

# A Special Interview with Barbara Loe Fisher

## By Dr. Mercola

**DM:** Dr. Joseph Mercola

**BF:** Barbara Loe Fisher

### Introduction:

**DM:** Welcome everyone. This is Dr. Mercola. Today I am joined by Barbara Loe Fisher who is one of the co-founders and the President of the National Vaccine Information Center which is a pioneering group over the last 30 years that is advocating informed consent and vaccine safety. We're delighted to have her today.

Today, we have a very exciting topic to discuss which is herd immunity as it specifically relates to pertussis but this could be an example of herd immunity for pretty much any vaccine but we're going to focus on pertussis because that's a really easy one.

The reason we're talking about this is that there was an interesting study published by the Investigative Newsource which is formally known as the Watchdog Institute. They are a non-profit institute out of San Diego. They published a study that was done by the Chief of Infectious Disease of one of the largest health organizations in the United States. It's a very well done study.

Barbara, you are here today to tell us how this relates to this concept of herd immunity who some of us in this field are referring to the concept of unicorn herd immunity. That is because unicorns don't exist just like herd immunity is another flawed fantasy concept. Thank you for coming and enlighten us about this incredible study.

**BF:** It's a preliminary study but it's a very important signal to everyone who believes that if you get more and more pertussis shots, DTaP or Tdap shots, that you actually can control pertussis. The fact is that what this preliminary study showed was that pertussis vaccine only lasts for protection about three years. Three years – that's a very short shelf life for the effectiveness of pertussis vaccine.

**DM:** Let me just interject there, the reason that we're focusing on this and the primary importance of this is this is probably the foundational concept that people who promote vaccines use to endorse mandating vaccines for everyone is this concept of herd immunity.

**BF:** Vaccine induced herd immunity. That's right because the original concept...

**DM:** Good distinction. It's true. The original concept was about it.

**BF:** The original concept of herd immunity is that when a population experiences the natural disease and childhood diseases that meant the childhood population experience certain childhood diseases, natural immunity would be achieved – a robust, qualitatively

superior natural herd immunity within the population that would then protect other people from getting the disease in other age groups.

**DM:** And this is a well documented proven scientific fact.

**BF:** Right. It's the way infectious diseases...

**DM:** No one would dispute this.

**BF:** No because infectious diseases historically – I'll just take influenza for example. When you have enough circulating influenza of a certain strain in a population, the population achieves at some point a herd immunity effect. Because enough people have experienced it, they are protected naturally and then that protection confers protection in other people.

But the vaccinologists have adopted this idea of vaccine induced herd immunity. The problem with it is that all vaccines only confer temporary protection. At least the vaccines that we have been using only confer temporary protection. Pertussis vaccine is one the best examples. Whole cell pertussis, DPT vaccine was used since the late 1940s universally in our country.

**DM:** And it's still used today in some areas of the world.

**BF:** In many areas of the world whole cell DPT vaccine is still used. The problem with that whole cell pertussis vaccine it was extremely reactive. It caused brain inflammation, encephalopathy, many different kinds of problems because it contains pertussis toxins one of the most lethal toxins known in bioactive form endotoxin which can cause shock and collapse. Also, that vaccine contained mercury preservatives, contained aluminum adjuvants etc.

The whole cell pertussis vaccine was a pretty crude vaccine. It was the vaccine that hurt my son and it was the vaccine that parents in the 1980s, my organization and other parents, lobbied to get replaced by a less reactive purified DTaP vaccine, acellular pertussis vaccine which is a split cell pertussis vaccine.

However, when you look at effectiveness rather than risks just look at the effectiveness of either the whole cell or this acellular pertussis vaccine what you find is that there is a lot of problems with extended vaccine induced immunity. So you have a very short shelf life basically. What is the reason for that? Pertussis vaccines have been used for about 50 to 60 years and the organism has started to evolve to become vaccine resistant.

I can read you just from one study that shows – the results of one study looking at what is the pertussis organism about *B. pertussis*. Results showed that the progressive gene loss occurred in finish *B. pertussis* strains isolated during a period of 50 years and confirmed that *B. pertussis* is dynamic and continuously evolving suggesting that the

bacteria may use gene loss as one strategy to adapt to highly immunized populations because you know what, every life form wants to live, wants to survive.

