collaboration ([here](#) and below), say that the flu vaccine scientific research is heavily influenced by industry. Yet, despite the best efforts of industry to mislead us into believing otherwise, the **Cochrane meta-analysis of 90 plus research studies conclude that the flu vaccine is neither effective nor recommended.** I agree with the Cochrane Collaboratives expert and unbiased conclusions. To the Cochrane conclusion, I add my own opinion: the flu vaccine is really bad medicine.

At best, the flu vaccine has been less than 50% effective, most years less than 20% effective against influenza A and B, which represent about 10% of the circulating viruses responsible for causing cold and flu like symptoms.

The bottom line is that the flu vaccine is neither good medicine nor good science. It is, however, big money, and that is the primary driver behind the annual drive to increase uptake of the bad medicine we call the “flu shot.”

Cochrane Collaboration: Flu Vaccines of No Benefit

<http://ahrp.org/cochrane-collaboration-flu-vaccines-of-no-benefit/>

This is the season that many Americans are advised-even pressured-to get flu shots. Indeed, flu shots are being hawked at every drug store chain. But what does the evidence show about the effectiveness of the flu vaccine when vaccinated and unvaccinated groups are compared?

In **2014**, the Cochrane Collaboration reviewed 90 studies and concluded that the preventive effect of the flu influenza vaccine on healthy adults is small: at least 71 people would need vaccination to prevent one case of influenza (95% CI 64 to 80). They also found that vaccination shows no appreciable effect on working days lost or hospitalization.

The highly credible Cochrane Collaboration should discourage healthy people from getting the flu shot:

“The results of this review seem to discourage the utilisation of vaccination against influenza in healthy adults as a routine public health measure.

As healthy adults have a low risk of complications due to respiratory disease, the use of the vaccine may be only advised as an individual protection measure against symptoms in specific cases.”

- **Specifically, the EVIDENCE REFUTES the claims that the flu vaccine prevents the flu;**
- **the EVIDENCE REFUTES the claim that it prevents viral transmission in healthy adults;**

- **and the EVIDENCE REFUTES the claim that the vaccine prevents complications and “saves lives.”**

- **The EVIDENCE shows little or no benefit for influenza vaccinations.**

“This review includes 15 out of 36 trials funded by industry (four had no funding declaration). An earlier systematic review of 274 influenza vaccine studies published up to 2007 found industry funded studies were published in more prestigious journals and cited more than other studies independently from methodological quality and size. Studies funded from public sources were significantly less likely to report conclusions favorable to the vaccines. The review showed that reliable evidence on influenza vaccines is thin but there is evidence of widespread manipulation of conclusions and spurious notoriety of the studies. The content and conclusions of this review should be interpreted in light of this finding.”

Repeat:

“...industry funded studies were published in more prestigious journals and cited more than other studies...”

“...reliable evidence on influenza vaccines is thin...”

“...there is evidence of widespread manipulation of conclusions...”

“... the content and conclusions of this review should be interpreted in light of this finding.”

So, it would be prudent to be highly skeptical about the pronouncements and recommendations of public health officials about the value or necessity of various vaccines.

But wait! There’s more:

15 Reasons Why the Flu Vaccine is Bad Medicine:

The following list is based on data collected during the 2015-2016 flu season

1. A January **2017** study determined that previous studies alleging patient benefits from influenza vaccination of workers were “**found to violate basic mathematical principles,**” that the four studies “underpinning policies of enforced HCW influenza vaccination attribute implausibly large reductions in patient risk to HCW vaccination, casting serious doubts on their validity,” and that “current scientific data are inadequate to support . . . enforced HCW influenza vaccination.” The authors did say that the prior studies “do not refute approaches to support voluntary vaccination or . . . staying home or masking when acutely ill.”[1]
2. The December 11, **2015** Morbidity and Mortality Weekly Report (MMWR) reports that **only 1.2% of 102,675 respiratory specimens from Oct 4 to Nov 28 tested positive for influenza viruses.**[2] Cumulative data to date (April 2, 2016) shows a range around the country from 15.1% - 22%.[3]
3. Of the \$282 million that The National Vaccine Injury Compensation Program

(NVICP) paid out in FY **2017** for vaccine injuries and death, roughly \$188 million was for influenza vaccine injuries and deaths. **Influenza vaccines make up about 42% of administered vaccines, but 57% of compensated vaccine petitions (2006 - 2016).**[4]

4. A **2015** study found that influenza vaccines in Canada had a **MINUS 8% effectiveness** rate (that's negative eight percent) and recommended "adjunct protective measures . . . to minimize morbidity and mortality." [5]
5. A Cochrane Summary published March 13, **2014** found that influenza vaccination shows no appreciable effect on working days lost or hospitalization." [6]
6. Another recent study showed that the rate of non-influenza respiratory illness in influenza-vaccinated children was 4.4 times that of non-vaccinated children. [7]
7. A 2014 study found that the trivalent influenza vaccine "was not observed to ameliorate symptoms or viral shedding among vaccine failures (infections occurring among vaccinated persons) compared with infected placebo recipients." [8]
8. Another 2014 influenza vaccine study, "Systematic Review of Mandatory Influenza Vaccination in Healthcare Personnel" in the American Journal of Preventive Medicine, concluded that "evidence on clinical outcomes is lacking." [9]
9. In 2013, the Center for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota reported on studies showing that the influenza vaccine provided "little or no protection" in 2010-11, and that getting a flu shot 2 years in a row may actually lower protection. [10]
10. A **2013 BMJ** article documented that **public health authorities' aggressive promotion of the influenza vaccine is not supported by the medical literature and fails to acknowledge serious vaccine risks, e.g., contrary to wildly mistaken claims, only 16% of tested respiratory specimens are positive for influenza, and serious vaccine adverse events are well documented internationally.** [11]
11. In November of 2012, a critical review in The International Journal of Family Medicine concluded: "The arguments for uniform healthcare worker influenza vaccination are not supported by existing literature. The decision whether to get vaccinated should, except possibly in extreme situations, be that of the individual healthcare worker, without legal, institutional, or peer coercion." [12]
12. In a September 2011 Position Statement, the Occupational Safety and Health Administration (OSHA) stated that it "believes there is insufficient scientific evidence for the federal government to promote mandatory influenza vaccination programs that do not have an option for the HCP [healthcare professionals] to decline for medical, religious and/or personal philosophical reasons." [13]
13. A recent Lancet study revealed that flu vaccines are 60% effective. However, the 60% figure was the "relative" risk reduction (rounded up); the "actual" risk reduction was a trivial 1.5%. [14] Accordingly, flu vaccines are of questionable benefit.
14. The AMA and the CDC endorsed non-mandatory flu vaccine policies during the 2009-2010 swine flu pandemic. [15] Clearly, these agencies contemplated at least some non-vaccinated employees, even during a declared pandemic.

