

75 reasons why vaccines are needed and deniers are dangerous

If you are reading this, chances are that you repeated an anti-vaccine myth or said you weren't vaccinating your children, and someone referred you in an attempt to dispel that myth. If so, I truly hope you keep reading. Because as you know, this issue is vitally important.

Vaccines are one of the safest and most effective medical tools ever invented. Hang on, hang on. Before you sigh and click "exit", please continue on. Vaccines have saved literally millions of lives and have eradicated two previously rampant diseases from the face of the planet (smallpox and rinderpest), and they potentially have the capability of eliminating several more, including polio and measles. Unfortunately vaccines have been getting rather unfair treatment from people who make all manner of false claims about their risks. The problem is that impressionable parents believe these lies, and vaccination rates have been falling. This has led to unfortunately predictable outbreaks of several vaccine-preventable diseases, including several [outbreaks](#) of measles which have killed thousands of children this year alone.

[Editor's note: Doc Bastard is the pseudonym of a trauma and general surgeon.]

That's where this article steps in. I have compiled a list of the most oft-repeated myths, half-truths, and outright lies that hardcore anti-vaccine advocates use to scare parents. And I get it – you love your children and want to protect them. I'm a parent too. I have two small children whom I love more than life itself, and just like you I would do anything and everything to keep them safe.

So with that said, please read on. Nothing I am presenting here is opinion, it is all backed by hard evidence. I'm placing a handy alphabetized table right here with all the arguments I'll be discussing for easy reference.

100% effective	100% safe	72 doses	Aborted fetus	Allergies	Aluminum
Anti-vaccine doctors	Autism	Autoimmune	Bill Gates	Bloodstream	Cancer virus
Cause cancer	CDC	Compulsory	Contamination	Cutter	Didn't exist
Didn't save us	Flu sheds	Flu shot	Flu shot causes	Formaldehyde	Gardasil
GBS	Genetic drift	Harmless	flu	Herd immunity	Insert
Hep B	Measles	Mercury	MMR kills	MMS	Money
Low prevalence	doesn't exist	Natural immunity	Never flu	No measles	Not antivax but
MTHFR	My choice	Pertussis	POF	Poling	Polio DDT
Only MMR	Peanut oil	Protects cancer	Religion	Safer vaccines	Safety study
Polio renamed	Polysorbate 80	Seizures	Shedding	SIDS	Simpsonwood
Sanitation	Schedule				

		Too many too soon		Unavoidably unsafe	
Squalene	Survivorship		Toxins		Underreported
Unvax healthier	Vaccine court	VAERS	Vax vs unvax	Vaxed outbreaks	Wakefield
Waning immunity	Why unvax threat	Zimmerman			

Let's get started.

1) If you want to pump your kid full of massive amounts of toxins . . .

This is almost universally the first argument I see. This is the type of picture that is usually flashed:

vaccine shots x

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A terrified crying child, big syringes full of a large amount of scary yellow stuff that looks like apple juice, multiple injections at one time. I could call this a lot of things – fear mongering, scare tactics, hyperbole. But a far more accurate term would be *nonsense*. Here is what an actual vaccine injection looks like:

well injection tmagarticle

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Calm baby, tiny needle (which you can barely even see because it's so small), tiny amount of clear fluid. The actual volume of a vaccine is 0.5 ml. That's just 10 drops. Sure some kids cry when they receive vaccinations, but that's because needles can be scary. But regardless, there is no pumping, no massive amounts of anything, and certainly no toxins.

2). . . toxins like mercury

There is no elemental mercury in any vaccine, nor has there ever been. What you are referring to is thimerosal, which is approximately 50% ethylmercury. And while the word "ethylmercury" has the word "mercury" in it, that does not make it either mercury or poison. Think of it this way: the word "chair" has "hair" in it. That doesn't mean it's made of hair.

Ok, that is admittedly a terrible analogy. How about this: sodium is a metal which explodes when exposed to water, and chloride gas is highly poisonous. But when you (well, not you exactly) combine the two into a compound, it produces ordinary table salt (which can still be toxic, but that's a subject for another time). This is basic chemistry. Basic. Heh. Yes, that was a chemistry joke.

Anyway, ethylmercury is not the mercury found in thermometers. It is also not the dangerous mercury compound found in fish. That would be methylmercury, and though it is only one letter different than

ethylmercury, it is an entirely different compound with entirely different metabolism and effect on human physiology (just like ethanol, which is the alcohol found in your wine, and methanol, which will kill you if you drink it). [Studies have found](#) that ethylmercury is readily metabolised and excreted so does not increase blood mercury levels, while methylmercury lingers for much longer and is much more toxic.

This all ignores the fact that thimerosal was removed from all childhood vaccines in the US in 2001. I will address this point further later.

3) . . . and aluminum . . .

Aluminum salts have been used as adjuvants in vaccines for decades. Adjuvants increase the immune response, increasing the chance that a vaccine will grant immunity. The exact mechanism by which it does this is still not clear, but what is clear is that aluminum salts have been extensively studied and found to be safe. [This is an excellent review article](#) which documents the excellent safety profile and the minimal risks (including macrophagic myofasciitis) of using aluminum salt adjuvants. Yes, they have risks. But they are very small, mainly because the amount of aluminum in any vaccine is very small. There is also no aluminum in MMR, nor has there every been.

4) . . . and polysorbate 80 . . .

Polysorbate 80 is a surfactant and emulsifier used in innumerable foods, cosmetics, eye drops, mouth wash, etc. It is also used in some vaccines as a stabiliser, but in such tiny amounts as to be negligible to human physiology.

As a comparison, the HPV vaccine contains 50 microgram of polysorbate 80, while a small scoop of ice cream contains about 170,000 micrograms, or [3400 times as much polysorbate 80](#). It has [also been studied](#) in infants given vaccines with and without polysorbate 80, and it has been found to be safe.

5) . . . aborted foetal tissue . . .

No babies are aborted to manufacture vaccines. A few vaccines are grown on cell lines derived from a foetus that was aborted decades ago, because viruses grow better on the type of cells that they normally infect. The vaccine is then washed, eliminating all but a trace of the growth medium. So there are no dead babies in any vaccine, and no new fetuses are aborted to make vaccines.

6) . . . formaldehyde . . .

Formaldehyde sounds scary, because everyone knows it is the chemical used to preserve corpses. However, formaldehyde is actually a very normal part of human metabolism. As you sit there reading this, your cells are creating way more formaldehyde than could be found in any vaccine. In fact, in the 30 or so seconds it took you to read this paragraph thus far, your liver has metabolised about 11 mg of formaldehyde, which is over 10 times as much as an infant could ever receive from even multiple vaccines (0.7 mg). In the time it took you to read that last sentence, an infant would have already metabolised all the formaldehyde from their vaccines twice. If your infant read that last sentence, however, then Mensa would probably like to have a word with you. And her.

7) . . . cancer virus.

Unfortunately many thousands of people unknowingly (at the time) received a polio vaccine that was tainted (or contaminated, if you'd prefer) with SV40, which is a virus that infects monkeys (the "S" stands for "simian"). And that is truly unfortunate. However, SV40 was not discovered until 1960, whereas the polio vaccine was first produced in 1955. It was simply not yet known. But once it was discovered, it was removed from the polio vaccine (obviously).

Still, by the time it was removed in 1963 about 90% of children had received a polio vaccine contaminated with the virus, which causes tumours in animals. Of course the fear was that it would also cause cancer in humans, and it is true that SV40 has been found in various human cancer cells. However, it has been extensively studied, and while the virus has been found in human cancers, a [review of the evidence](#) has shown that SV40 does not *cause* cancer in humans. It has been studied for over 50 years, and no association has been found. It also hasn't been in any vaccine since 1963, so there is no cancer in any vaccine.

8) Vaccines cause autism.

The short answer here is "No they don't", but that won't (and shouldn't) satisfy you. Vaccines have been studied extensively for their possible role in causing autism. There are exactly ZERO large studies that show any association between vaccines and autism, and while I'm thinking about it there are exactly ZERO small studies which show it. This myth comes from a very small study by former doctor Andrew Wakefield in 1998, where his sample size was only 12 patients. The study was retracted due to ethical violations and scientific misrepresentation, and Wakefield was stripped of his licence to practice medicine (you can read more about his fraud [here](#)).

On the other hand, there are multiple studies of tens or even hundreds of thousands of children from various countries around the planet, each of which show no association between vaccines and autism. Here are a few of them:

- [1\) Danish study of MMR and 537,000 children – no link](#)
- [2\) Finnish study of MMR and 535,000 children – no link](#)
- [3\) US study of MMR and 95,000 children – no link](#)

[4\) UK study of thimerosal and DPT/DT and 109,000 children – no link](#)

[5\) Danish study of thimerosal-containing vaccines and 467,000 children – no link](#)

[6\) US study of thimerosal-containing vaccines and 124,000 children – no link](#)

[7\) Danish study of MMR and 657,000 children \(including high risk children\) – no link](#)

That last one was just published March 4, 2019 and represents probably the largest, most comprehensive study which shows absolutely no link between MMR and autism. They even looked at children who had siblings with autism and other risk factors that would make them high risk for autism, but they still found no link. The conclusion speaks for itself:

Conclusion: The study strongly supports that MMR vaccination does not increase the risk for autism, does not trigger autism in susceptible children, and is not associated with clustering of autism cases after vaccination. It adds to previous studies through significant additional statistical power and by addressing hypotheses of susceptible subgroups and clustering of cases.

That is 7 huge studies including over 2.5 million children vs various anecdotes or Wakefield's fraudulent paper that started it all.

Vaccines DO NOT cause autism.

9) Only MMR has been studied.

I will refer you back to response 8 above. Studies 4, 5, and 6 all looked at children who received thimerosal-containing vaccines. As mentioned above MMR never contained thimerosal. So yes, other vaccines have most definitely been studied, and they all show the same thing – that those other vaccines also do not cause autism.

10) MTHFR

MTHFR stands for methylenetetrahydrofolate reductase. It is a gene on chromosome 1 which encodes an enzyme that catalyses 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate (which has to do with homocystine metabolism and is some pretty fancy science). There are many polymorphisms (ie variations) of the genes, and some are incredibly common (for example, 10% of the North American population has 2 copies of a specific polymorphism). Preliminary research shows it may increase the risk of schizophrenia or dementia, but no research shows the gene has anything to do with any vaccine side effect.

MTHFR is a polymorphism, not a mutation. Those two words are not synonymous, and you can read about the difference between them [here](#).

11) What about Hannah Poling?

Hannah Poling had a very rare mitochondrial disorder, so rare that its exact incidence is unknown. She received her normal series of vaccines at 19 months old (DTaP, MMR, HiB, varicella, polio), and two days later was lethargic with a rash. She was diagnosed with vaccine-derived varicella, and several months

later continued to have delays in her neurological development. Ultimately she was diagnosed with encephalopathy, followed by language, behaviour, and communication problems. Though mitochondrial disorders can appear quite similar to autism, her parents (including her father, who is a neurologist) took her case to the Vaccine Court and won.