**DM:** It's a universal principle.

**BF:** Universal principle. Viruses and bacteria are no exception. When you put a pressure on a virus or bacteria that is circulating with the use of a vaccine that contains a lab altered form of that virus or bacteria, it doesn't seem that it would be illogical to understand that that organism is going to fight to survive, it's going to find a way to adapt in order to survive.

I think that this is not something that's really understood generally by the public that vaccines do not confer the same type of immunity that natural exposure to the disease does.

**DM:** But the vaccine professionals would like you to believe that it's the same.

**BF:** Yes.

**DM:** But it's not.

**BF:** No.

**DM:** They are two different types of immune responses.

**BF:** Right. And in most cases natural exposure to disease would give you a longer lasting more robust qualitatively superior immunity because it gives you both cell mediated immunity and humoral immunity. Humoral is the antibody production. The way that you measure vaccine induced immunity is by how high are the antibody titers. How many antibodies do you have basically.

But the problem is the cell mediated immunity is very important as well. Most vaccines evade cell mediated immunity and go straight for the antibodies which is only one part of immunity. That's been the big problem with the production of vaccines. All along has been this idea how do you induce both cell mediated innate immunity and humoral or learned immunity, antibody immunity.

I think that it's unfair and absolutely scientifically incorrect to blame pertussis outbreaks in California or anywhere else in the country on unvaccinated people because the truth is that person coughing next to you in the bus who has B. pertussis may be vaccinated or unvaccinated.

In fact this Watchdog Institute took a look at whooping cough outbreaks in California in 2010 and what they came to the conclusion was...

**DM:** This was in the news last year. It generated quite a bit of controversy and pressure for mandating these vaccines under the guise of herd or unicorn herd immunity.

**BF:** Right. What this group found was when they looked at the immunization status of the people who got pertussis in those pertussis outbreaks they found that the majority of them have been vaccinated.

So the whooping cough outbreaks in California – again, you can be vaccinated and still have whooping cough and you won't even potentially know that you have whooping cough if you're an adult because you may not have the whoop. You may just present with a really bad cough. What they are saying is this is a justification for giving more vaccines. Is that logical if the organism has evolved to become vaccine resistant?

If you look in the medical literature you find is that parapertussis which was never covered in either the whole cell vaccine, DPT, or DTaP – parapertussis is on the rise. Why would that be true? It imitates pertussis. It seems to be milder than B. pertussis but it imitates the same symptoms of pertussis. It's a respiratory infection.

Why would parapertussis be on the rise? Probably for the same reason that there is gene loss in the B. pertussis and that is you have strains that are going to come in and be more prevalent when you are trying to suppress another kind of strain in this case B. pertussis.

Nature has a way of adapting to the pressures that are placed upon it.

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I don't understand why there is not more recognition that vaccines are not the only way to stay healthy or to prevent disease and infection and you have talked about this for years about the way that you really achieved true health is not a pill or a vaccine.

**DM:** No. It's just by following well documented ancestral health practices that have been done for many generations such as exposing a good portion of our skin to the sun so that our vitamin D levels will go up which is profoundly important and staying away from processed foods and exercising. They are not profoundly complicated or complex strategies but they are very effective at reducing your likelihood of acquiring these infections.

It seems like there is an enormous amount of professional arrogance to think that we know in our limited intellectual understanding of the situation that we can provide better alternatives and options in these natural lifestyle approaches. Let me give you a few examples of that.

Everyone can understand that antibiotics are used on a regular basis. Certainly, they are useful and can save lives but there are many times as a result of these antibiotics

and we just see that there is these pressures that cause these bacteria to evolve and develop resistance to the point where we have many strains of bacteria that are just about resistant to every known antibiotic. It's not the ideal way to approach a situation.

Similarly, we have pressures from genetically modified foods such as soybeans where they are engineered to develop resistance against conventional weed killers. So they are putting a massive amounts of weed killers on soybean crops as a result now we have super weeds that are resistant to just about every known herbicide. We're creating more problems that we're solving.

Interestingly, if we go back to the original study that we discussed at the beginning of this video is that was the chief of infectious disease who published this study. He was quoted as saying that when he actually looked in his evaluation in these outbreaks that the largest percentage of people who develop the disease actually were vaccinated.