15. A 2010 review of the flu vaccine literature by the Cochrane Collaboration, an independent, international consortium of medical researchers, issued a WARNING stating that “reliable evidence on influenza vaccines is thin but there is evidence of widespread manipulation of conclusions...” The review also found that “vaccine use did not affect . . . working days lost” and “had no effect on hospital admissions or complication rates.”[16]

References:

1. Influenza Vaccination of Healthcare Workers: a Critical Analysis of the Evidence for Patient Benefit Underpinning Policies of Enforcement, PLOS, January 27, 2017, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0163586>
2. Morbidity and Mortality Weekly Report (MMWR), 64(48);1342-8, “Update: Influenza Activity – United States, October 4–November 28, 2015,” December 11, 2015 https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6448a4.htm?s_cid=mm6448a4_w
3. Weekly U.S. Influenza Surveillance Report, CDC, December 11, 2015. <https://www.jstor.org/stable/e24805824>
4. National Vaccine Injury Compensation Program, Data & Statistics, <https://www.hrsa.gov/sites/default/files/hrsa/vaccine-compensation/data/data-statistics-september-2019.pdf>. Note: This data is updated monthly.
5. Interim Estimates of 2014/2015 Vaccine Effectiveness Against Influenza A(H3N2) From Canada’s Sentinel Physician Surveillance Network, January 2015, Eurosurveillance, Volume 20, Issue 4, 29 January 2015, <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES2015.20.4.21022>
6. Demicheli V, Jefferson T, Al-Ansary LA, Ferroni E, Rivetti A, Di Pietrantonj C. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2014, Issue 3. Art. No.: CD001269. DOI: 10.1002/14651858.CD001269.pub5 - See more at: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001269.pub5/abstract>
7. Increased risk of noninfluenza respiratory virus infections associated with receipt of inactivated influenza vaccine, *Clin Infect Dis*, Jun;54(12): 1778-83. Doi: 10.1092/cd/dis307. Epub 2012 Mar 15, <https://www.ncbi.nlm.nih.gov/pubmed/22423139>.
8. Characteristics of vaccine failures in a randomized placebo-controlled trial of inactivated influenza vaccine in children. *Pediatr Infect Dis J*. 2014 Feb;33(2):e63-6. doi: 10.1097/INF, <https://www.ncbi.nlm.nih.gov/pubmed/24061274>.
9. A Systematic Review of Mandatory Influenza Vaccination in Healthcare Personnel. <https://www.ajpmonline.org/article/S0749-3797%2814%2900255-4/abstract>.
10. Study: Getting flu shot 2 years in a row may lower protection, CIDRAP, March 1, 2013, <http://www.cidrap.umn.edu/news-perspective/2013/03/study-getting-flu-shot-2-years-row-may-lower-protection>.
11. Influenza: marketing vaccine by marketing disease, *BMJ* 2013;346:f3037, http://www.beyondconformity.org.nz/literature_120194/Influenza_Doshi_13.
12. What, in Fact, Is the Evidence That Vaccinating Healthcare Workers against

- Seasonal Influenza Protects Their Patients? A Critical Review, Int J Family Med. 2012; 2012: 205464, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502850/>.
13. National Vaccine Advisory Committee Meeting Minutes, September 13-14, 2011, APPENDIX B: OSHA Position Statement, as submitted by Mr. Borwegen, representative of the Service Employees International Union, <https://www.nvic.org/CMSPages/GetFile.aspx?nodeguid=da4b451c-b83e-4eb4-9b64-5c210aad1ec3>.
 14. Flu Shots, Fosamax and Pharmaceutical Fakery: The Common Use of Misleading Statistics in the Medical Literature, Gary G. Kohls, M.D., Dec. 3, 2011, <http://www.thepeoplesvoice.org/TPV3/Voices.php/2011/12/03/flu-shots-fosamax-and-pharmaceutical-fak>
 15. AMA meeting: No flu shot mandate for doctors; hand sanitizer pushed, <https://pdfslide.net/documents/proposed-employee-influenza-vaccine-employee-influenza-vaccine-protection-act.html>. Note: Original no longer available at AMA website.
 16. Vaccines for preventing influenza in healthy adults. https://www.cochrane.org/CD001269/ARI_vaccines-prevent-influenza-healthy-adults

Despite a Complete Absence of Safety Testing, the CDC Recommends Flu Vaccine to Pregnant Women

The mainstream media is doing their best to minimize this devastating study showing a high correlation (7.7-fold) between flu vaccines and miscarriages:

Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1 pdm09 in 2010-11 and 2011-12

In a nutshell, what the authors found is that women who had received an H1N1 flu shot in the 2010-11 season and who then received a normal flu vaccine in the 2011-12 season were dramatically more likely to have a spontaneous abortion. How much more likely? Here's what the study says:

Among women who received pH1N1-containing vaccine in the previous influenza season, the aOR in the 1-28 days was 7.7 (95% CI 2.2-27.3); the aOR was 1.3 (95% CI 0.7-2.7) among women not vaccinated in the previous season.

Read the package inserts. Flu vaccines have never been tested on pregnant women. However, post-marketing surveillance is clearly showing that the flu vaccine is dangerous to a developing fetus. How the CDC and doctors can justify recommending the flu vaccine to pregnant women defies my understanding.

Flu Vaccines are a multibillion dollar industry

About 46% of Americans get the flu shot annually. That's about 146 million people. Medicare pays \$25 on average for each flu shot. (*The actual price paid out by Medicare and insurers varies from \$5 to more than \$50, sometimes as much as \$100.*) Let's just

use the \$25 as a national average for all insurers. At that rate, the annual flu shot is a \$3.8 billion industry. Perhaps that is why it is now so broadly prescribed despite its effectiveness for a very specific and narrow group of people. Another interesting fact, the average cost to produce each flu shot is about \$10. The average co-pay/out of pocket cost for most people for the flu shot is about \$10. So, that insurance money seems to be mostly profit.

The facts are, the risk to benefit ratio makes it very bad medicine. Many years it's completely ineffective, like it was in 2015. The WHO and CDC completely missed their predictions of the 4 (out of hundreds) of viruses they thought would be circulating and causing illness in America. In 2015, they struck out and every dose given to our children was of NO BENEFIT and therefore, ALL RISK.

Much the same thing happened in 2016. In fact, if you live in Oklahoma you may recall the story of McCloud Public School in McCloud, OK. The school was heavily vaccinated after a free flu vaccination program hit the school. Nevertheless, one teacher died and many other teachers and students came down with the flu. Despite their flu vaccinations, the school had to cancel classes for almost two weeks.

As far as flu vaccine effectiveness goes, please, don't take my word for it. Do your own research. Here's my evidence: http://www.cochrane.org/CD001269/ARI_vaccines-to-prevent-influenza-in-healthy-adults

Flu Vaccine for All: A Critical Look at the Evidence

Eric A. Biondi, MD, MS

Assistant Professor of Pediatrics, Pediatric Hospitalist, University of Rochester Medical Center, Rochester, New York

December 21, 2015

http://www.medscape.com/viewarticle/855937_2

Another critical analysis and indictment of the lack of evidence supporting the recommendation for the flu vaccine for everyone.