While it may appear that means that vaccines caused her autism, it really doesn't. Dr. Paul Offit has reviewed this case in very specific detail [here](#), but I'll give a short summary nevertheless: Infections are known to exacerbate encephalopathy but vaccines are not. And children with mitochondrial disorders are at a higher risk of infections, which can exacerbate encephalopathy.

So did vaccines cause Hannah's autism? No.

12) Dr. Andrew Zimmerman said vaccines cause autism.

Andrew Zimmerman is a paediatric neurologist who co-authored a case report in 2006 which documented a child with a mitochondrial disorder who developed autism after being vaccinated (sound familiar?). While this is being translated by anti-vaccine advocates as "VACCINES CAN CAUSE AUTISM!", the issue is actually much more complex. Dr. Zimmerman's full statement was: "There may be a subset of children who are at risk of regression if they have underlying mitochondrial dysfunction and are simultaneously exposed to factors that stress their mitochondrial reserve (which is critical for developing the brain). Such factors might include infections, as well as metabolic and immune factors, and vaccines".

In other words, children with these extremely rare disorders may be predisposed to developing autism or autism-like symptoms if they are exposed to some environmental trigger. Vaccines may be one of them, but there are many others as well. Keep in mind that children are exposed to thousands of antigens every single day of their lives. Unless they are kept in a sterile bubble, the risk with these children is way higher with infectious diseases compared to vaccines.

13) Dr. Wakefield was exonerated.

Mister Wakefield lost his licence to practice medicine and thus should not be called "Doctor". And no he wasn't. Charges against one of his co-authors, who has stated both his continued support of MMR and that their paper did *not* establish any link between MMR and autism, were dropped on appeal. Mr. Wakefield, on the other hand, lost his licence due to his elaborately fraudulent paper which involved [paying children at his kid's birthday party £5 for blood samples, without permission from an ethics committee](#). [Wakefield was also trying to patent his own single measles vaccine by tarnishing the reputation of MMR](#). He is a bad person who wrote a bad study and has been using his infamy to spread bad misinformation which harms children.

Wakefield was *not* exonerated. He never won any appeal and he did not get his licence back. He now spends his time in the US making anti-vaccine propaganda movies with other anti-vaccine advocates, as well as [spreading his propaganda to impressionable immigrants, which has caused outbreaks of measles](#). In short, Andrew Wakefield is a hazard to society.

14) CDC whistleblower.

This is merely an elaborate conspiracy. It involves a team of CDC researchers, including William Thompson, supposedly throwing data in the garbage can (literally) which purportedly showed that black children were more than three times more likely to develop autism as a result of vaccines. This was supposedly found after a non-scientist named Brian Hooker re-evaluated the data.

Unfortunately there are a few problems with this: first, who keeps paper data anymore? Data is all digital and backed up repeatedly in multiple locations. If they didn't then they are shoddy researchers who should not be trusted with anything. Second, William Thompson is still employed by CDC. Whistleblowers generally do not continue working for the company or agency against whom they blew a whistle. Third, the re-evaluation by Hooker was completely incorrectly done, using the wrong statistical analysis to evaluate the data. And fourth, even if the re-evaluation were true (it isn't – [read here](#)), it only shows an increase in risk in one demographic (black males). It did not show any increased risk in white boys or girls. This would mean that vaccines STILL do not cause autism in *every other demographic*.

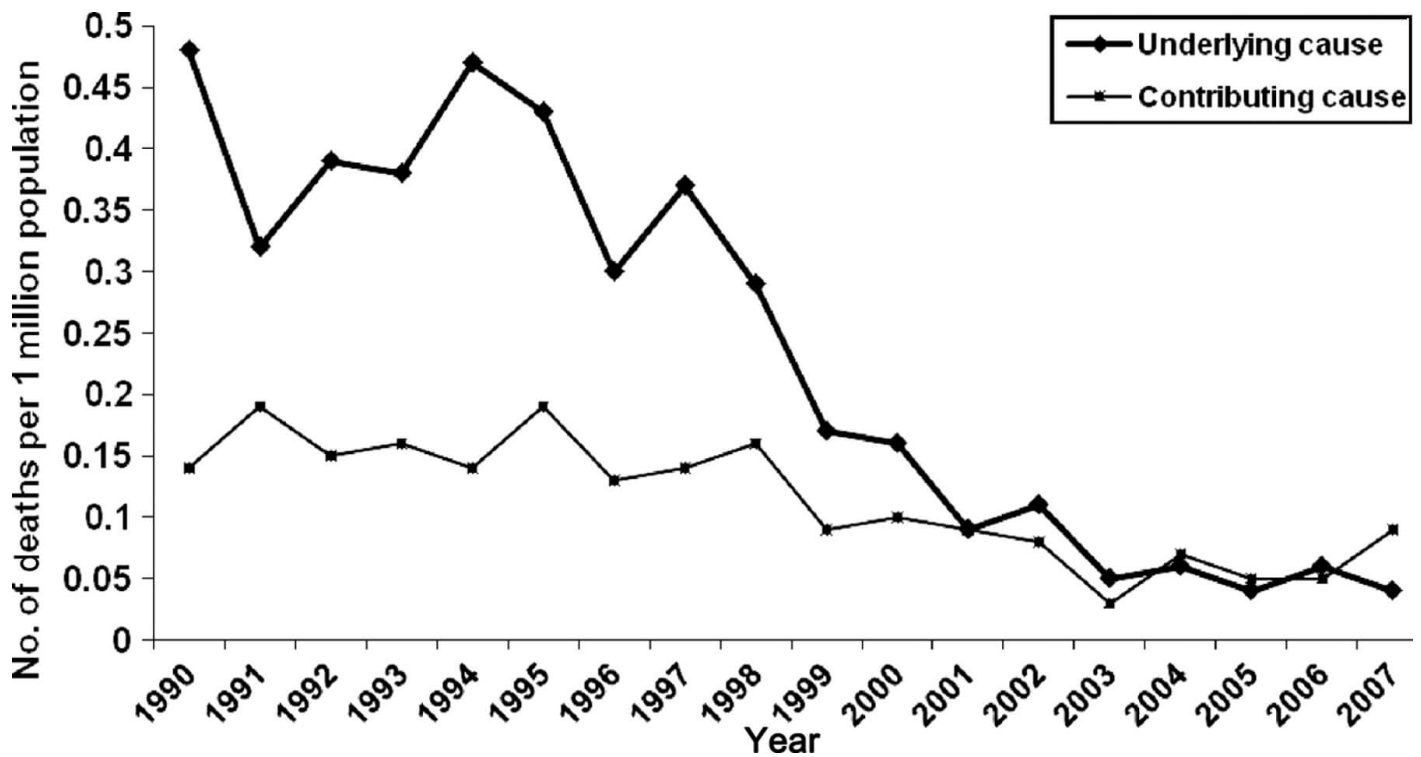
15) Why is my unvaccinated kid such a threat to your vaccinated kid if vaccines work?

There are several answers to this question. First, no vaccine is 100% effective. The closest is measles, which is 97% effective after two doses. So despite the fact that a very high percentage of children are vaccinated, there is a 3% chance that it will still fail. Second, not all children can be vaccinated due to immunocompromise. Third, some children are too young to be vaccinated and are completely unprotected. Fourth, believe it or not we care about your child too. No child should contract and suffer through any of these diseases if it can be avoided.

16) These are all just harmless childhood diseases.

None of these vaccine-preventable diseases is harmless. Measles, for example, continues to kill over 100,000 children every year. In fact, there has only been one year on record that measles has killed fewer than 100,000 children (2016). Between 2000 and 2017, global measles vaccination increased from 72 to 85%, while during the same period measles rates decreased 83% and measles deaths fell 80%. Let me repeat – *measles deaths fell 80%*. To this you may say “But that isn't happening in *my* country!”, but that is rather heartless. Children are dying of these diseases to this day.

And that's *just for measles* (which seems to have become the poster child for “harmless” vaccine-preventable diseases). Unfortunately this argument ignores all the other various deadly and/or debilitating diseases for which vaccines exist (hepatitis B, Haemophilus influenza, meningitis, polio, etc). Even chicken pox. Yes, chicken pox, which used to kill about hundred kids in the United States alone each year before the vaccine. Even one child killed by chicken pox is too many. And after the vaccine was introduced, this happened:



Some people try to use an episode of “The Brady Bunch” as evidence that measles was considered harmless, but keep in mind that was a sitcom, produced to make people laugh. It was not a documentary on the supposed (but nonexistent) benign nature of infectious diseases.

Consider this picture:

grave

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which shows two young cousins age 4 and 7 who died within 2 days of each other from diphtheria, which is preventable with a vaccine.

Or this:

grave

Image not found or type unknown

which shows two brothers and a sister, ages 7, 10, and 11, who all died within about two weeks of each other of diphtheria, which is preventable with a vaccine.

The fact is there are graveyards filled with the gravestones of children who died of vaccine-preventable diseases. While it is true that most children survive these diseases, *all* of them can kill, and not a single one of them is truly benign. *NONE* of them.

17) But there are too many vaccines on the schedule. 72 doses!

You have probably seen this graphic (or a similar one):

DOSES of VACCINES for U.S. CHILDREN from BIRTH - 18 YEARS

1960

TOTAL DOSES: 5

Polio
Smallpox
DTP

1983

TOTAL DOSES: 24

DTP (2 months)
OPV (2 months)
DTP (4 months)
OPV (4 months)
DTP (6 months)
MMR (15 months)
DTP (18 months)
OPV (18 months)
DTP (4 years)
OPV (4 years)
Td (15 years)

2016

TOTAL DOSES: 69 (50 injections)

Influenza (pregnancy)	Influenza (18 months)
DTaP (pregnancy)	Hep A (18 months)
Hep B (birth)	Influenza (30 months)
Hep B (2 months)	Influenza (42 months)
Rotavirus (2 months)	DTaP (4 years)
DTaP (2 months)	IPV (4 years)
HIB (2 months)	MMR (4 years)
PCV (2 months)	Varicella (4 years)
IPV (2 months)	Influenza (5 years)
Rotavirus (4 months)	Influenza (6 years)
DTaP (4 months)	Influenza (7 years)
HIB (4 months)	Influenza (8 years)
PCV (4 months)	Influenza (9 years)
IPV (4 months)	HPV (9 years)
Hep B (6 months)	Influenza (10 years)
Rotavirus (6 months)	HPV (10 years)
DTaP (6 months)	Influenza (11 years)
HIB (6 months)	HPV (11 years)
PCV (6 months)	DTaP (12 years)
IPV (6 months)	Influenza (12 years)
Influenza (6 months)	Meningococcal (12 years)
Influenza (7 months)	Influenza (13 years)
HIB (12 months)	Influenza (14 years)
PCV (12 months)	Influenza (15 years)
MMR (12 months)	Influenza (16 years)
Varicella (12 months)	Meningococcal (16 years)
Hep A (12 months)	Influenza (17 years)
DTaP (18 months)	Influenza (18 years)

**In 1986, Pharmaceutical manufacturers producing vaccines were freed from ALL liability resulting from vaccine injury or death by the Childhood Vaccine Injury Act.*

With this, vaccines became HIGHLY profitable. There are 271 vaccines in development and mandatory vaccine laws for children — and ADULTS — being pushed in most states.