I believe you had a similar experience when you did your analysis. Can you discuss about the study that you did previously.

**BF:** The reason I was so interested in the Watchdog Institute's 2010 report on the fact that most of the whooping cough cases in California were fully vaccinated was that I had done a similar report in 1986. What had happened then was in 1985 the American Academy of Pediatrics put out a press release saying there were whooping cough outbreaks in eight states in the United States and they blamed it on unvaccinated children.

**DM:** Of course. A marvelous opportunity.

**BF:** That's right. I thought I'm going to go in and take a look at exactly what those whooping cough outbreaks look like. Back then we didn't have the internet. I had to write letters to the heads of the health departments in the different states. I asked them for information on how many of the whooping cough cases had been culture confirmed which is the highest quality confirmation is culture.

**DM:** The most accurate way to do it.

**BF:** The most accurate way. The second is fluorescent antibody which is a blood test. And then the third category which is an interesting category epidemiologically linked. What does epidemiologically linked mean? It means the person has a cough and they probably came in contact with someone who had whooping cough. They just sort of assumed that they have whooping cough. That's epidemiologically linked.

**DM:** Somewhat similar to the definitions that the CDC and the World Health Organization has used in the swine flu epidemic when they classified people having swine flu as anyone who had a cough or cold.

**BF:** Respiratory infection that's right.

**DM:** No serological confirmation or blood test to confirm it just this epidemiological association.

**BF:** That's right.

**DM:** It's insane.

**BF:** Anyway, so I got the letters back and they gave a breakdown and I also asked how many have been vaccinated and how many doses have they received of pertussis vaccine, DPT vaccine. It was fascinating. I made a report that I actually presented to the Centers of Disease Control, the Advisory Committee on Immunization Practices. It was presented after we actually held a demonstration in front of the CDC on May 12<sup>th</sup> 1986 about the pertussis vaccine risks. Our theme then was 'You don't know.' You don't know how many kids are being hurt.

But I also said, you don't know how many kids actually have pertussis who have been vaccinated. Because what I found in '86 in those eight states were that more than half had been vaccinated and in some cases more than 80% had DPT shots. I immediately concluded the vaccine was not as effective as they were saying it was. In 2010, 25 years later, here we have the same exact outcome this time looking at DTaP vaccine.

**DM:** Which is the safer vaccine.

**BF:** Right, the less reactive. When you go on NVIC.org, I actually have a partial transcript of that 1986 ACIP meeting. I took a tape recorder and taped it. You could read that whole sort of historical look back in time, like back to the future, and look at exactly what they were saying back then about the effectiveness of DTP vaccine, pertussis vaccine.

**DM:** So we come full circle 25 years later and it's confirmed. A study has actually been published or will be published in a very prestigious journal.

**BF:** I think what this points out is there really is so much that's not really known about the way that vaccines work. When you look at the medical literature you see they acknowledge they don't really understand how natural immunity is conferred by the disease. There is so much unknown and yet what they are trying to pretend to the public is that they know. The answer always is more vaccine.

They need to first do the research to understand really how natural immunity is conferred, to understand what the vaccines do in the human body and when they fail and when they fail to protect for more than three years. They need to go back to the drawing board.

What really makes me angry is that they are mandating these vaccines. In California, there is a television news station who actually went door-to-door with a public health

official and a nurse with DTaP vaccine, had a list and you can watch this health official knock on the doors of people – they are in the Sacramento area – and say, we understand that your daughter doesn't have a booster dose of Tdap. We're here to vaccinate her which I think is an invasion of privacy.

I think is not the way that we should be doing public health by tracking down people and telling them that they have got to be vaccinated on the spot because you're in a list that says you don't have a booster dose of pertussis vaccine. When the truth is you could be as likely to be vaccinated and get pertussis as unvaccinated and get pertussis.

**DM:** That does seem to be the recurring trend is to recommend increasing booster doses to achieve this immunity which maybe a flawed concept to begin with. Even since I have been practicing when I first got my (indiscernible 18:04) in 1985 and started seeing patients in my private practice, I believe at that time it cost about \$85 to provide a full set of immunizations to a child before the age 5. I believe that was the case.

You know the specific numbers. I tend to forget them but I believe that the increase now today for the same set to get the child up-to-date is like over \$2000.