“The bottom line is this, the flu vaccine is an ineffective and potentially injurious medical intervention that lacks evidence for its universal recommendation. It’s promotion is based on money, not health. There are hidden financial conflicts of interest everywhere in this discussion. I have no such conflicts of interest. I have no financial interest. I care about health, science, and the integrity of the medical profession. I cannot recommend the flu vaccine for anyone.

Question: Does the evidence support the call for universal influenza vaccination?

Influenza vaccination is a yearly ritual. The Advisory Committee on Immunization Practices (ACIP)^[1] and the American Academy of Pediatrics (AAP)^[2] recommend annual influenza vaccination for all healthy persons 6 months of age or older who are without

contraindications.

In a 2015 interview published in The Atlantic,^[3] Tom Jefferson, head of the Vaccine Field Group at the Cochrane Database Collaboration (the world's leading producer of evidence-based medical reviews), voiced serious reservations about the data supporting influenza vaccine recommendations, stating that "The vast majority of the studies [are] deeply flawed. Rubbish is not a scientific term, but I think it's the term that applies."

A critical look at the evidence raises further questions about the flu shot recommendations.

A 2012 Cochrane review^[4] examining the efficacy of pediatric influenza vaccination noted that:

...industry-funded studies were published in more prestigious journals and cited more than other studies, independent of methodological quality and size. Studies funded from public sources were significantly less likely to report conclusions favorable to [influenza] vaccines... reliable evidence on influenza vaccines is thin but there is evidence of widespread manipulation of conclusions and spurious notoriety of the studies.

And a 2014 Cochrane review^[5] examining use of flu vaccine in healthy adults, including pregnant women, concluded that:

[Influenza] vaccination shows no appreciable effect on working days lost or hospitalization.

How Did We Get Here? The History of Influenza Vaccines

If the data supporting widespread influenza vaccination are weak, then why do such organizations as the AAP, ACIP, and the US Centers for Disease Control and Prevention (CDC) support a widespread influenza vaccination policy? As is so often the case, to understand the present, we must examine the past.

The 1918-1919 influenza pandemic, which occurred concurrently with World War I, killed approximately 50 million people around the world.^[6] Despite little understanding of the etiology of the pandemic, physicians began administering various vaccines to soldiers in an attempt to stop the spread of the disease.

During World War II, the US Army, eager to prevent a recurrence of 1918, supported influenza vaccine development efforts by such scientists as Jonas Salk.^[7] This early flu vaccine was studied in the military in 1944 and found to decrease episodes of illness with a temperature above 99°F^[8]—a promising result, but not evidence of an impact on serious clinical outcomes. A subsequent evaluation in 1947 found that "the incidence of disease was no different in vaccinated and unvaccinated individuals."^[9]

In other words, by the late 1940s a vaccine for influenza had been developed, but there was no evidence that it prevented serious outcomes. Nevertheless, the vaccine was

released for use in the general population.

Then, in 1957, a new pandemic struck. The "Asian flu," although not as severe as the 1918 pandemic, would eventually cause 1-2 million deaths worldwide.^[10] A vaccine was manufactured, and millions of doses were administered in the United States in response.^[11] The vaccine had no appreciable effect on the trend of the pandemic.^[12]

When Vaccination Became Routine

Vaccine proponents felt that the failure of the vaccine was explained by the immunization campaign being too little, too late. As a result, in 1960, national health experts recommended, for the first time, routine annual vaccination, with emphasis on high-risk groups, including those over the age of 65 years and individuals with chronic illness.^[13] By the early 1960s, routine influenza vaccination was generally adopted as a policy, with very little supporting evidence.

After several years of this policy, the CDC decided to evaluate its impact. In 1964, [Alexander Langmuir, MD, MPH](#), then the chief epidemiologist at the CDC, published a paper^[13] that "reluctantly concluded that there is little progress to be reported. The severity of the epidemic of 1962-1963...demonstrates the failure to achieve effective control of excess mortality." The paper questioned whether widespread influenza immunization "should be continued without better evidence to justify the major costs to the general public." Despite this, annual vaccination campaigns were continued.

In 1968, the CDC finally performed a randomized, double-blind trial^[14] to examine the effect of vaccination on morbidity and mortality. The authors concluded that "Despite extensive use of influenza vaccines...attainment of [improved morbidity and mortality] has never been demonstrated." Nevertheless, flu immunization continued.

In 1976, H1N1 "swine flu" appeared, and a large-scale effort to immunize as many Americans as possible was launched.^[15] However, the anticipated levels of disease did not appear, and an epidemic of paralytic Guillain-Barré syndrome in recipients of vaccine led to the program's cancellation. An analysis in 1977^[16] by the CDC concluded that influenza control had been "generally ineffective" and that statistically valid community trials were needed.

In 1995, a major review from the US Food and Drug Administration acknowledged the ongoing "paucity of randomized trials" and warned about serious methodological flaws in many existing flu vaccine studies.^[17]

In 2000, the CDC performed a placebo-controlled trial and found that "vaccination [when compared to placebo] may not provide overall economic benefits in most years."^[18]

Nonetheless, in 2004, the AAP recommended annual influenza immunization for young children, household contacts, and healthcare providers.^[19]

Vaccination coverage recommendations continued to expand, and now during every flu season, we watch commercials by retail pharmacies telling us about the importance of

getting the flu shot. The fact that the AAP recommends "mandatory" flu vaccination for healthcare providers^[20] means that eventually clinicians could be fired for not getting vaccinated.

Summing Up the Data

A 2012 systematic review and meta-analysis^[21] examined the efficacy and effectiveness of licensed influenza vaccines in patients with confirmed influenza illness. The authors confirmed that the original "recommendation to vaccinate the elderly was made without data for vaccine efficacy or effectiveness." The main message was that we need a better vaccine and better studies to demonstrate its effectiveness.

Despite the lack of high-quality data supporting the value of the flu shot, widespread vaccination policy might still be reasonable if observational studies consistently showed a benefit. However, the observational studies cited by flu shot proponents are frequently flawed.^[22,23,24,25,26,27,28] In many studies, relevant clinical outcomes are ignored in favor of immunogenicity (ie, the ability to elicit an antibody response). "Influenza-like illness" (ie, cold symptoms) is frequently measured instead of serious outcomes, such as pneumonia or death. When these more serious outcomes are examined, there is often a failure to control for healthy user bias—the propensity for healthier people to do such things as receive annual check-ups, eat healthier foods, and get the flu shot. So, although it's true that people who get flu shots live longer, it may have nothing to do with actually getting the flu shot.

A 2005 study of a 33-season, national data set attempted to reconcile the reduced all-cause morbidity and mortality found in some observational studies of influenza vaccination with the fact that "national influenza mortality rates among seniors increased in the 1980s and 1990s as the senior vaccination coverage quadrupled."^[29] In this study, the authors conclude that:

"[Our] estimates, which provide the best available national estimates of the fraction of all winter deaths that are specifically attributable to influenza, show that the observational studies must overstate the mortality benefits of the vaccine...[even during two pandemic seasons] the estimated influenza-related mortality was probably very close to what would have occurred had no vaccine been available."