This is supposed to scare people into thinking that kids just get more unnecessary shots compared to 50 years ago. But when you look closer, the truth becomes clear. In 1960 there were only three shots which prevented 5 diseases (polio, smallpox, diphtheria, pertussis, and tetanus). By 1983 this had been expanded to include 3 more diseases (measles, mumps, and rubella), and studies had shown that efficacy

was much better for several vaccines when boosters were given. By 2016 we were now able to protect children from several other diseases, including flu, rotavirus, chicken pox, hepatitis A, hepatitis B, haemophilus influenza, pneumococcus, and meningitis. Protecting children from diseases is a good thing, not a bad thing. Yes we give children many more shots now, but only because we *don't want them to suffer or die* the way so many others did.

I had chicken pox as a child because there was no vaccine for it at the time. I remember it vividly because it was unquestionably the worst week of my life. I wouldn't wish chicken pox on my worst enemy, so it's fortunate we now have a vaccine for it.

I watched my sister almost die from H flu meningitis when she was a toddler (also no vaccine at the time). She survived and recovered fully, but the kid in the adjacent room was not so lucky. He died. But we can now prevent that disease, which is a *very good thing*.

18) There are too many vaccines too soon.

There is no evidence to support such a statement. You have probably been led to believe that children's immune systems are not developed enough to be able to handle the antigens in a vaccine, but keep in mind children can handle all the other thousands or millions of antigens they deal with every day. If you've ever watched an infant for more than 5 seconds, you know they put everything right in their mouths. That teething ring your little angel just put back in her mouth was sitting on the floor that you walk on. Unless you sterilised your shoes this morning, your floor (and that teething ring) are covered in antigens (ie germs). Your child's immune system can handle that, so it can handle a few antigens in a few vaccines, even at the same time.

And yes, there is evidence to support this statement right here: [On-time vaccine receipt in the first year does not adversely affect neuropsychological outcomes.](#)

19) But the vaccine schedule has never been tested.

Yes it has. In fact, [here is one such piece of evidence](#). And [here is a study](#) of macaques who were given the full infant vaccine schedule and observed for 5 years (keep in mind that autism generally manifests around 2 years old), and there were no neurodevelopmental problems. The ironic part of this study was that it was funded by an anti-vaccine organisation who was expecting to find problems, but they didn't. [Needless to say they were *not* happy.](#)

20) But the vaccine court has paid out billions. This proves vaccine injury is real and vaccines are dangerous.

The vaccine court was created in the United States to make it easier for parents to get compensation for serious adverse events following vaccination. So let's actually look at the numbers from the vaccine court. According to the latest statistics (July, 2018) between 2006 and 2016 a total of 3,153,876,236 doses of vaccines were distributed in the US. Over that same time period, there were 3727 compensable claims in the vaccine court amounting to \$1.74 billion (the \$3.5 billion number being bandied about is the total amount give by the court since its inception in 1989). Crunching the numbers shows us 3727 claims

divided by 3,153,876,236 doses of vaccines, which comes out to 0.000118%. That is just over 1 compensable claim per million doses. In other words, the amount the vaccine court has awarded seems huge at first glance, but it is far less important than the actual number of cases, and the number of cases is far less important than the proportion of compensable cases compared to doses given. And that's one per million doses

The numbers from the vaccine court prove that vaccines are not 100% safe (which is fully acknowledged by everyone in the medical field), but that they are *REALLY* close.

As for the claim that vaccine manufacturers are immune from being sued, no they aren't. While it is true in the US that you go through the vaccine court first, it is still possible for the manufacturers to be sued. And this is of course ignoring the fact that the vaccine court (and NCVIP) only applies in one country on the planet.

21) Only 10% of vaccine reactions are even reported.

I'm not sure where that estimate came from, but I do see it repeated very often. Regardless, of course most adverse events aren't reported, because most vaccine reactions are mild and self-limiting (injection site pain, swelling, and redness). My arm was a bit sore after my last flu shot. Technically that is a "vaccine reaction", but did I report it? No. The serious ones get reported.

22) It's my child, so it's my choice.

Of course it's your choice, and no one is saying it isn't (except the truly hardcore vaccine proponents, who overstate things about child protective services). But what if you choose to beat your child with a plank of wood? Is that your choice?

Yes, how you raise your child is your choice. No one is trying to take your choices away from you. If you want to feed your kid nothing but organic, free range, sugar-free, gluten-free, non-GMO kale, that's your prerogative. You'll probably end up with a malnourished (and picky) (and very angry) kid, but that's completely up to you. And sure, not vaccinating your child is also your choice. No one is going to force you to take your kid to the doctor for her shots no matter what anti- or pro-vaccine fear mongers want you to believe, and no one is going to snatch them away and do it without your knowledge or consent. But if you are making that choice based on misinformation and fear, then you are making the wrong choice.

23) Compulsory vaccines are wrong.

I suppose that depends on your definition of "wrong". If you mean it violates your civil rights or civil liberties, no it doesn't. The United States Supreme Court ruled that states may indeed enact mandatory vaccination laws in [Jacobson v Massachusetts](#). And they also ruled in [Zucht v. King](#) that schools may refuse admission to children who are not vaccinated.

There are currently mandatory vaccination laws in Argentina, Belgium, Bosnia and Herzegovina, Bulgaria, China, Croatia, Czech Republic, France, Germany, Hungary, Italy, Malta, Latvia, Pakistan, Poland, Serbia, Slovakia, Slovenia, and Ukraine (no, the US and Canada have no federal law mandating vaccines,

though all 50 states and 3 provinces require children to be vaccinated prior to starting school).

Vaccination laws do not violate any civil liberties.

24) Unvaccinated children are healthier.

No they aren't. There are no reputable studies that support this argument. There are a few which have been published, most notably one by Mawson which was first retracted and then published in a predatory journal, but it was just a questionnaire of mothers who homeschool their children. Medical records were not consulted, and vaccination status was not verified. In fact, the authors even state this as the potential limitation of the "study": "We did not set out to test a specific hypothesis about the association between vaccination and health." The other is a questionnaire (again, not a study) by German homeopath Bachmair, which is also not a study.

Fortunately there are actual studies that look at the health of vaccinated vs unvaccinated children, such as these:

[Vaccination Status and Health in Children and Adolescents](#)

[Early-life determinants of asthma from birth to age 20 years: A German birth cohort study](#)

[The effect of vaccination on children's physical and cognitive development in the Philippines](#)

[Vaccinated versus unvaccinated children: how they fare in first five years of life.](#)

[High Intensive Care Unit Admission Rate for 2013–2014 Influenza Is Associated with a Low Rate of Vaccination](#)

All of these real studies show the same thing – that unvaccinated children are *NOT* healthier but contract vaccine-preventable diseases at a *MUCH* higher rate than vaccinated children." Vaccinated children do *not* have a higher risk of asthma, allergies, or cognitive issues.

25) There is no true study of unvaccinated vs vaccinated children!

True. That study would be unethical, because it would purposefully withhold vaccines from 50% of the study participants, which would be the vulnerable children everyone is trying to protect. A "true" vaccinated-unvaccinated study would observe tens or hundreds of thousands of children from birth through adulthood, with only half of them getting vaccinated, leaving the other half vulnerable, though no one would know which half was which. While I'm sure some die-hard anti-vaccine advocates would volunteer their children to be in the unvaccinated arm of such a study, that's not the way these randomised studies work. First, there would be a 50% chance that anyone else's child would be in the unvaccinated arm, leaving them vulnerable to various diseases, and no reasonable parent would consent to such a study. Plus, there would be a 50% chance the anti-vaccine advocates' child would be in the vaccinated arm, and I somehow doubt they would be ok with that either.

Regardless, no researcher with any sense of ethics would allow such a study to be done, knowing that half the children in the study are being left unprotected from so many preventable diseases, and no institutional review board would allow such a study to be proposed, let alone done. It will simply never happen.

26) According to VAERS . . .

If you are using the [Vaccine Adverse Event Reporting System](#) in your argument, then I need to explain what VAERS is and how it works. VAERS is a passive reporting system where literally anyone can report any adverse reaction to a vaccine. I'll repeat – *anyone can report any adverse reaction in VAERS*. As an example, there are several children who have died in car accidents in VAERS:

vaers

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There was also (for a short time) a report in VAERS of Dr. James Laidler receiving a measles vaccine, and the following day he reports that his skin turned green, his muscles grew, and he displayed uncontrolled rage: signs that he was turning into The Incredible Hulk. As Dr. Laidler [wrote](#),

vaers

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And before you ask, that's not a joke. I mean the "reaction" was clearly a joke, but the fact that Hulk is in

VAERS is not. It just underscores the worthlessness in using VAERS as evidence that vaccines are unsafe. Do not misunderstand me, VAERS is extremely important because it can help scientists track side effects from various vaccines. But make no mistake: VAERS is not evidence that “vaccine damage” is real or that vaccines are dangerous.

27) Vaccines are not 100% effective.

No they aren't, and no one has ever claimed they are. Seat belts aren't 100% effective either, but you should still wear one.

Let's just see exactly how well they do work:

impact

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Incidence of tetanus: decreased by 96%

Incidence of pertussis: decreased by 86%

Incidence of measles: decreased by over 99%

Incidence of hepatitis B: decreased by 87%

Incidence of diphtheria: decreased by 100%

Yes, vaccines are spectacularly effective.

28) Vaccines are not 100% safe.

Nothing is 100% safe. When discussing severe side effects, vaccines are approximately 99.9999% safe (1 severe adverse event per 1 million doses). If I told you that the severe complication rate from a “routine” surgery was 1/1000, would you run away screaming? Probably not, but that is the true number for “routine” gall bladder surgery, and it is literally *one thousand times higher* than the risk from any vaccine. And while many severe surgical complications result in death or permanent disability, the overwhelming majority of patients with severe adverse reactions from vaccines recover completely.

29) The flu vaccine is worthless.

I will agree that the flu vaccine is the least effective vaccine available, and the efficacy varies from year to year depending on how close the vaccines approximate the prevalent infecting strains. As opposed to the ones above, the average efficacy is around 45%, which at first admittedly sounds pretty terrible. But look at it this way – 45% is literally *infinity times higher* than 0%, which is exactly how effective *not* getting a flu shot is.

30) The flu shot causes Guillain–Barré syndrome.