**BF:** It's \$2200 to fully vaccinate a child with all the government recommended vaccines. That doesn't include the office visit if you see a private pediatrician.

**DM:** It's just the cost of the vaccine which goes straight to the drug company. Actually, the doctor benefits from this partially.

**BF:** That's to purchase the actual vaccine. For example Gardasil vaccine is over \$100 a dose and there is three doses. So just to get the full three dose schedule of Gardasil vaccine it costs more than \$300.

**DM:** What age are they recommending that now?

**BF:** Gardasil vaccine can given to children as young as nine years old but usually 11 to 12 years old is the recommendation for both girls and boys.

**DM:** Certainly there are some children who become sexually active at that age or a little bit older but most don't I think would be the common consensus. My understanding is the vaccine only the protection, this immune protection has only been documented and even that's questionable to last three years.

**BF:** I think they followed up the girls. There are about 1200 girls under the age of 16 in the original clinical trials that Merck presented to the FDA for licensure. They followed those girls up for two years and they followed the women, the older girls and women up for about five years but it's really – there are only two strains in Gardasil and there are about 15 strains that are associated with cervical cancer...

**DM:** And there is over a hundred strains associated with the disease itself.

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**BF:** There already is discussion that this vaccine, this Gardasil vaccine for HPV may actually put pressure on the other strains that are not contained in the vaccine to become more prevalent called the replacement effect. It's sort of like what we were talking about with pertussis.

**DM:** This is adaptive pressure. Everyone understands this is the case for antibiotics. It's the same process for vaccines.

**BF:** We have another case of vaccines putting pressure on the organism, for other strains to come in and replace what's in the vaccine. The original pneumococcal vaccine called Prevnar that was brought out in 2000 and recommended four doses for all babies. That vaccine contains seven pneumococcal strains.

After about five or six years they realized that the other strains because there are more than 80 pneumococcal strains were coming in and were causing disease. They were replacing those seven strains and causing disease; really nasty ear infections that didn't respond to antibiotics.

So what did they do? They added more strains and now they have a pneumococcal 13 vaccine that is supposed to do the job but there still are more pneumococcal strains out there. Are you eventually going to have to have pneumococcal 80? I believe it's a flawed concept.

**DM:** Foundationally flawed.

**BF:** Foundationally flawed.

**BF:** What's interesting about vets is they actually are becoming a little bit more proactive about the idea that these vaccines in animals may be causing more problems for the animals, brain and immune system problems.

**DM:** In many ways no different than the human experience.

**BF:** That's right. I think it's interesting to look at the veterinary literature because they are doing biological mechanism work in the literature. I think it's kind of ironic that veterinarians are becoming more proactive with pets than pediatricians are becoming proactive about learning really what these vaccines are doing for children.

**DM:** It's interesting that veterinarians in some ways are ahead of the human science because they at least have enough inside wisdom to do these antibody titers to find out if in fact that a pet requires an additional vaccination but we don't do that with humans. We don't do it at all. I'm wondering if you can comment on that.



**BF:** That's right. I think it's really interesting that the vets are starting to realize ahead of pediatricians that these vaccines we maybe giving pets too many vaccines too frequently and that some pets don't need as many because they take the antibody titer, find out they've got a high antibody titer and they decide not to give them a booster.

There are some states in the country that will allow a child if they can show that they have a high enough antibody titer to a previous vaccination that they won't have to get a booster. Not a lot of states still have that but some states do and it's worth checking out your state laws because it's very easy to go down and get a blood test to have your titers pulled.

The other thing that I think is interesting is I believe in veterinary medicine they are trying to stay away from giving puppies or kittens that are still breastfeeding or are still nursing some of these vaccines. What I think about is in the medical literature the discussion that what vaccinologists want to do is replace maternal antibodies with vaccine induced antibodies.

A real interesting example in history of this is when they developed a high titer measles vaccine. The goal there was we want to give this measles vaccine to six- and nine-month-old children to override maternal antibodies so they will have vaccine induced antibodies.

In fact recently I saw that the WHO has reported some or suggesting that this rotavirus vaccine, the live rotavirus vaccine, the diarrhea vaccine that they are recommending that women in the poor countries suspend breastfeeding so that the children can get vaccine induced rotavirus antibodies.