The rationale for flu immunization as a national health priority is that influenza is a disease with serious complications, such as pneumonia, hospitalization, and death.^[5,13,28] If the reason for influenza vaccination is that flu is such a serious disease, then the relevant outcomes are whether vaccination improves morbidity and mortality from the flu. However, after decades of vaccine use, it is hard to detect any public health impact. This is in stark contrast to other routine vaccinations, such as polio and Haemophilus influenzae type b, where the introduction of the vaccine led to obvious decline of the disease.

We are pediatricians, and we believe in childhood immunizations. Many vaccines have provided immense public health value. We simply question whether the policy of routine

influenza vaccination has outpaced the data supporting its use.

Influenza vaccination now supersedes many other priorities of public health (such as obesity, illiteracy, and high school dropout), and we question whether so much time, effort, and money should be dedicated to flu vaccination while these other national healthcare priorities remain on the back burner.”

References

1. Grohskopf LA, Sokolow LZ, Olsen SJ, Bresee JS, Broder KR, Karron RA. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices, United States, 2015-16 influenza season. *MMWR Morb Mortal Wkly Rep.* 2015;64:818-825.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a3.htm> Accessed September 14, 2015.
2. Committee on Infectious Diseases. Recommendations for prevention and control of influenza in children, 2015-2016. *Pediatrics.* 2015;136:792-808.
<http://pediatrics.aappublications.org/content/early/2015/09/01/peds.2015-2920.full.pdf> Accessed September 14, 2015.
3. Brownlee S, Lenzer J. Does the vaccine matter? *The Atlantic.* November 2009.
<http://www.theatlantic.com/doc/200911/brownlee-h1n1> Accessed September 16, 2015.
4. Jefferson T, Rivetti A, Di Pietrantonj C, Demicheli V, Ferroni E. Vaccines for preventing influenza in healthy children. *Cochrane Database Syst Rev.* 2012;8:CD004879.
<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004879.pub4/abstract> Accessed September 14, 2015.
5. Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines to prevent influenza in healthy adults. *Cochrane Database Syst Rev.* 2014;3:CD001269.
<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001269.pub5/abstract;jsessionid=96780A7CC76A9AF58372894444AE3F04.f02t03> Accessed September 14, 2015.
6. National Archives and Record Administration. The deadly virus.
<https://www.archives.gov/exhibits/influenza-epidemic/> Accessed September 14, 2015.
7. Salk Institute for Biological Studies. About Jonas Salk.
http://www.salk.edu/about/jonas_salk.html Accessed September 15, 2015.
8. Members of the Commission on Influenza, Board for the Investigation and Control of influenza and Other Epidemic Diseases in the Army, Preventative Medicine Service, Office of the Surgeon General, United States Army. A clinical evaluation of vaccination against influenza (preliminary report). *JAMA.* 1944;124:982-985.
9. Francis T, Salk J, Quilligan JJ. Experience with vaccination against influenza in the spring of 1947. *Am J Public Health Nations Health.* 1947;37:1017-1022.
10. Influenza pandemics. *The History of Vaccines.*

<http://www.historyofvaccines.org/content/articles/influenza-pandemics> Accessed September 16, 2015.

11. Henderson DA, Courtney B, Inglesby TV, Toner E, Nuzzo JB. Public health and medical responses to the 1957-58 influenza pandemic. *Biosecur Bioterror*. 2009;7:265-273. <http://online.liebertpub.com/doi/pdf/10.1089/bsp.2009.0729> Accessed September 16, 2015.
12. Jensen KE, Dunn FL, Robinson RQ. Influenza, 1957: a variant and the pandemic. *Prog Med Virol*. 1958;1:165-209. [Abstract](#)
13. Langmuir AD, Henderson DA, Serfling RE. The epidemiological basis for the control of influenza. *Am J Public Health Nations Health*. 1964;54:563-571. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1254817/> Accessed September 16, 2015.
14. Schoenbaum SC, Mostow SR, Dowdle WR, Coleman MT, Kaye HS. Studies with inactivated influenza vaccines purified by zonal centrifugation. 2. Efficacy. *Bull World Health Organ*. 1969;41:531-535. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2427700/pdf/bullwho00220-0191.pdf> Accessed September 16, 2015.
15. Sencer DJ, Millar JD. Reflections on the 1976 swine flu vaccination program. *Emerg Infect Dis*. 2006;12:29-33. http://wwwnc.cdc.gov/eid/article/12/1/05-1007_article Accessed September 16, 2015.
16. Dull HB, Bryan JA. Assuring the benefits of immunization in the future: research in the public interest. *Bull World Health Organ*. 1977;55 (Suppl 2):117-125. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2367076/pdf/bullwho00451-0117.pdf> Accessed September 16, 2015.
17. Gross PA, Hermogenes AW, Sacks HS, Lau J, Levandowski RA. The efficacy of influenza vaccine in elderly persons: a meta-analysis and review of the literature. *Ann Intern Med*. 1995;123:518-527. [Abstract](#)
18. Bridges CB, Thompson WW, Meltzer MI, et al. Effectiveness and cost-benefit of influenza vaccination of healthy working adults: a randomized controlled trial. *JAMA*. 2000;284:1655-1663. [Abstract](#)
19. American Academy of Pediatrics Committee on Infectious Diseases. Recommendations for influenza immunization in children. *Pediatrics*. 2004;113:1441-1447. <http://pediatrics.aappublications.org/content/113/5/1441.full> Accessed September 16, 2015.
20. American Academy of Pediatrics Committee on Infectious Diseases. Influenza immunization for all healthcare personnel: keep it mandatory. *Pediatrics*. 2015;136:809-818.
21. Osterholm MT, Kelley NS, Sommer A, Belongia EA. Efficacy and effectiveness of influenza vaccines: a systematic review and meta-analysis. *Lancet Infect Dis*. 2012;12:36-44. [Abstract](#)
22. Nichol KL, Wuorenma J, von Sternberg T. Benefits of influenza vaccination for low-, intermediate-, and high-risk senior citizens. *Arch Intern Med*. 1998;158:1769-1776. [Abstract](#)
23. Mullooly JP, Bennett MD, Hornbrook MC, et al. Influenza vaccination programs

for elderly persons: cost-effectiveness in a health maintenance organization. *Ann Intern Med.* 1994;121:947-952. [Abstract](#)

24. Patriarca PA, Weber JA, Parker RA, et al. Risk factors for outbreaks of influenza in nursing homes. A case-control study. *Am J Epidemiol.* 1986;124:114-119. [Abstract](#)
25. Nordin J, Mullooly J, Poblete S, et al. Influenza vaccine effectiveness in preventing hospitalizations and deaths in persons 65 years or older in Minnesota, New York, and Oregon: data from 3 health plans. *J Infect Dis.* 2001;184:665-670. [Abstract](#)
26. Hak E, Nordin J, Wei F, et al. Influence of high-risk medical conditions on the effectiveness of influenza vaccination among elderly members of 3 large managed-care organizations. *Clin Infect Dis.* 2002;35:370-377. [Abstract](#)
27. Monto AS, Hornbuckle K, Ohmit SE. Influenza vaccine effectiveness among elderly nursing home residents: a cohort study. *Am J Epidemiol.* 2001;154:155-160. [Abstract](#)
28. Patriarca PA, Weber JA, Parker RA, et al. Efficacy of influenza vaccine in nursing homes. Reduction in illness and complications during an influenza A (H3N2) epidemic. *JAMA.* 1985;253:1136-1139. [Abstract](#)
29. Simonsen L, Reichert TA, Viboud C, et al. Impact of influenza vaccination of seasonal mortality in the U.S. elderly population. *Arch Intern Med.* 2005;165:265-272 [Abstract](#)