GBS is a known complication of the flu shot – an extremely rare one. [The relative risk of GBS after any flu shot is 1.41 \(1.84 after pandemic flu shot, 1.22 after seasonal flu shot\)](#). However, the risk of GBS is significantly higher ([about 1-8 cases per 100,000 population](#)) after actually getting infected with the flu (or other infections).

[The risk of GBS after flu vaccination is less than 1 per million](#), and the vast majority of cases of GBS recover fully.

31) The flu shot causes the flu.

No it doesn't, and it never has. Not occasionally, not sometimes, *NEVER*. The flu shot is a dead virus vaccine, meaning it is 100% biologically impossible to get the flu from a flu shot. Feeling a little crummy for a day or two after a flu shot is *not* the flu – that's your body's immune system reacting to the shot, meaning it is doing what it is supposed to do. If you got the actual flu immediately after getting a flu shot, you had either 1) probably already acquired the virus but hadn't shown symptoms yet, or 2) picked it up wherever you got the shot.

Note this refers to the flu *shot*, not the flu *mist*, which is an attenuated vaccine.

32) The flu mist sheds.

Yes it does, but it is [only for about a week](#) and at [very low levels](#). And there are exactly 0 reported cases of actual illness from this virus. None. Zero. It has never happened.

33) Genetic drift means the attenuated flu virus can change back to wild-type and cause infections.

This is absolutely true. In fact, this most probably *will* happen. [And the odds are about 1 in 100 quintillion replication cycles](#). For anyone unfamiliar with that number, it's a trillion trillion, or 100,000,000,000,000,000,000. When you do the math, it will take approximately 1000 years for this to happen, and hopefully by then all infectious diseases will have been eradicated.

34) I've never gotten the flu shot, and I've never gotten the flu.

That's great. But let me pose this silly scenario: I put a banana in my fireplace every night before I go to sleep, and I have never had a bear break into my house. So does that mean the banana prevents bear attacks?

Ok ok, I'll give you a slightly less silly analogy – I've never gotten into a serious car accident and I don't wear my seat belt, so I don't need to wear a seat belt. Or consider this – I do not have a smoke detector in my house or a fire extinguisher, and I have never had a fire in my house, so I need neither a smoke detector nor a fire extinguisher. Or how about this – my kid has never crashed his bicycle and suffered a severe traumatic brain injury and he never wears a helmet, so he doesn't need to wear a helmet.

The fact that you've never gotten the flu despite not getting the flu shot doesn't mean you don't need the flu shot, it just means you happened not to need it before. It doesn't mean your immune system is better than anyone else's. It only indicates that you have been lucky so far.

35) Why would you give a 1-day old baby a hepatitis B vaccine?

Hepatitis B is not just an infection of IV drug abusers and prostitutes. It is an extremely serious infection worldwide, with nearly 300 million people suffering from it. An estimated 2 million children worldwide are infected with hep B. The big problem is that when contracted as a child, hepatitis B is much more likely to develop into a chronic disease, resulting in cirrhosis or liver cancer. It can be transmitted from mother to child during childbirth, or from child-to-child from bites or other bodily fluids. No one is saying your child is going to shoot up heroin at age 3, but at the same time you can't guarantee the little brat next door who is unknowingly and asymptotically infected isn't going to bite your kid and give him a death sentence.

The great part about the hep B vaccine is that it is extremely effective, with a [72% worldwide drop in prevalence due to widespread vaccination](#). That should also put your fear that a 1-day-old baby isn't equipped to handle a vaccine to rest. But wait, there's more! The best part is that the vaccine [has been shown to last for at least 30 years](#), with no boosters needed after the initial 3-shot series. In other words, a

vaccine given to a newborn child will last well into and through their doing-stupid-stuff years.

36) Vaccine immunity wanes.

Depending on the vaccine, yes sometimes it does. However, if it waned significantly, we'd be seeing epidemics of diphtheria, polio, and measles in previously vaccinated adults. Have you heard of any of those?

No?

Me either.

If you're still arguing, see #37 below.

37) The pertussis vaccine doesn't work.

It is true that the current pertussis vaccine doesn't work as well as the previous one. The original pertussis vaccine was a whole cell vaccine, meaning the entire *B. pertussis* bacterium (inactivated) was used, and it was extremely effective. However, due to a relatively high rate of local adverse reactions (pain, redness, and swelling), it was swapped for an acellular vaccine, which contains only pertussis toxin or other various components of the bacterium and not the whole organism. However, not only is the acellular vaccine more expensive, but the local side effect rate is about the same as the whole cell version. To make things worse, it is not as effective as the whole cell vaccine, and immunity tends to wane within 5-7 years. But immunity to the tetanus portion of the DPT combination vaccine also wanes in about 10 years, so boosters are recommended for both.

That's the end of that story. It works, but not as well as the previous version, and not as well as it should. A better vaccine is necessary. Don't worry, I'm not entirely satisfied with that answer either.

38) Natural immunity is better than artificial immunity.

That depends on your definition of "better":

-Longer lasting? Sure.

-Doesn't require a scary shot with scary-sounding ingredients which are not actually scary once you understand them? Most definitely.

-Requires you to suffer through the disease *AND SURVIVE* in order to gain immunity? *YES*.

Not suffering through a disease is always better than suffering through a disease, I assure you.

Plus, I am also baffled why anyone thinks "natural" is somehow better. Belladonna is natural, but it will kill you. Tornadoes are completely natural, but they will kill you. It doesn't get much more natural than the Sydney funnel-web spider, but it will kill you. Natural does *not* necessarily mean better. At all.

39) I've never met anyone who has had any of these diseases.

This statement is incredibly ironic since it implies that these vaccines actually work extremely well.

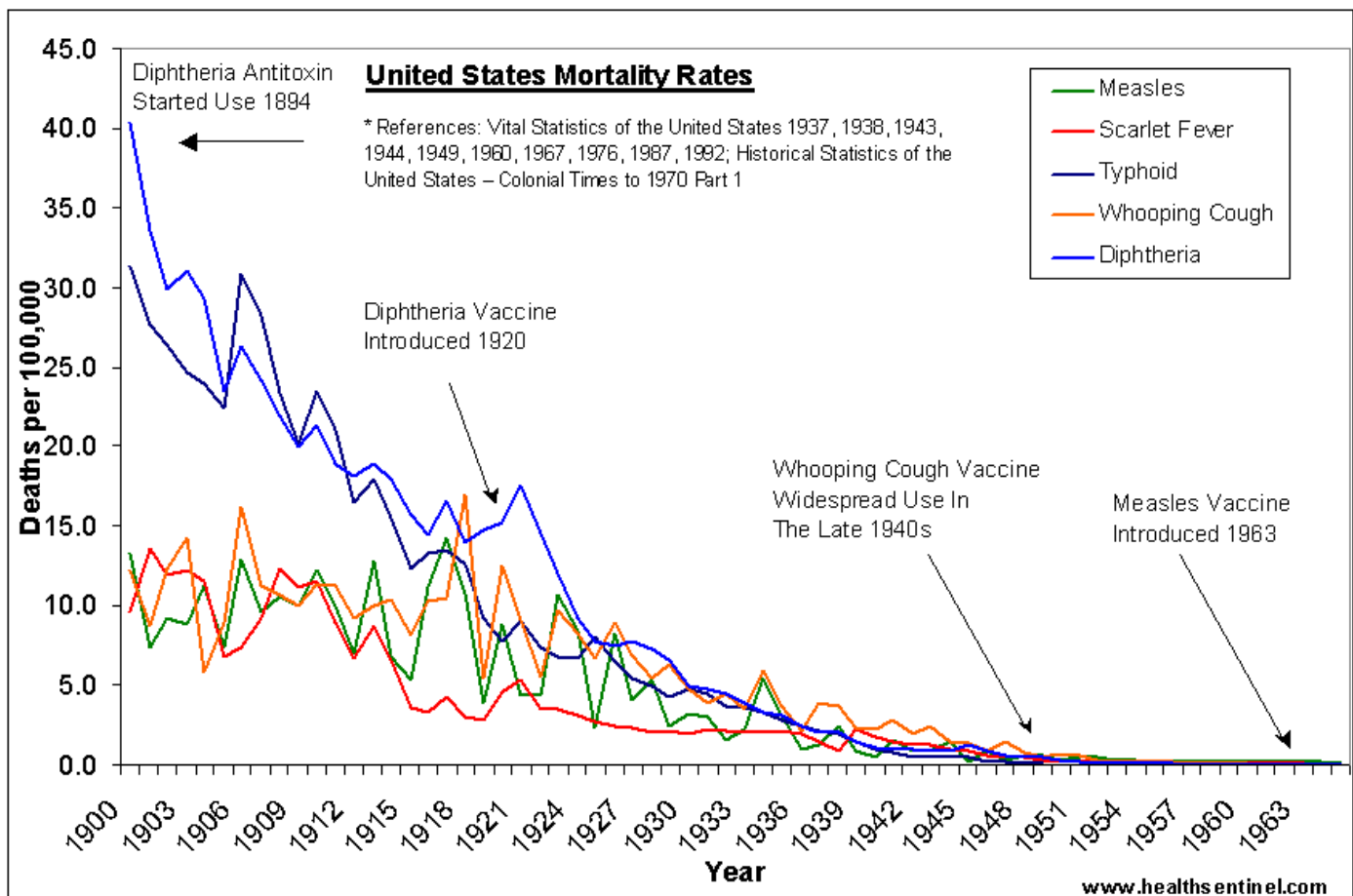
Vaccines are a victim of their own success. Because they work so well and have nearly eradicated so many previously common diseases, doctors in practice now have probably never seen most (if not all) of them, nor have parents. The memory of children dead or disabled from polio, the vision of rows upon rows of children in hospitals in iron lungs has faded to the point where some people actually believe polio was relatively harmless. The fact that smallpox hospitals, *entire hospitals dedicated to treating smallpox*, no longer even need to exist because of vaccines is lost to the ravages of time. No one remembers the parents waiting in line to get their kids vaccinated against measles. [But those lines still exist today:](#)

line

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40) The number of cases of these diseases were all falling before vaccines.

This is commonly known as the “VACCINES DIDN’T SAVE US” argument, and it is 100% false. Take a look at this graph:



This is what was happening to *mortality* in the first half of the 20th century. It is clear that mortality rates were indeed falling since the turn of the 20th century to the point where the mortality was near 0 for most of these diseases, but that can be attributed to huge advances in medical science, including supportive care, antibiotics, mechanical ventilation, etc. So of course mortality of *everything* would improve. To illustrate, life expectancy in the US in 1900 was 47 years for a white man, and by 1950 it had increased to 65.6 (an improvement of over 28% in just 50 years).