I was stunned when I saw this because we all know that breastfeeding is an amazing way to give your child antibodies and give them superior nutrition and protection against disease and yet they are suggesting that the vaccines are more important than that protection.

**DM:** It sounds somewhat reminiscent of Nestles campaign to discourage women from breastfeeding and to use their infant formula as a more practical way to provide nutrition to their children.

**BF:** I just think the whole world seems to be turned upside down when it comes to vaccination. There is not really critical thinking going on.

**DM:** It's understandable too because there is a large profit motive. As we alluded to earlier there is \$2000 to immunize a child for every child in the United States. That amounts to very large sums of money that they can actually motivate this type of behavior.

Just another point and a particular pet peeve I have with respect to vaccines is the hepatitis B vaccine which is administered to most children the day they are born – the

very day they are born and in many cases without the knowledge of the parent. It's just routine hospital policy. You have to really be highly proactive and warn the entire staff multiple times if your child is going to avoid this. I have some personal experience with my sister whose child was born 11 years ago even despite doing this still was immunized despite her wishes.

The reason it's such a challenge to me is because hepatitis B vaccine is given to a child under the premise of preventing hepatitis B disease infection which can cause a problem later on in life. But the typical way it's acquired is through sexual activity or through IV drug use. How is a one-day-old infant going to be exposed to that? Even if you could justify preventing it long term – even there is question whether these antibodies even last that long when finally you are exposed.

The reason I am (indiscernible 27:12) of this is this issue of antibodies. It would be so much more cost effective and certainly far less riskier to everyone involved if they merely tested every pregnant woman right before delivery to see if in fact she was at risk because that's the only way the child is going to be at risk because if the mother is a carrier.

**BF:** Is infected, yes.

**DM:** If the mother is not infected there is no reason to give the child a vaccine.

**BF:** Right because there is an issue of how long does that protection last when you give it to newborns and young babies.

**DM:** Because there is no justification to give at birth when the exposure is going to be 14, 15, 16 year olds – it's potential exposure.

**BF:** How much do you know about the immune status, the neurological status of a newborn baby? The truth is you know very little about that newborn baby. You don't know whether there is this individual susceptibility is to having a vaccine reaction.

I just like to point out when the Institute of Medicine took a look at hepatitis B vaccine and the bad health outcomes reported after hepatitis B vaccine here is the category of we don't know whether or not the vaccine causes these different outcomes. These are serious outcomes; encephalitis, encephalopathy which is brain damage, seizures, type 1 diabetes, lupus, onset or relapse of multiple sclerosis in children and adults, onset of psoriatic arthritis, reactive arthritis or rheumatoid arthritis, juvenile idiopathic arthritis, Guillian-Barre syndrome, fibromyalgia.

These are very serious outcomes if they do not understand yet whether or not hepatitis B can or cannot cause these kinds of health outcomes. I think that vaccinating a child at birth in a country that has always had a very, very low incidence of hepatitis B when you know nothing about that child at birth is a very risky policy.

**DM:** Something we definitely would have people seriously consider before they offer the child up for this vaccine. We opened up this discussion about the concept of herd immunity. I'm wondering if you can comment on the concept or the practice of exposure to the infectious agent. Because immunizations are typically not always but typically administered through the skin parenterally but that is not the way the natural exposure is to most all diseases. It's not an intravenous or a percutaneous or a blood borne exposure. It's usually respiratory or airborne.

Because it's through a different route you're going to stimulate different antibody systems. You'll have a different immune response essentially from the typical vaccine administered immune reaction as opposed to a naturally acquired immune reaction.

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I wonder if you could discuss that event.

**BF:** There definitely is a difference as we said at the outset between naturally acquired immunity from experience with the infectious disease and vaccine induced immunity. The route of administration of vaccines is only one aspect of why you're not inducing the same kind of immunity. It also has to do with the...

**DM:** The number of strains.

**BF:** The strains that are in the vaccine. When I think about the issue of herd immunity that we started out with – I look at chickenpox vaccine. Varicella zoster vaccine is a really interesting example of how we have turned everything upside down. Chickenpox was a childhood disease that everyone got in the United States usually between the ages of three to maybe eight years old. By 10 the majority of children had experienced the chickenpox.

**DM:** There was even chickenpox parties, right?

**BF:** Yeah because moms wanted their kids to get it. What happened when you got it? You got a qualitatively superior robust immunity.