Studies Show Flu Vaccines are Ineffective and NOT an Ideal Form of Prevention

Here's a sampling of studies demonstrating the ineffectiveness of flu vaccines. Many of these studies also explain that earlier positive results appear to have been due to various types of *bias*, and when the bias is removed, the alleged benefits of vaccinating against the flu disappear. There are many more... For another list of additional studies demolishing the claim that the flu vaccine is an effective prevention strategy, [see this previous article](#):

<p>Functional status is a confounder of the association of influenza vaccine and risk of all cause mortality in seniors. Int J Epidemiol. 2006 Apr;35(2):345-52 According to the authors: "... disability indicators tended to be associated with both a higher risk of death and a decreased likelihood of vaccination. Consequently, adjustment for the functional status indicators moved the estimate of the association of influenza vaccination and risk of death closer to the null..."</p>	<p>Influenza vaccination and risk of community-acquired pneumonia in immunocompetent elderly people: a population-based, nested case-control study. Lancet. 2008 Aug 2;372(9636):398-405. The authors concluded that "... influenza vaccination was not associated with a reduced risk of community-acquired pneumonia during the influenza season"</p>
Evidence of bias in estimates of influenza	Benefits of examining influenza vaccine

<p>vaccine effectiveness in seniors. Int J Epidemiol. 2006 Apr;35(2):337-44 The authors concluded that, "The reductions in risk before influenza season indicate preferential receipt of vaccine by relatively healthy seniors. Adjustment for diagnosis code variables did not control for this bias. In this study, the magnitude of the bias demonstrated by the associations before the influenza season was sufficient to account entirely for the associations observed during influenza season. "</p>	<p>associations outside of influenza season Comment on: <i>Am J Respir Crit Care Med.</i> 2008 Sep 1;178(5):527-33. Am J Respir Crit Care Med. 2008 Sep 1;178(5):439-40. The authors explain how their approach "show that the lower risks of all-cause mortality and pneumonia hospitalization consistently observed in studies comparing vaccinated and unvaccinated community-dwelling seniors during influenza season are largely, or perhaps entirely, due to bias..."</p>
<p>Mortality benefits of influenza vaccination in elderly people: an ongoing controversy. Lancet Infect Dis. 2007 Oct;7(10):658-66 According to the authors: "Recent excess mortality studies were unable to confirm a decline in influenza-related mortality since 1980, even as vaccination coverage increased from 15% to 65%... We conclude that frailty selection bias and use of non-specific endpoints such as all-cause mortality have led cohort studies to greatly exaggerate vaccine benefits. The remaining evidence base is currently insufficient to indicate the magnitude of the mortality benefit, if any, that elderly people derive from the vaccination programme."</p>	<p>Relation of study quality, concordance, take home message, funding, and impact in studies of influenza vaccines: systematic review. BMJ. 2009 Feb 12;338:b354 According to the authors: "Evidence is of poor quality, and studies with conclusions in favor of vaccines are of significantly lower methodological quality. Influenza vaccines studies sponsored by industry are published in journals with higher impact factors and are cited more but are of similar size and quality to the others."</p>

[The Flu Vaccine is the most injurious vaccine compensated by the Vaccine Court System](#)

As for the RISK, the flu vaccine is not only highly INEFFECTIVE, it is also the most injurious vaccine compensated by the Vaccine Court system! Which is where you have to go since the vaccine manufacturers and doctors can't be sued for the injuries vaccines cause. If your child has a serious adverse reaction or dies from the flu vaccine, you are most likely on your own. Due to the ridiculous conflicts of interest, it is extremely rare that any case of vaccine injury gets compensated by the Vaccine Court system. Patients injured by vaccines are essentially being judged by the same people that oversee safety and distribution of vaccines: Health and Human Services (the agency over the CDC).

Here's how the vaccine court system works: <https://www.youtube.com/watch?v=P1PiR4PkCh0>

Thimerosal (mercury) STILL PRESENT in multidose flu vaccine vials

Thimerosal is a preservative that contains mercury. A single .5 mL dose of vaccine from a multi-dose vial contains 25 micrograms of mercury.

According to the U.S. Environmental Protection Agency, a safe dose of mercury is .1 micrograms for every 2.2 pounds of body-weight per day.

Fluad - Marketing focused on 65+. Promotes as “adjuvanted.”

Package Insert: <https://www.fda.gov/downloads/biologicsbloodvaccines/safetyavailability/vaccinesafety/ucm474387.pdf>

Trivalent flu vaccine

No placebo control. Fluad was compared against AGRIFLU.

Contains problematic ingredients:

- **Squalene** - 9.75 mg squalene,
- **Polysorbate 80** - 1.175 mg

Flu Vaccine and Sepsis

The biological mechanism of vaccine-induced sepsis is plausible in this case. Here is why.

1. The flu vaccine is known to suppress CD8+ T cell production:

Annual Vaccination against Influenza Virus Hampers Development of Virus-Specific CD8+ T Cell Immunity in Children

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3209321/>

CTL production is vital to combat intracellular pathogens i.e. exactly what sepsis is.

Learn about CTLs at <https://www.immunology.org/.../bitesize.../cells/cd8-t-cells>

2. This reduced CTL production (i.e. lowered general immunity) can lead to increased infection from other sources. In this study, the treatment cohort experienced 4.4 times more infections than the control group that did not receive vaccinations. Let that sink in for a moment.

Increased Risk of Noninfluenza Respiratory Virus Infections Associated With Receipt of Inactivated Influenza Vaccine

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3404712/>

3. Specifically looking at sepsis, this isn't the first time we have seen sepsis after

immunization. In this study, the vaccinated premature infants experienced sepsis at a greater rate than those who weren't vaccinated:

"This study found an increase in adverse events after the routine immunization of ELBW infants in the NICU, specifically sepsis evaluations, need for increased respiratory support, and intubation."

Adverse Events After Routine Immunization of Extremely Low-Birth-Weight Infants

<https://jamanetwork.com/.../jamapedia.../fullarticle/2300376>

4. I hypothesize that the route of entry was from the puncture of the vaccine needle. This is not just plausible, this recent paper (2016) argues that we should be performing disinfection before every vaccination, something that is not done currently, precisely to stop sepsis!

"Disinfection should be required for all skin penetrative procedures including parenteral administration of vaccines... Like 'clean' surgical site infections, the major pathogens responsible for these events were Staphylococcal species, implicating endogenous contamination as a significant source of infection."