But the number of cases of these diseases (ALL OF THEM) *did not fall* until the vaccines were introduced. Again, to illustrate:

polio measles

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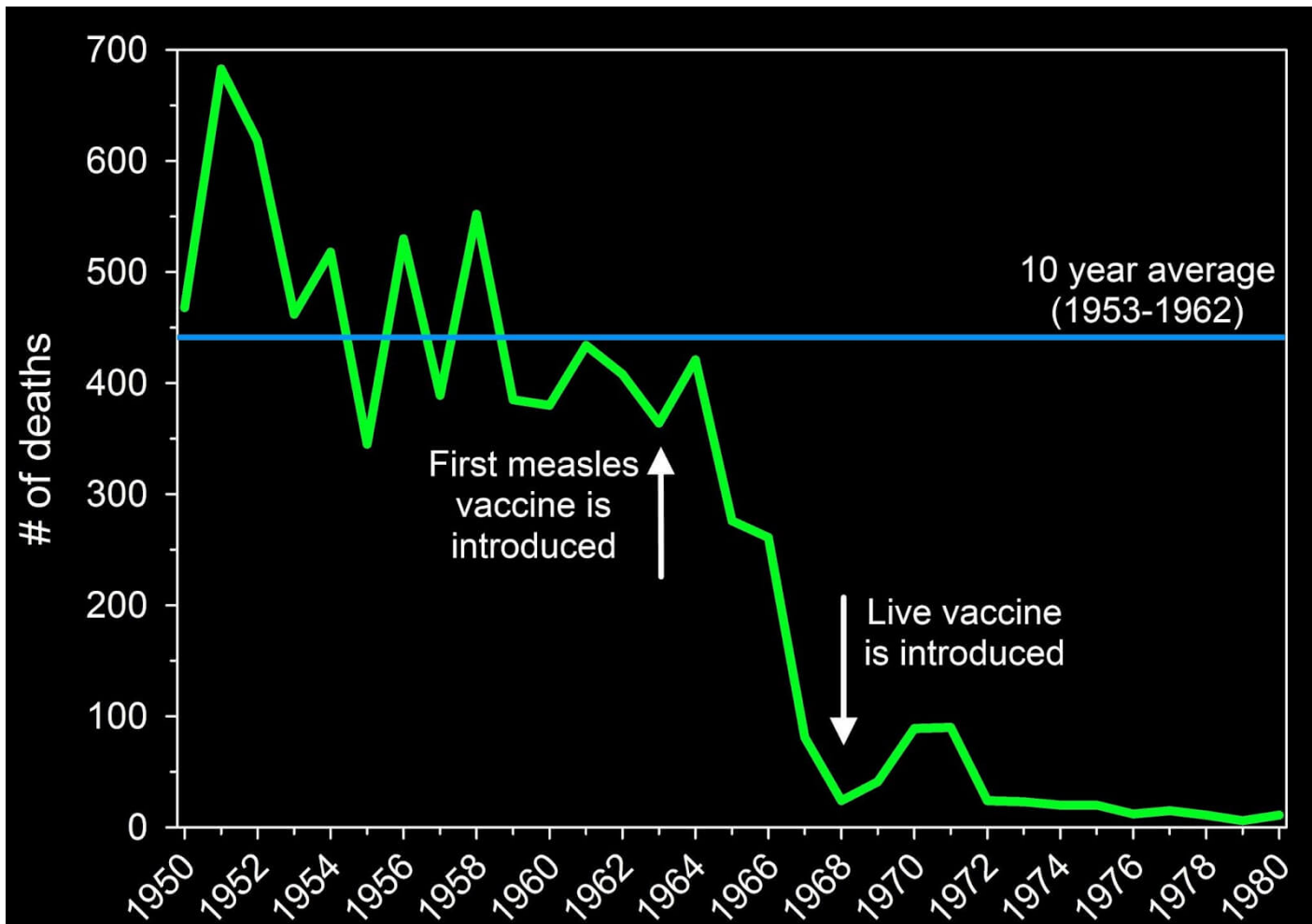
These are the disease rates of polio and measles, and you can once again plainly see that the rates DID NOT FALL until the vaccines were introduced. And as each vaccine was introduced, that disease's rate fell dramatically. It happened every time a new vaccine was introduced, right on schedule.

41) Clean water and sanitation caused disease rates to fall, not vaccines.

This is clearly not true because:

- diphtheria rates began to decline in the 1930's after the vaccine was introduced, and
- polio rates began to decline in 1955 when the vaccine was introduced, and
- measles rates began to decline in 1963 when the vaccine was introduced, and
- rubella rates began to decline in 1969 when the vaccine was introduced, and
- chicken pox rates began to decline in 1995 when the vaccine was introduced, and
- rotavirus rates began to decline in 2006 when the vaccine was introduced.

Furthermore, while the mortality graph sure makes it look like the mortality rate of these diseases was 0, it was not. Not remotely. Hundreds of children in the US still died every year of measles:



Notice this graph starts in 1950, after the mortality rate had dropped so close to 0 according to your graph. That “so close to 0” still translated to 400-500 dead children in the US every year. And once the vaccine was introduced, then *and only then* did it actually drop to 0.

42) Vaccines cause SIDS.

No they don't. You have this entirely backwards: vaccines reduce the risk of SIDS by 50%. This is based not just one one paper, not two, but a [meta-analysis of nine case-control studies](#) looking at the relationship between vaccination and SIDS. And it found that vaccination decreases the risk of SIDS by half.

Vaccines DO NOT cause SIDS. They never have.

43) SIDS is listed on the package insert as a potential side effect!

Oh, you must be talking about this?

sids

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This is an excerpt from the vaccine package insert which says, “Adverse events reported during post-approval use”. It also says “Because these events are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequencies or to establish a causal relationship”.

The vaccine insert is a legal document, and vaccine manufacturers are legally obligated to list every adverse event that has been reported, regardless of whether or not the vaccine has caused it. That’s also why you see “autism” on that list. It has been reported in children who have gotten that vaccine. But autism has also been reported in children who have *not* gotten that vaccine, though there is no legal document for that. The vaccine insert does not state, imply, or in any other way suggest that the vaccine caused it.

44) No one has died in the US of measles since 2003.

This is yet another ironic testament as to the effectiveness of the vaccine. Unfortunately, this is also false, since [a woman in Washington State died of measles-related complications in 2015](#), [two people died of measles in 2010](#), and [two people died of measles in 2009](#).

This also ignores the fact that around the world over 100,000 children still die of measles every year (see #16 above).

45) But over 100 people have died of the MMR since 2003, so more people die of the vaccine than the disease.

This “100” figure is derived from VAERS, which as you learned in #26 above is not designed to track that kind of data. So, there is no way to determine if this figure is even remotely true, though I highly doubt it is even close. There are about 4 million children born in the US each year, and since median vaccine coverage is 94.3%, that’s 3,772,000 children getting the measles vaccine each year. As we know the serious adverse event rate is around 1 per million doses, so that would be between 3 and 4 serious adverse events annually, and most children recover completely. Even if they all died (they don’t), that would be 16 years x 3.7 children = approximately 59 deaths, not 100. And that’s if they all died, which they most assuredly do not.

So, no.

46) Doctors even admit that vaccines are dangerous.

Do they? Which ones? How many of them? This is just another form of “Some people believe . . .” If I were to say, “I believe the sky is purple”, I could then logically go on to say “Some people believe the sky

is purple". Is the sky purple? Does that make the sky purple? Of course not, but some people believe it is, so that means it *might* be true! Except that it doesn't.

What you're saying is that *some doctors* believe it, or at least they say they do. These are fringe doctors who are members of fringe groups who believe fringe things. So the important question is, what other beliefs do these doctors espouse? If you look hard enough you can find paleontologists who believe earth is less than 10,000 years old (like [this guy](#) who has a Ph.D in paleontology from Harvard. Seriously). I will grant that there are a few doctors who are anti-vaccine, the most prominent and/or vocal being:

- Joe Mercola, DO, who also believes that sunscreen causes skin cancer, homeopathy can treat autism, and HIV does not cause AIDS; and who has an online store;
- Sherri Tenpenny, DO, who also believes an earthquake could cause California to fall off North America and sink into the Pacific Ocean, and who missed her entire third grade because she was too sick; and who has an online store;
- Toni Bark, MD, who also practices homeopathy, and who has an online store;
- Russell Blaylock, MD, who also believes in chemtrails, that aspartame causes multiple sclerosis, and that MSG is toxic to the brain; and who has an online store;
- Tetyana Obukhanych, PhD who is not a physician but does have a Ph.D in immunology, who believes that immunology has no evidence-based explanation for immunity due to vaccines, that vaccines compromise our "natural immunity", and that homeopathy works;
- Jack Wolfson, DO, who touts himself as a "holistic cardiologist", charges a \$2800 fee for an initial consultation, and who believes children should get measles, mumps, rubella, and chicken pox because it is "their right"; and who has an online store;
- Kelly Brogan, MD, who is also an HIV-AIDS denialist, advises diabetics not to take insulin, and who has an online store;
- Suzanne Humphries, MD, who believes homeopathy works, who believes pertussis can be treated with vitamin C, and who believes the bible is a reason not to vaccinate; but who does *not* have an online store

Yes, there are a handful of fringe doctors out there who say that vaccines are dangerous. But these are charlatans who are seizing on the very fear that brought you here to attract gullible people and make money. That's why these people almost invariably have online stores, and how Mercola brings in about \$10 million per year from his website.

Keep in mind that every single major medical association in the entire world supports vaccines. Every. Single. One. And if you've heard of the American Association of Physicians and Surgeons, despite their official-sounding name they're one of those fringe groups I mentioned who have advocated such beliefs as AIDS denialism and abortions causing breast cancer. Quacks, all.

47) Vaccines cause autoimmune diseases.

There are a few known associations of vaccines increasing the risk of certain autoimmune diseases, such as the flu vaccine and Guillain-Barré and MMR with immune thrombocytopenic purpura (ITP). And it makes sense that vaccines could hypothetically cause autoimmune diseases, since they are designed to

stimulate the immune system, and autoimmune diseases are disorders of that immune system. However, studies have shown that these are very rare. Using MMR and ITP as an example, there is an increased risk. However, 1) the risk with vaccines is lower than it is with measles infection, 2) the clinical course of ITP after vaccination is less severe compared to ITP after measles infection, and 3) [90% of children with ITP resolve completely within 6 months](#).

If you're curious about the actual risk, they only described 23 cases in 700,000 children. That's just 0.0033%.

As for other autoimmune diseases (like ASIA), these occurrences are [so fleetingly rare](#) that studying them is difficult exactly because of their rarity, and [some researchers do not believe ASIA even exists](#). An excellent review article can be found [here](#) which details pretty much everything I just said.

48) Vaccines cause seizures.

Febrile seizures are a well-known and relatively common side effect of vaccines, but they are also a well-known and relatively common side effect of many febrile illnesses. That's why they are called "febrile seizures" – it's the fever that causes them. They also aren't nearly as common as you may think – [this study](#) found a risk of 1 febrile seizure per 3,300 vaccinations even when multiple vaccines were given at the same time. Keep in mind that 3-5% of children experience a febrile seizure each year due to an infection (in other words *unrelated* to vaccines), so [a busy paediatrician seeing 500 infants each year would see one vaccine-related febrile seizure every 5-10 years](#).