**DM:** Typically life long.

**BF:** I'll tell why it was lifelong. It was lifelong because when you got it as a child, as you progressed into a teenager and adulthood, you would come in contact with the children, the younger children who were infected with chickenpox and you were asymptotically boosted. Nature has a wonderful way of protecting us. You were asymptotically boosted.

**DM:** And there was no charge for that.

**BF:** No.

**DM:** No needles.

**BF:** No. The body said, "I recognized that. Okay, I'm boosted." Naturally boosted. So you had this lifelong protection. There were relatively few cases of shingles which is a part of the zoster family.

**DM:** It's the adult version.

**BF:** Yeah, shingles. Here is what happened. In 1995, the Varicella zoster chickenpox vaccine came out, a vaccine that was originally developed for children with leukemia and cancer who if they go through a bout with chickenpox can have a fatal horrible case. So it was originally for a specific population but there is not really a lot of money in only having it for a very small number of children. So at any rate they decided they were going to protect every child, healthy or not, from chickenpox.

1995, the vaccine comes out, it's licensed. It's a Merck vaccine. They told us because I remember doing a debate on television about this that they said, we're not going to mandate it. It's just going to be a vaccine offered. I thought 'nah.' Every vaccine I have seen come down the pike since I have been doing this work since '82 has always been mandated once it's been licensed for children.

Eventually, after 10 years, all of a sudden we see all the states mandating the vaccine. What you drove the chickenpox out of the typical population which is the three to eight year olds and you drove into the older age group so actually chickenpox can be more serious. I think it is three times the complication of pneumonia. You can have more death in the older age groups.

What you also did is you prevented older children and adults from being naturally boosted. No longer were they coming into contact with children infected with Varicella because the vaccine isn't the same as the disease. Now you've got an epidemic of shingles in older – actually some children are also getting it and adults. And guess what? Guess who the sole provider of the shingles vaccine is that's been developed – Merck. Chickenpox vaccine sole source. Shingles vaccine sole source.

You've got a situation now where – actually the Institute of Medicine in their latest report admitted that chickenpox vaccine, Varicella zoster vaccine can cause vaccine strain chickenpox. So you've got cases of actually children who have gotten vaccinated transmit vaccine strain chickenpox to say their pregnant moms. You don't want to have any kind of infection like that when you're pregnant. Some of the moms have aborted their babies because they are afraid their babies would be deformed.

Again, you're turning everything upside down because there is this sort of idea that we must prevent all infectious diseases in childhood with the mass use of multiple vaccines, in this case, chickenpox vaccine. But is that really going to produce long term good health on an individual or community basis?

Have we put blinders on and I mean, we as a society and become so afraid of all experience with infectious disease that we're willing to use more and more vaccines where there are still so many question marks about both the effectiveness of that intervention as well as the safety of it.

**DM:** It somewhat reminds me of exercise. You might wonder how?

**BF:** How?

**DM:** Exercise if done properly especially as a high intensity exercise is never really pleasant. It's challenging and it's a real stress on the system but it makes you stronger. Similarly, when you go through an infectious disease and you have a high fever which we strongly discourage even the American Academy of Pediatrics strongly discourages the suppression of fever with antipyretics like Tylenol or aspirin especially aspirin unless it gets above a certain temperature which is like 105 or 106 but certainly for most low level fever even up to 103-104.

You don't want to suppress it because it's that high fever that really stimulates this immune response. It's protective in the long term and provides a healthy robust system so that even children have less risk of autoimmune diseases and allergic conditions. So when they go through this normal process of childhood rather than it being suppressed artificially with a vaccination schedule.

Similarly if you exercise and you give your body what it requires you harden it, you help it develop resistance against some of the challenges it's going to normally experience in life. It's actually what our body is designed for. It's sort of following ancestral paths. If this is what our ancestors are exposed to, if this is what our body expects and you try to artificially bypass that there is usually a consequence and it's usually not good.

**BF:** For every action there is a reaction. For every medical intervention there is a change in the way that we individually or as a population, experience our life. What is health? I would argue that you do not define good health either on an individual or population basis by the absence of experience with infectious disease.