Sepsis, parenteral vaccination and skin disinfection

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5084982/>

5. Not only is the route plausible, here is a death from sepsis after the flu shot that received compensation from the National Vaccine Injury Compensation Program:

No. 12-775V Filed: August 21, 2013

"Damages decision based on stipulation; influenza vaccine; pneumonia; sepsis; systemic inflammatory response; death"

<https://www.mctlawyers.com/.../12-775V-flu-shot-pneumonia...>

What can we conclude from this?

1. A new round of sepsis from the vaccine is a plausible cause of *this* instance of sepsis regardless of any prior history.

2. Even if his sepsis did not start with the vaccination (entry via the vaccine needle puncture, a common route for provocation polio, btw), the damage to his immune system from the vaccine is almost certainly what killed him because he could not fight off the sepsis due to lowered general immunity from the shot.

3. If I were the widow, I would at least apply for compensation from the NVICP. \$250k for her husband's death doesn't bring him back but I would want it on record that the vaccine killed him. Bear in mind that the rules of the NVICP are that the vaccine does not need to be the sole reason for injury, it is sufficient to be contributory. So even if he dealt with sepsis before, if the vaccine prevented him from fending it off this time,

compensation is due.

Natural Solutions for Preventing Influenza and Other Viral Illnesses

- 1. Contact Precautions - stay away from sick people!**
- 2. Frequent Hand-washing - washing hands with soap and warm water is highly effective in destroying and removing viruses and bacteria that may have hitched a ride on your skin.**
- 3. "Hammer" Vitamin D and Vitamin C**

Mounting research suggests vitamin D deficiency may actually be a major cause of influenza. People with the lowest vitamin D levels reported having significantly more colds or cases of the flu.

Scientific review confirms vitamin D optimization boosts immunity and cuts rates of cold and flu. Among people vitamin D blood levels below 10 ng/mL, taking a supplement cut risk of respiratory infection by 50 percent.

To prevent influenza in one person, 40 people must receive the flu vaccine whereas one case of the flu can be prevented for every 33 people taking vitamin D. If you're severely vitamin D deficient, vitamin D supplementation is 10 times more effective than the flu vaccine.

Dr. John Cannell, founder of the Vitamin D Council, was one of the first to introduce the idea that vitamin D deficiency may actually be an underlying CAUSE of influenza.

His hypothesis¹ was initially published in the journal *Epidemiology and Infection* in 2006.² It was subsequently followed up with another study published in the *Virology Journal* in 2008.³

The following year, the largest nationally representative study⁴ of its kind to date discovered that people with the lowest vitamin D levels indeed reported having significantly more colds or cases of the flu. In conclusion, lead author Dr. Adit Ginde stated:

"The findings of our study support an important role for vitamin D in prevention of common respiratory infections, such as colds and the flu. Individuals with common lung diseases, such as asthma or emphysema, may be particularly susceptible to respiratory infections from vitamin D deficiency."

The Vitamin D Hammer for acute Influenza Infection - do this if you think you're coming down with a cold or flu:

In those patients who do have influenza, I recommend the vitamin D hammer This is a 1-time 50,000 IU dose of vitamin D3 or 10,000 IU 3 times daily for 2 to 3 days. The results are dramatic, with complete resolution of symptoms in 48 to 72 hours.

One-time doses of vitamin D at this level have been used safely and have never been shown to be toxic.[8](#)

The Vitamin D Hammer for acute Influenza Infection - do this if you think you're coming down with a cold or flu:

- If you suspect you are coming down with a cold, flu, or viral illness, support your immune system with increased dosing of the important HORMONE, vitamin D. The increased dose of vitamin D is called "The Vitamin D Hammer." <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4463890/#b8-0610507>
- This is a 1-time 50,000 IU dose of vitamin D3 or 10,000 IU 3 times daily for 2 to 3 days.
- The results are often dramatic, with complete resolution of symptoms in 48 to 72 hours.
- One-time doses of vitamin D at this level have been used safely and have never been shown to be toxic.
- The cost of vitamin D is about a penny per 1000 IU, so this treatment costs less than a dollar.

The Vitamin C "Hammer" for the cold or flu

- Seek a high quality vitamin C supplement, preferably a balanced formula based on the acerola fruit. Acerola is rich in vitamin C, and also contains vitamin A, thiamine, riboflavin, and niacin.
- Begin with an initial (loading) dose of 3000 to 4000 mg.
- Then dose 1000 mg every 1-2 hours until you begin to experience bowel symptoms such as mild discomfort, increased flatulence (gas), and loose stools (mild diarrhea). This marks your level of "bowel tolerance" for the vitamin C.
- At the dose you begin to notice symptoms of exceeding your vitamin C "bowel tolerance," back off your dosing slightly. For example, if you've been taking 1000 mg every hour, once you are near your bowel tolerance you would back off to 1000 mg every 2 hours, adjusting up or down as needed to stay just below bowel tolerance.
- Ideally, aim for 1000 mg per hour at least six times per day for 2 to 3 days. Begin as soon as you recognize the initial symptoms. Continue taking vitamin C until you are over your cold and flu.
- Consider continuing the protocol for 1-2 days after you are feeling better to prevent a relapse.
- Alternatively, you can simply take 3000-5000 mg of vitamin C, 3 times daily.

References

<https://www.ncbi.nlm.nih.gov/pubmed/10796569>

<https://www.ncbi.nlm.nih.gov/pubmed/24426232>

4. Other Essentials to Support the Immune System

- **Oregano oil** - Supplement, 3 times daily - oregano contains two powerful compounds of Carvacrol and Thymol that have powerful anti-bacterial and anti-fungal properties. The predominant compound, Carvacrol, is arguably the most important component explaining why Oil of oregano is so potent. The higher the carvacrol concentration, the more effective it is.
- **Zinc** - According to a [Cochrane Database Review of the medical research on zinc](#), when taken within one day of the first symptoms, zinc can cut down the duration of a cold by about 24 hours.
- **Mushrooms** - Beta glucans and proteoglycans are the primary biologically active compounds in the mushroom fruit body and mycelia that support your immune system.
- **Antiviral Tea** made from a combination of elderflower, [yarrow](#), boneset, linden, peppermint and ginger; drink it hot and often for combating a cold or flu. It causes you to sweat, which is helpful for eradicating a virus from your system.
- **Chicken soup** - Chicken contains a natural amino acid called cysteine, which can thin the mucus in your lungs and make it less sticky so you can expel it more easily. Furthermore, a well made chicken soup is loaded with essential nutrients the body needs to not only fight the acute infection, but to support optimal health. Make sure the soup is made with clean, organic, GMO-free ingredients and chicken that isn't "grown" in an industrial chicken farm.
- **Propolis** - A bee resin and one of the most broad-spectrum antimicrobial compounds in the world; [propolis](#) is also the richest source of caffeic acid and apigenin, two very important compounds that aid in immune response.
- **Olive leaf extract** - Ancient Egyptians and Mediterranean cultures used it for a variety of health-promoting uses and it is widely known as a natural, non-toxic immune system builder.
- **Elderberry syrup** -
 - <https://www.ncbi.nlm.nih.gov/pubmed/15080016>
 - <https://www.ncbi.nlm.nih.gov/pubmed/11399518>

More from Mercola

Avoiding influenza and flu-like illness during the flu season or any season doesn't require a flu vaccine. By following the simple guidelines below, you can help keep your immune system in optimal working order so that you're far less likely to get sick or, if you do get sick, you are better prepared to move through it without complications. For more details, follow the hyperlinks provided.