And just like any other febrile seizure, the seizures associated with vaccination [do not cause or increase the risk of life-long seizure disorders](#). [And this long-term follow up study](#) of children who had febrile seizures showed no difference in academic performance compared to their peers.

Febrile seizures are terrifying to parents, make no mistake. But as scary as they look, they are benign.

49) Vaccines cause allergies, asthma, and eczema.

This myth is referring to the supposed epidemic of food allergies, peanut allergies, atopic dermatitis, etc. This myth is not, however, supported by actual data.

[This study](#) of thousands of children across 97 centers in 10 countries showed no evidence that any vaccine is associated with food allergies, airborne allergies, or eczema.

[This study](#) of over 1000 children found the exact same thing.

[This British study](#) of over 29,000 children found the exact same thing.

[And this study](#) of nearly 15,000 children across 5 countries found, once again, the exact same thing.

There are multiple studies of tens of thousands of children across dozens of countries around the globe which all show that vaccines are not associated with allergies, asthma, or eczema.

50) What about the Cutter Incident?

This is one of those terribly unfortunate tragedies in medicine that should never happen but still did. A batch of live polio vaccines made by Cutter Laboratories in 1955 were not properly inactivated, and at least 120,000 people received them before they were recalled, now known as the [Cutter Incident](#). This caused about 40,000 cases of mild polio, 56 cases of paralysis, and 5 deaths.

There are other medical tragedies, including the production and distribution of blood products tainted with HIV prior to the virus having been discovered, Dr. Mengele's horrific human experimentation during the Holocaust, and similar ghastly experiments on humans in Japan's Unit 731. But perhaps the most notorious is the 1932 Tuskegee Study, in which black men who were already infected with syphilis were knowingly not treated for the infection, even after penicillin was proved to treat it successfully in 1947. The investigators withheld both treatment and information about that treatment until a whistleblower finally blew the lid off in 1972. The fact that this continued for 40 years only compounds its utterly unethical nature, and it has fueled a deep distrust in the medical industry which continues to this day.

These occurrences are rare but terrible. There is absolutely no doubt that they should never happen. But they have, they did, and they still do. However, this is hardly a reason to argue against vaccination in general. Incidents like these should be taken as very difficult lessons from which we can learn and then prevent anything like them from ever happening again.

51) And the Simpsonwood meeting . . .

And here is where we start diving into Conspiracy Theory Land. This CDC conference ("Scientific Review of Vaccine Safety Datalink Information" actually happened in 2000. They reviewed the data regarding the possible link between thimerosal and autism and ultimately refuted any link, obviously. Enter Robert F. Kennedy, Jr, who wrote an article in 2005 (that was retracted by Salon) alleging the conference was intended to hide the evidence and that the lead author, Thomas Verstraeten, altered it.

Well there are a few problems with this – first, the entire transcript of the meeting is freely available (for example [here](#)) (warning, it's *really* long), and there is no evidence of any conspiracy to cover up or change any evidence. Second, the U.S. Senate Committee on Health, Education, Labor and Pensions [reviewed the entire affair](#) and found no evidence of any impropriety by either Dr. Verstraeten or the CDC. In fact, they concluded "Instead of hiding the data or restricting access to it, CDC distributed it, often to individuals who had never seen it before, and solicited outside opinion regarding how to interpret it".

52) We just need safer vaccines.

I wish I could just say "Obviously" and leave it at that. We need safer *everything* – safer cars, safer bicycle helmets, safer sports gear, safer lawn mowers, safer lithium batteries, safer home wiring, safer food, safer schools. Everything around us should be safe, and everything around us (for the most part) has been

designed specifically to be as safe as possible with the available technology. As safer technology evolves (think seat belts followed by air bags followed by *even more air bags*), products get ever safer. The same goes with vaccines. As vaccine science has evolved, the number of antigens in vaccines has decreased dramatically even as the number of vaccines given has increased:

jvp b r

And as the science continues to evolve, the products will continue to become safer.

53) Measles protects against cancer.

This silly claim is based on [this one article](#) (I can't even call it a study) from 1998 in which anthroposophic practitioners (I can't even call them doctors) in Switzerland conducted a questionnaire and supposedly found that the number of febrile illnesses (ie measles, mumps, rubella, chicken pox, pertussis, etc) was inversely proportional to the risk of non-breast cancer. Why is this such a silly claim? To start, anthroposophic medicine is an alternative practice based on the occult, homeopathy, and other assorted pseudoscientific nonsense. As an example, Rudolf Steiner, one of the founders of anthroposophic medicine, believed 1) that the sex of a baby was determined at conception by the alignment of the stars, and 2) that the heart was not actually a pump, but that instead blood circulates via its own "biological momentum". If the founder of such a cult (I can't even call it a form of alternative medicine) can't even understand concepts as (relatively) simple as genetics and the circulatory system, I can hardly expect his devout followers to understand something as complex as running a scientific study.

And this was in fact not a scientific study. It was merely a survey of anthroposophic practitioners with all the inherent confirmation bias and observation bias one would expect. This is similar to the Bachmair questionnaire where only home-school mothers were surveyed by a homeopath. It begins with a biased premise and just goes off the rails from there.

The main reason this article is completely worthless is that it has not been replicated despite 20 years of opportunity to do so. This sort of information should have elicited an "AHA!" reaction from the medical world. Instead, there has been nothing. No replication, no confirmation, nothing. It simply isn't true.

54) People who get vaccines shouldn't be around sick people because they shed.

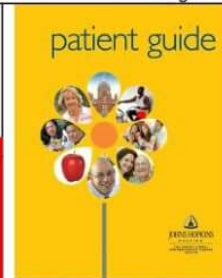
You may have seen this graphic from Johns Hopkins:

Johns Hopkins warns that the **vaccinated** are a **threat to the immunocompromised**

Page 1 of 4



The Johns Hopkins Hospital Patient Information



Care at Home for the Immunocompromised Patient

What can I do to prevent infection?

- Hand washing is the **best way** to prevent infection.
- Carry hand sanitizer with you at all times.
- Wash with soap and water or hand sanitizer
 - before and after you use the bathroom
 - before and after preparing or eating food
 - after touching pets or animals
 - after contact with someone who has an infection such as a cold or the flu
 - after touching surfaces in public areas (such as elevator buttons, handrails and gas pumps)



Should an IC child really be in the uncontrolled environment of a public school or other public spaces?

Do I need to wear a mask?

- Wear an N95 respirator mask when you travel to and from the hospital, when you are in the hospital, within two football fields of construction or digging, and in any public place.
- Close all car windows and turn on the re-circulate button of your ventilation system.
- Avoid crowds if possible. An area is crowded if you are within an arm's length of other people.
- Avoid closed spaces if possible.

Can I have visitors?


- Tell friends and family who are sick, or have recently had a live vaccine (such as chicken pox, measles, rubella, intranasal influenza, polio or smallpox) not to visit.
- It may be a good idea to have visitors call first.
- Avoid contact with children who were recently vaccinated.






Are there any precautions I


- Do not take aspirin or aspirin-like products (such as Advil™, Motrin™ or Excedrin™) unless told by your doctor.
- You should wear a medical alert bracelet that identifies you as a cancer patient or bone marrow transplant patient at risk for bleeding or infection.
- **Keep a current medication list with you at all times.**
- Do not take any herbal products.
- Avoid grapefruit juice, which interacts with many medications.


Are schools currently notifying IC families when fellow students have been recently vaccinated with live viruses?

This was indeed the recommendation by Johns Hopkins as a precaution prior to actual information being gathered. However, this issue has now been extensively studied, and Hopkins has revised their statement:

**Vaccine Calculator** ❤️ @VaxCalc · 5 Mar 2015
.@HopkinsMedicine tells cancer patients: Avoid contact with children who were recently vaccinated hopkinsmedicine.org/kimmel_cancer_...

 6  24   10 

**JohnsHopkinsMedicine** ✓
@HopkinsMedicine

 Follow


Replying to @VaxCalc

@VaxCalc Please see below. This is not what we are telling patients.

The resource referenced (which is no longer on our site) did not reflect Johns Hopkins' most up-to-date recommendations. We have updated our patient education materials to reflect current recommendations, which note that bone marrow transplant and other patients immunocompromised due to cancer treatments need not restrict exposure to people who have recently received a vaccine.

RETWEETS
27

LIKES
20



11:59 AM - 5 Mar 2015

The recommendation now is “Close contacts of patients with compromised immunity should not receive live oral poliovirus vaccine because they might shed the virus and infect a patient with compromised immunity. Close contacts can receive other standard vaccines because viral shedding is unlikely and these pose little risk of infection to a subject with compromised immunity.”

There are rare reports of various live virus vaccines shedding:

[A child vaccinated with rotavirus vaccine \(which sheds in stool\) infected his unvaccinated older sibling, who did not require admission to hospital and recovered.](#)

[A child vaccinated with MMR came down with a mild case of vaccine-strain measles over a month after vaccination. All symptoms resolved within 5 days.](#)

In short, yes some live virus vaccines shed as these case reports prove. However, the cases are milder than wild-type infections, and they are extremely rare. Millions of doses of these vaccines are given every year, so this argument only strengthens the argument that vaccines are extremely safe.

55) The flu shot has never been tested for its ability to cause cancer.

You have probably seen this graphic:

flu

Image not found or type unknown

Here is the reality – all vaccines (ALL OF THEM) go through pre-clinical toxicology testing for safety,

including mutagenicity and carcinogenicity. But the problem with the flu shot is that the component for each year's shot is different, so each year's shot cannot possibly be tested prior to being used. But the data from several decades' worth of flu vaccination is that it does not cause cancer.

56) Bill Gates said vaccines are being used for depopulation.

This is the misinterpretation that just won't die. This is NOT what he said. Here is the quote taken WAAAAAAAAAAAAAY out of context:

First, we've got population. The world today has 6.8 billion people. That's headed up to about nine billion. Now, if we do a really great job on new vaccines, health care, reproductive health services, we could lower that by, perhaps, 10 or 15 percent

While that may seem damning, he wasn't talking about reducing population, he was talking about reducing population *growth*. Mr. Gates was referring to ways to reduce the creation of carbon dioxide, and one of those is to reduce the rate of *population growth*, not to reduce population. THAT is what he meant by "lower that by 10-15%". [He has said repeatedly](#) that as vaccination rates go up in developing nations, infant mortality goes down, and as more children survive, [parents don't feel the need to have 8 or 10 children anymore](#) (emphasis added):

"A surprising but critical fact we learned was that reducing the number of deaths actually reduces **population growth**. [...] Contrary to the Malthusian view that population will grow to the limit of however many kids can be fed, in fact parents choose to have enough kids to give them a high chance that several will survive to support them as they grow old. As the number of kids who survive to adulthood goes up, parents can achieve this goal without having as many children."

and

"When a mother can choose how many children to have, her children are healthier, they're better nourished, their mental capacities are higher—and parents have more time and money to spend on each child's health and schooling. That's how families and countries get out of poverty. This link between saving lives, a lower birthrate, and ending poverty was the most important early lesson Melinda and I learned about global health."