It's so compartmentalized to believe that if you eliminate all experience with infectious disease throughout life that you will achieve good health. In fact the opposite as you just pointed out maybe true. We maybe crippling the way our immune system function in a healthy way because we're so afraid of microorganisms that we're not allowing a natural process to take place that actually strengthens us so that in the future we can meet the challenges of those viruses and bacteria in a competent way.

We could be crippling our ability to do that and making ourselves as adults as a population exquisitely vulnerable to the challenge of viruses and bacteria in the future because we no longer know how to function in a normal natural healthy way.

**DM:** Yes indeed. I think we have really provided the viewers with a whole load of arsenal and ammunition to really address the concept of herd immunity which is really for the most part a flawed concept that really doesn't justify the recommendation of these mandatory vaccinations are becoming more pervasive and we're seeing more especially on a state-wide basis.

Ultimately we always encourage people to do their own due diligence, to do their research, to come to their own conclusions so they can have the freedom of choice to exercise their decision in this process. If their decision is to avoid a vaccine or exclude it from themselves or their children then we always like to focus on practical strategies so they can do that. And fortunately thankfully there are 18 states in this country that allow this conscientious belief or philosophical exemption and it's a relatively easy process.

For most of the others there is a medical exemption which is relatively difficult to acquire but there is a religious exemption. We've done a previous interview where you did a wonderful explanation, a very detailed, and careful analysis of what the process that one needs to go to do the strategy to have a successful exemption that would eliminate the inevitable barriers and objections to that exemption. I would encourage people to watch that because I have never seen a better demonstration of that.

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Of course your website is a phenomenal resource NVIC.org, for investigating and coming to conclusion but also if you're going to take an activist position so that you can signup. There is an advocacy portal that you can enter and participate in a statewide basis because that's really where the bulk of the effort and the activism is going to be on the state wide basis so that you can protect your current rights or initiate new ones to develop.

So there is an amazing professional arrogance that appears to be present in this issue on vaccines and an incredible short sightedness especially when there are so many unknowns as we discussed in an earlier report on the recent Institute of Medicine, one of the most prestigious scientific groups in so many areas that we just don't know.

It seems the rational approach in this area would be to exercise the precautionary principle just like we should do with GMOs. Rather than getting the genie out of the bottle and putting this selective pressure on crops that we rely on for the very sustenance of the human race potentially threaten that is just irrational.

There are other authors who have been somewhat prophetic in this. I think Rachel Carson comes to mind. She wrote a book in 1962, *The Silent Spring*. I think you have a favorite quote in there that you would like to mention and maybe perhaps expand on that concept.

**BF:** She really understood – she was like into DDT and the effects of toxins, pesticides on human health. She recognized very early on in her research that the big problem was detecting the effects of an injury and how there could be a lag time between the event and when you recognize an injury has occurred. Of course that brings to mind the whole vaccine program, adding more and more vaccines to the mandated list without really understanding the potential impact on vulnerable groups within society and really on human health in general.

What Rachel Carson said many, many years ago – “The lack of sufficiently delicate methods to detect injury before symptoms appear is one of the great unsolved problems in medicine.” I would argue that that is as true today as it was when she wrote it some 50 years ago – that we really don’t have a handle on the potential effects of vaccines even at the genetic level.

Are we causing genetic changes that we’re not even aware of right now that will affect future generations because we’re fundamentally altering the way our immune systems function with the atypical manipulation of the immune system over and over again with multiple vaccines. Not now, not just through the early childhood period but now vaccination is really a cradle to the grave approach by public health officials. Of course with the enthusiastic endorsement of pharmaceutical companies that are certainly making a large profit off of looking at health this way and looking at preventive medicine this way.

As I have said to you many times, my organization and I have never advocated that people not use vaccines. What we have advocated is safety first, education and an attention being paid that we’re not all the same. We’re not all biologically the same. But as far as a public health consequence leaving aside the individual susceptible public health consequence we really have not evaluated. Rachel Carson pointed it out 50 years ago.

**DM:** Thank you for all the work you have done in helping us become more informed about this issue so that we can be motivated to pursue this area for ourselves and reach our own conclusions because that’s when it becomes really powerful when we are able to convince ourselves through our independent analysis of the available research and literature and reach our independent conclusions and then providing us with the tools to help us exercise our freedom of choice.

**BF:** Thank you Dr. Mercola for all your support in terms of enlightening the public about what true health is.