[Optimize your vitamin D levels](#). As I've previously reported, [optimizing your vitamin D levels is one of the absolute best strategies for avoiding infections](#) of ALL kinds, and [vitamin D deficiency is likely the TRUE culprit behind the seasonality of the flu](#) -- not the flu virus itself. This is probably the single most important and least expensive action you

can take. Regularly monitor your vitamin D levels to confirm your levels are within the therapeutic range of 50-70 ng/ml.

Ideally, you'll want to get all your vitamin D from sun exposure or a safe tanning bed, but as a last resort you can take an oral vitamin D3 supplement. According to the latest review by Carole Baggerly (Grassrootshealth.org), adults need about 8,000 IU's a day.

[Avoid Sugar, Fructose and Processed Foods](#). Sugar impairs the function of your immune system almost immediately, and as you likely know, a healthy immune system is one of the most important keys to fighting off viruses and other illness. Be aware that sugar is present in foods you may not suspect, like ketchup and fruit juice.

[Get Enough Rest](#). Just like it becomes harder for you to get your daily tasks done if you're tired, if your body is overly fatigued it will be harder for it to fight the flu. Be sure to check out my article [Guide to a Good Night's Sleep](#) for some great tips to help you get quality rest.

[Have Effective Tools to Address Stress](#). We all face some stress every day, but if stress becomes overwhelming then your body will be less able to fight off the flu and other illness. If you feel that stress is taking a toll on your health, consider using an energy psychology tool such as [the Emotional Freedom Technique](#), which is remarkably effective in relieving stress associated with all kinds of events, from work to family to trauma.

[Exercise](#). When you exercise, you increase your circulation and your blood flow throughout your body. The components of your immune system are also better circulated, which means your immune system has a better chance of finding an illness before it spreads.

[Take a Good Source of Animal-Based Omega-3 Fats](#). Increase your intake of healthy and essential fats like the omega-3 found in krill oil, which is crucial for maintaining health. It is also crucial to avoid excessive and/or oxidized omega-6 fatty acids, as well as trans fatty acids commonly found in processed foods, as they will seriously damage your immune response.

[Wash Your Hands](#). Washing your hands will decrease your likelihood of spreading a virus to your nose, mouth or other people. Be sure you don't use antibacterial soap for this -- antibacterial soaps are completely unnecessary, and they cause far more harm than good. Instead, identify a simple non-toxic soap that you can switch your family to.

Use Natural Antibiotics. Examples include [colloidal silver](#), oil of oregano, and [garlic](#). These work like broad-spectrum antibiotics against bacteria, viruses, and protozoa in your body. And unlike pharmaceutical antibiotics, they do not appear to lead to resistance.

Avoid Hospitals. I'd recommend you stay away from hospitals unless you're having an emergency and need expert medical care, as hospitals are prime breeding grounds for infectious microorganisms of all kinds. The best place to get plenty of rest and recover from illness that is not life-threatening is usually in the comfort of your own home.

Taken together, these strategies lay the groundwork for a robust immune system that can stand up to all kinds of viral and bacterial assaults. However, there are also a number of all-natural therapies that can help you combat colds and flu's on a more short-term basis.

<p>Zinc—According to a Cochrane Database Review of the medical research on zinc, when taken within one day of the first symptoms, zinc can cut down the duration of a cold by about 24 hours</p>	<p>Mushrooms—Beta glucans and proteoglycans are the primary biologically active compounds in the mushroom fruit body and mycelia that support your immune system</p>	<p>Oregano Oil: The higher the carvacrol concentration, the more effective it is. Carvacrol is the most active antimicrobial agent in oregano oil</p>	<p>A tea made from a combination of elderflower, yarrow, boneset, linden, peppermint and ginger; drink it hot and often for combating a cold or flu. It causes you to sweat, which is helpful for eradicating a virus from your system</p>
<p>Chicken soup—Chicken contains a natural amino acid called cysteine, which can thin the mucus in your lungs and make it less sticky so you can expel it more easily</p>	<p>Vitamin C: A very potent antioxidant; use a natural form such as acerola, which contains associated micronutrients. You can take several grams every hour till you are better unless you start developing loose stools</p>	<p>Propolis: A bee resin and one of the most broad-spectrum antimicrobial compounds in the world; propolis is also the richest source of caffeic acid and apigenin, two very important compounds that aid in immune response</p>	<p>Olive leaf extract: Ancient Egyptians and Mediterranean cultures used it for a variety of health-promoting uses and it is widely known as a natural, non-toxic immune system builder</p>

Tamiflu is REALLY Bad Medicine

Original article by Dr. Mercola. Edits and amendments by Jim Meehan, MD

[OSELTAMIVIR](#) is an antiviral medicine. It is used to prevent and to treat some kinds of influenza or the flu. It will not work for colds or other viral infections. The lowest GoodRx price for the most common version of oseltamivir is around \$51.94, 60% off the average retail price of \$132.39.

Story at-a-glance

- The antiviral drug Tamiflu has been touted as effective in reducing complications of flu such as bronchitis and pneumonia. Sales of the drug skyrocketed during the hyped bird- and swine flu pandemics of 2006 and 2009. But some of the evidence supporting its use has turned out to be based on fraudulent and/or missing data
- Two employees of a communications company admitted they were paid to ghostwrite studies where the conclusion specifically had to be in support of Tamiflu's effectiveness
- Side effects of Tamiflu include convulsions, delirium and delusions. The death of five Japanese children and seven adults has been linked to the drug. Disturbingly, a 2009 study found more than half of all children taking Tamiflu experience side effects, including neuropsychological effects such as altered behavior and nightmares. Other rare side effects such as toxic epidermal necrolysis and blindness have also been reported
- While antiviral drugs such as Tamiflu have been used with greater frequency, the traditional first line of defense against the flu has been vaccines. The evidence against flu vaccines is rapidly mounting as well, and in recent years, a number of damaging studies published in the medical literature, negating the claim that flu vaccine is the best form of flu prevention

Tamiflu and Relenza are drugs commonly used for the prevention and treatment of influenza in adults and children. Past research has hailed the drugs for reducing hospital admissions and complications as a result of the virus. But in the latest Cochrane Review, recently published in the BMJ, researchers say there is no solid evidence to support such claims.

Tamiflu (oseltamivir) and Relenza (zanamivir) are classes of drugs known as neuraminidase inhibitors. Both drugs are thought to prevent and reduce symptoms of the flu by stopping the influenza virus from spreading inside the body.