There is no eugenics conspiracy, no depopulation, no agenda 21, and no conspiracy to decrease the world population to 500 million.

57) Vaccines are contaminated with harmful particles.

This myth refers to Antonietta Gatti's rather [silly evaluation](#) of so-called contamination of vaccines with nanoparticles which backfired. First, you'll notice the paper is on Medcrave, not Pubmed. That should be a huge red flag, because Medcrave is a for-profit open-access predatory publisher. As an example, [this writer](#) had a completely fictitious case report accepted for publication, completely with supposed peer-review, for \$799.

Regardless, Gatti and her partners found varying numbers of inorganic particles when they evaporated 44 samples of 30 different vaccines and looked at them under an electron microscope. And they found tiny particles of various substances including tungsten, gold, aluminum, etc, ranging from two to 1821 particles per 20 microlitres of fluid. While that seems scary, that is an incredibly small amount of these substances compared to the amount of the vaccine, which is itself very small.

They didn't use any controls, so there is no telling how many of these particles would be found in tap water or sterile saline or distilled water or anything else. The bottom line is that *nothing* is completely pure, but this study actually shows that vaccines are very, very pure.

58) Gardasil is dangerous.

The usual supposed dangers I hear about Gardasil are autoimmune disorders, demyelinating diseases (like multiple sclerosis), and miscarriage. However, there are myriad safety studies of Gardasil showing it to be very safe. [Here is a review](#) of 109 safety studies across six countries including over 2.5 million subjects which showed only an increased risk of local injection site reactions (pain, redness, swelling), but no increased risk of any of the various things supposedly attributed to HPV vaccines, including demyelinating diseases and neurological syndromes.

And [here is a study](#) of nearly 1 million girls in Denmark and Sweden which shows no increased risk of autoimmune, neurological, or thromboembolic events.

[And here is a Cochrane review](#) of 26 studies which found no increased risk of serious side effects or miscarriage.

The bottom line is that Gardasil is very safe. Oh, and it [prevents cancer](#).

59) Gardasil causes premature ovarian failure.

Sorry, I left that out the last one. There are case reports of teenage girls developing primary ovarian insufficiency after HPV vaccination. But these are mere anecdotes, and even before HPV vaccination there was a 22/100,000 rate of primary ovarian insufficiency, so it has always existed. [But this study](#) of nearly 200,000 girls showed no increased risk of primary ovarian insufficiency after HPV vaccination.

60) Herd immunity doesn't exist.

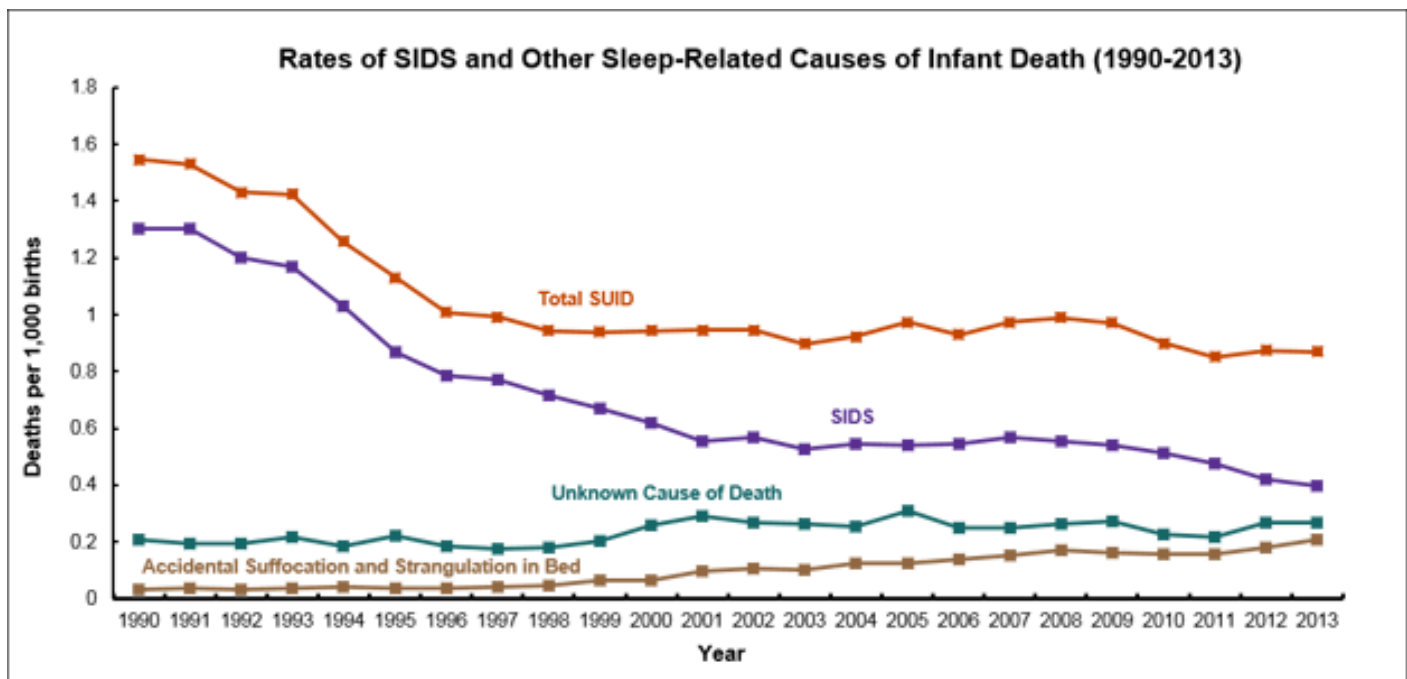
Sure it does. It's been demonstrated numerous times, but I think one of the best examples was [this study](#) from Burkina Faso, in which nearly 90% of the population at risk was vaccinated for meningitis (*Neisseria meningitidis* serotype A, or NmA), and 13 months later when the subjects (both the vaccinated and unvaccinated) were resampled, exactly *ZERO* still carried NmA. As the authors conclude, "The disappearance of NmA carriage among both vaccinated and unvaccinated populations is consistent with a vaccine-induced herd immunity effect".

That's just one example. There are many others.

61) X didn't exist before vaccines.

I've seen various claims here, but the most common ones are autism (of course) and SIDS. Leo Kanner first described autism in 1943 before all but two vaccines (smallpox and diphtheria) were invented (diphtheria antitoxin was invented in 1901, and Hans Asperger was lecturing about a group of children with autism in 1938, but the vaccine didn't come out until the 1920's). And Eugen Bleuler first used the term "autism" in 1908. That is a very long-winded way of saying yes, autism actually existed before vaccines. Except smallpox, but I haven't seen a single person arguing that the smallpox vaccine causes autism. Probably because it doesn't.

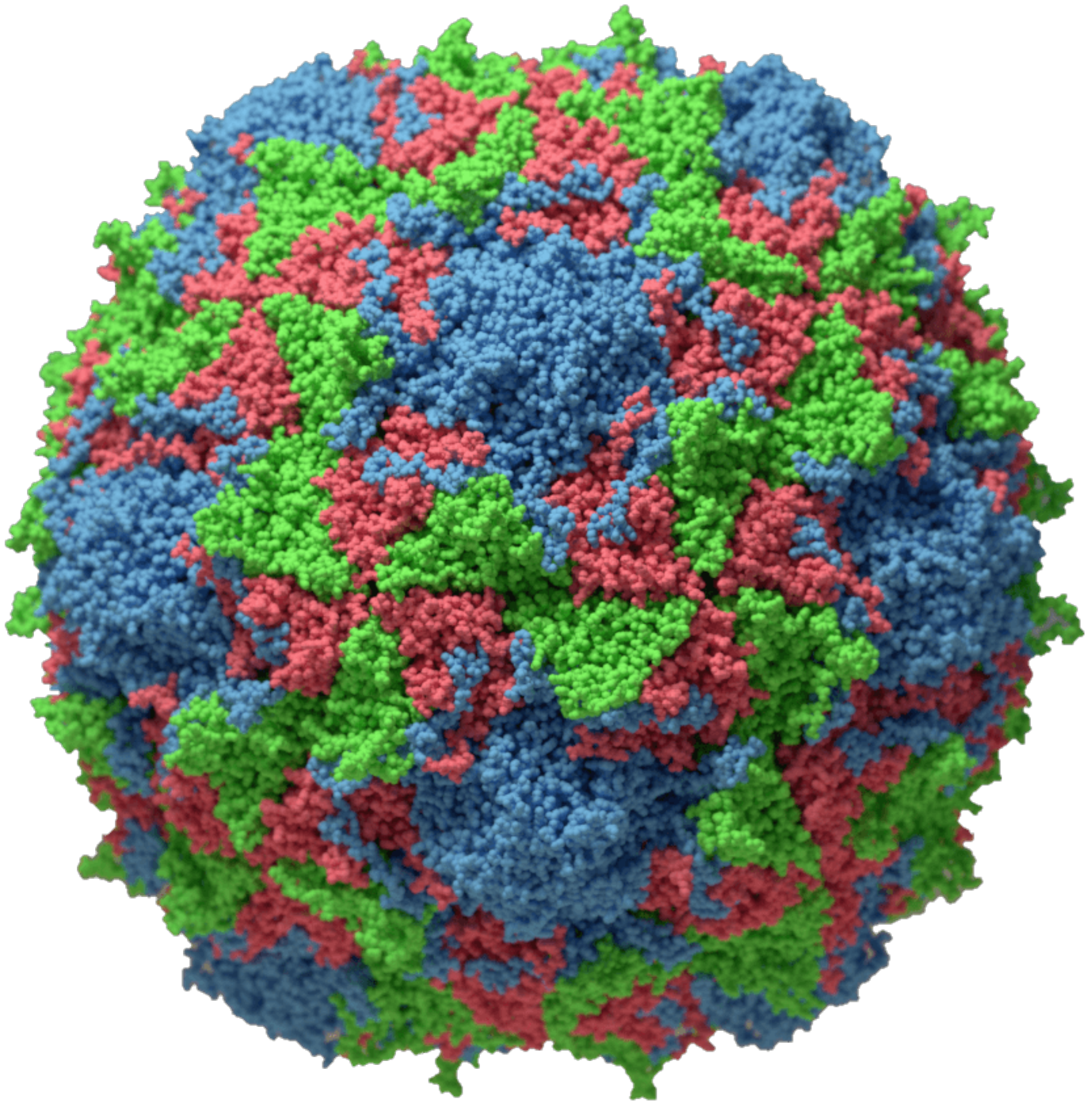
As for SIDS, "crib death", or "cot death", the term was first coined in 1969. However, there are many descriptions of sudden infant death all throughout history. For example, this researcher found evidence of SIDS in the 1800's. [And several examples of SIDS as far back as the Middle Ages and even from the bible \(if you choose to believe it\) can be seen here](#). Besides, the rate of SIDS has been dropping since it was discovered that putting infants on their backs decreases the risk.



Do you know what else decreases the risk of SIDS? Right, vaccines.

62) Polio never went away, it was just renamed transverse myelitis or GBS or acute flaccid myelitis.

Take a look at this:



That's a polio virus. Polio is a viral disease, and all those other things are not (as far as we know). When polio virus is isolated from a patient with a paralytic disease, it is then called polio. However, the virus cannot be isolated from a patient with Guillain–Barré syndrome, because it does not cause Guillain–Barré syndrome. It cannot be isolated from transverse myelitis patients, because it does not cause transverse myelitis. It cannot be isolated from acute flaccid myelitis patients, because it does not cause acute flaccid myelitis. While we don't know what does cause acute flaccid myelitis, we do know it is *not*

polio.

There are several different, distinct paralytic diseases, and they all present differently. That's why they are different, distinct diseases. Polio is polio, and not polio is not polio.

63) There have been measles (or pertussis or mumps) outbreaks in highly vaccinated populations.

Yes there have, because no vaccine is 100% effective. All this does is underscore the need for both 1) better vaccines (especially pertussis), and 2) herd immunity.

However, far more common are outbreaks (and subsequent deaths) in unvaccinated (or undervaccinated) populations. Looking back at the recent Disneyland measles outbreak in 2015, 45% of the patients from California were unvaccinated while only 7% were fully vaccinated (the rest were either undervaccinated or had an unknown vaccination status).

An even sadder example is the 2019 Philippines outbreak, with nearly 15,000 cases and over 230 deaths (so far as of this writing), 65% of whom were unvaccinated.

Another example is the current outbreak of measles in Ukraine, with 24,000 cases and 9 deaths

And an even more tragic example is the ongoing outbreak of measles in Madagascar, where they have had over 82,000 cases and about 1000 deaths, two-thirds of whom were unvaccinated.

64) Squalene is dangerous.

Squalene is not an adjuvant by itself, but it is when emulsified with surfactants. It is only added to certain flu vaccines in Europe and one for seniors in the US, so it is not present in any childhood vaccine. The reason for the fear is the supposed presence of anti-squalene antibodies found in American soldiers with the so-called Gulf War Syndrome.

A few problems with this:

1. Squalene is a naturally occurring substance, and your liver is making it right now as you read this;
2. Anti-squalene antibodies [have been found in people who have never receive any squalene-containing vaccine](#);
3. Squalene [was studied and found *not* to cause anti-squalene antibodies to be created](#).

This is just another example of something that sounds scary but is not really scary at all. Especially since it is not found in any childhood vaccine.

65) Peanut oil is used as a vaccine adjuvant and is causing the peanut allergy epidemic.

A peanut oil adjuvant was [tested in the 1960's](#), but it was never approved for use and is currently found in exactly 0 vaccines anywhere on the planet. While it is (probably) true that peanut (and other food) allergies are increasing in many countries, it isn't vaccines causing it, because much like unicorns, peanut oil adjuvants do not exist.

What is causing it is (probably) the attempted environmental sterilisation that too many parents undertake to keep their kids "safe" from germs. Unfortunately this practice appears to be preventing the normal development of the immune system and is increasing the risk of food allergies. In case you think I'm just pulling this out of thin air (which I admittedly was when I started talking about it well over a decade ago), [recent evidence fully supports this hypothesis](#).

66) Measles virus doesn't even exist.

This mind-bending claim comes from ultra anti-vaccine advocate Stefan Lanka, who bet 100,000 euros that no one could prove the measles virus exists. Of course someone (Dr. David Bardens) proved him wrong beyond any reasonable doubt, and a court ordered Lanka to pay up. But the decision was reversed on appeal, judging that the evidence Bardens provided had to live up to Lanka's expectations. Bardens could probably have invented a machine to [embiggen](#) the virus to 2m in diameter and shoved it in Lanka's face, but so deeply entrenched are his rabid beliefs that he would have still denied its existence.

Yeah, measles virus exists. Here it is.

measles

Image not found or type unknown

67) We never had all these vaccines when I was a kid, I got all these diseases, and I'm fine.

This is a perfect description of survivorship bias, because there are literally millions of other people who contracted these exact same diseases and are now dead because of them. No vaccine-preventable disease is anywhere close to 100% fatal (except rabies), so of course most people who got them survived unscathed. This doesn't make the diseases benign (see #16), it just makes you one of the majority who made it. Not every kid is as lucky.

68) Polio was caused by DDT, not poliovirus.

This is just an example of germ theory denialism. It is true that DDT was used to try to prevent the spread of polio, because at the time (mid 1940s) it was incorrectly thought that polio was transmitted by insects like mosquitoes or flies (it is actually faecal-oral).

The big problem with this hypothesis is the timing. The first polio epidemic in the US, for example was in 1894, and the polio virus was discovered in 1908. DDT, on the other hand, was invented in 1874 but was not discovered to be an insecticide until 1939, well after polio was harming children.

69) There hasn't been a vaccine safety study in 30 years.

Robert F. Kennedy, Jr is the main celebrity promoting this claim, which has been wildly twisted from its

origins and stems from a 1986 US law which, among other things, required that HHS report vaccine safety studies to congress. But somehow even though the reports were done, they were not all properly filed. Let me repeat – the studies were done, they just weren't properly reported. In fact, [here is one](#). And [here](#) is a list of safety studies by year.

Do not misunderstand me, the law was not followed here, and that's not a good thing. I don't know why the reports were not properly filed, and I don't know why HHS didn't present the information to congress as they were supposed to. Regardless, safety studies have been done, task forces have regularly met and reported on vaccine safety, vaccine safety oversight committees have been formed and reported to HHS, the [Clinical Immunization Safety Assessment](#) project was started in 2001, etc etc etc.

The evidence shows that vaccines are safe, that evidence just wasn't reported properly to congress. That does not mean it does not exist.

70) MMS can cure autism.

No. It. Can. Not. There is literally no evidence to support such a ludicrous claim, so I can't even cite anything refuting it. MMS is [chlorine dioxide](#) (an industrial bleach), and some people give this either orally or rectally to their children to supposedly cure autism. This is nothing short of child abuse.

71) I'm not anti-vaccine, but . . .

If you start a statement with "No offence, but . . .", you can be assured that the next thing out of your mouth will be offensive. By the same token, any sentence starting with "Not to sound racist, but . . ." is guaranteed to be followed by something racist. Similarly, if you start with "I'm not anti-vaccine, but . . .", there is at least a 99.9974% chance (I calculated it) that yes, you are repeating anti-vaccine rhetoric.

Please do not claim to be "pro safe-vaccines", because vaccines are already safe. Please do not claim to be "pro medical autonomy", because no one is forcing you to vaccinate yourself or your children. And please do not claim to be "pro informed consent", because informed consent is already done prior to vaccination (I have signed these forms myself when my children got their shots).

72) Vaccines are against my religion.

Unless you happen to be a Christian Scientist or in the Dutch Reformed church, no they aren't. There are exactly zero major religions on the planet that have any doctrine, law, or rule against vaccines. [This review article](#) lists all major religions, including Christianity, Islam, Buddhism, Hinduism, and Judaism. Not even Catholicism forbids vaccines, despite some of them being grown using cell lines from an aborted foetus. According to the National Catholic Bioethics Center, if there is no alternative, "One is morally free to use the vaccine regardless of its historical association with abortion. The reason is that the risk to public health, if one chooses not to vaccinate, outweighs the legitimate concern about the origins of the vaccine."

Besides, Christian Scientists believe that disease can be cured through prayer and the Dutch Reformed church believes vaccines interfere with “divine providence”, whatever that means. So no, your religion does *not* outlaw vaccines.

73) Vaccines are injected directly into the bloodstream.

There are exactly ZERO vaccines that are injected intravenously. All vaccines (other than oral polio and intranasal flu) are administered into the muscle (intramuscular), skin (subcutaneous), or dermis (intradermal). There are, however, lots of things injected directly into the bloodstream: saline, anaesthetics, pain medicine, antibiotics, anti-convulsants, sedatives. You know those vitamin drips that are so in these days? Yup, directly into the bloodstream. Is anyone demanding to know what’s in the regenerative vitamin B infusion at the vitamin bar? I didn’t think so. Regardless, vaccines are not given IV. Ever.

If you are getting a vaccine directly into your bloodstream, then whoever is giving it to you is making a mistake.

74) Vaccines are unavoidably unsafe.

Yes they are. All “unavoidably unsafe” means is that there is no way for the manufacturer to make them 100% safe and prevent any side effect.

This term comes from the [Restatement \(Second\) of Torts](#), which was written by the American Law Institute in 1965, 1977, and 1979. In it, an “unavoidably unsafe product” is described as “an apparently useful and desirable product, attended with a known but apparently reasonable risk.” You can read a thorough explanation [here](#).

Medicines have side effects. This is a well-known fact that is not disputed. Vaccines are medicines. This is also a well-known fact that is not disputed. Therefore, vaccines will have side effects, including serious side effects such as anaphylaxis. There is no way to predict who will develop such a reaction, so there is no way to make the vaccine safer in that regard. However, as we have learned above the risk of such serious side effects is about 1 per million doses, so the benefits far outweigh these risks.

75) Vaccines are just ways to make money.

Vaccines are made by pharmaceutical companies, and pharmaceutical companies are designed to make money. This is not even debatable, because it is fact. However, according to the World Health Organisation vaccines comprise less than 2% of pharmaceutical companies’ revenue. These companies make far more with blockbuster medicines like Lipitor or Viagra. Vaccines, on the other hand, are just not big money makers.

Doctors don’t really profit from vaccines either. In the UK, doctors don’t get paid any extra for giving vaccines. In the US, [studies have shown](#) that paediatricians make little-to-no money giving vaccines. And that “\$400 bonus” you’ve heard about? That’s not a bonus per shot, it’s a bonus given to a doctor by an

insurance company for their entire cohort of patients if they immunise above a certain percentage. I'm sure you've seen the "\$400 per eligible member" line on the insurance company's form, but the eligible member in this case is the *doctor*, not the patient. They get one bonus. That's it.

But why? Simple – money. It is far less expensive for the insurance companies to prevent a disease than to pay for treating it, and just like pharmaceutical companies, insurance companies are also in the business of making money, not paying for medical care.

Take for example [this case of tetanus](#) in an unvaccinated 6-year-old boy who spent 8 weeks in hospital at a cost of over \$811,000. On the other hand, a tetanus shot costs \$64 in the US, £52 in the UK, and \$0 in Australia.

Whew. That's all I have. I truly hope anyone makes it this far, and if you have, know that I truly appreciate it. I hope I've perhaps busted some myths, dispelled some fear, and helped you to learn something.

If you are still on the fence or have questions about vaccines, please comment below.

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