At present, Tamiflu is used to combat flu in patients 2 weeks of age and older whose symptoms have not lasted longer than 2 days. It can be used to prevent flu in patients aged 1 year and older. Relenza is used to tackle flu in patients aged 7 years and older and can be used for flu prevention in those aged 5 years and older.

According to the researchers involved in this latest review, including Dr. Carl Heneghan

of the University of Oxford in the UK and Dr. Peter Doshi of the University of Maryland School of Pharmacy in the US, both drugs are stockpiled for use against seasonal and pandemic influenza. For example, the US has spent over \$1.3 billion on reserves of influenza antivirals.

This stockpiling has been based on international and national recommendations from bodies such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC). But what are their recommendations based on?

The team says that for the European CDC, neuraminidase inhibitor recommendations were based on a summary of benefits and harms carried out by the European Medicines Agency (EMA), while other recommendations have been based on the findings of trials from drug manufacturers, such as GlaxoSmithKline (GSK).

In 2009, Cochrane researchers looked to verify the safety and effectiveness of neuraminidase inhibitors. However, drug manufacturers refused to provide full access to clinical trial data of the drugs, which hindered their efforts.

This raised questions as to whether the risks and benefits of influenza antivirals have been accurately reported, and whether they should be stockpiled for the treatment of seasonal and pandemic flu in children and adults.

In 2012, Medical News Today reported on a story detailing how [the BMJ were putting pressure on Roche](#) - the manufacturers of Tamiflu - to release trial data for the drug.

Does Tamiflu Work? Questions Continue

By [Daniel J. DeNoon](#)

FROM THE WEBMD ARCHIVES

Nov. 14, 2012 -- Does the blockbuster flu drug Tamiflu really work?

Nobody knows for sure, claims the prestigious Cochrane Collaboration, a group that issues careful analyses of the evidence behind drugs and vaccines. Cochrane researchers say there's not enough evidence to prove Tamiflu works.

The CDC and the World Health Organization recommend the drug as effective. The FDA and the European Medicines Agency approve Tamiflu for the treatment and prevention of flu.

Tamiflu can lessen symptoms and make flu illness one to two days shorter, the CDC says. It can also help prevent flu illness in people who have come into close contact with a [flu](#) patient.

But it's not a cure-all, says pediatric infectious disease specialist Marcelo Laufer, MD, of Miami Children's Hospital.

"One of the problems is that Tamiflu is seen by the public as a drug that will save you

from all cases of the flu," he says. "Tamiflu can decrease the duration of illness by 30% to 40%, and decrease flu severity by about 40% -- but only if taken in the first 36 to 48 hours of illness. And you know that will not happen all the time."

Request for More Data

Cochrane researchers, joined by the BMJ (formerly the British Medical Journal), complained that Tamiflu maker Roche is keeping important data from the public. They note that [despite requests dating back to 2009](#), Roche refuses to release crucial data from eight of 10 Tamiflu [clinical trials](#).

"This means that taxpayers in the United Kingdom and around the world have spent billions of dollars stockpiling a drug for which no one except the manufacturer has seen the complete evidence base," Fiona Godlee, BMJ editor-in-chief, wrote in an editorial.

In a letter sent this week to respected Oxford professor John Bell -- a Roche board member -- Godlee warned that too much Tamiflu data is being kept secret.

"There are [concerns](#) on a number of fronts: the likely overstating of effectiveness and apparent under-reporting of potentially serious adverse effects," she wrote.

The data in question is what researchers call "patient-level data" collected from each study participant in a clinical trial, with only identifying information removed.

In a response to BMJ, Roche last month issued a statement saying it does not make the data available to protect patient confidentiality.

"Roche provided the Cochrane group with access to 3,200 pages of very detailed information, enabling their questions to be answered," the statement says.

Prices for Popular Neuraminidase Inhibitors

Popularity	Brand Name (Generic Name)	GoodRx Fair Price	Price Trend	
	Tamiflu (oseltamivir)	63		See Prices
	OSELTAMIVIR is an antiviral medicine. It is used to prevent and to treat some kinds of influenza or the flu . It will not work for colds or other viral infections.			
	Relenza	66		See Prices
	ZANAMIVIR is an			

	antiviral medicine. It is used to prevent and treat flu infections caused by influenza A or B virus. It will not work for colds, other types of flu , or other viral infections.			
	Rapivab	977		See Prices
	PERAMIVIR is an antiviral medicine. It is used to treat some kinds of influenza or the flu . It will not work for colds or other viral infections.			

Prescription of anti-influenza drugs for healthy adults: a systematic review and meta-analysis

Published: 08 August 2009

[http://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(09\)70199-9/fulltext](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(09)70199-9/fulltext)

Summary

In publicly funded health systems with finite resources, management decisions are based on assessments of clinical effectiveness and cost-effectiveness. The UK National Institute for Health and Clinical Excellence commissioned a systematic review to inform their 2009 update to guidance on the use of antiviral drugs for the treatment of influenza. We searched databases for studies of the use of neuraminidase inhibitors for the treatment of seasonal influenza. We present the results for healthy adults (ie, adults without known comorbidities) and people at-risk of influenza-related complications. There was an overall reduction in the median time to symptom alleviation in healthy adults by 0.57 days (95% CI -1.07 to -0.08; p=0.02; 2701 individuals) with zanamivir, and 0.55 days (95% CI -0.96 to -0.14; p=0.008; 1410 individuals) with oseltamivir. In those at risk, the median time to symptom alleviation was reduced by 0.98 days (95% CI -1.84 to -0.11; p=0.03; 1252 individuals) with zanamivir, and 0.74 days (95% CI -1.51 to 0.02; p=0.06; 1472 individuals) with oseltamivir. Little information was available on the incidence of complications. In view of the advantages and disadvantages of different management strategies for controlling seasonal influenza in healthy adults recommending the use of antiviral drugs for the treatment of people presenting with symptoms is unlikely to be the most appropriate course of action.

[True Cost of the “Free” Flu Vaccine](#)

One insurer paid a wide variety of prices for the "free" flu shots given out at clinics, according to [California Healthline and Kaiser Health News](#).

The Affordable Care Act mandates that health insurers cover all federally recommended vaccines -- including the flu shot -- at no charge to patients, meaning insurers foot the entire bill.

Kaiser Health News looked at what its own insurance carrier, Cigna, paid for those free flu shots. At the high end, it shelled out \$85 for a flu shot given at a Sacramento, California, doctor's office that was affiliated with Sutter Health, one of the largest hospital chains in the state.

Further south, in Long Beach, Cigna paid \$48 for a shot. Prices in the Washington, D.C., area went even lower, to \$40 per shot at a CVS in Rockville, Maryland, and to \$32 per shot at a CVS in downtown Washington that's less than 10 miles away from the Rockville location.

Medicaid, on the other hand, pays far less for the flu shot -- \$15 in the District of Columbia and \$19 in Connecticut.

One expert told KHN that the variation has nothing to do with the cost of the drug, but stems from secret negotiations between health plans and providers. While patients are expected not to care since the shot is free to them, these costs come back to bite in the form of higher premiums -- which is one of the major complaints about the ACA.