

Parental Fear of Vaccines

**COMMUNICATING
EFFECTIVELY ABOUT
VACCINE SAFETY**

Fear: How Did We Get Here?

- In the 1940s, there was a yellow fever vaccine incident in the military. The human serum used as a stabilizer was contaminated with hepatitis B virus, and about 330,000 soldiers were infected, with 65 dying from overwhelming hepatitis.

Fear: How Did We Get Here?

- In 1955, approximately 70,000 children who received the Cutter's polio vaccine developed abortive (minor illness) polio as a result of a failure to inactivate wild-type polio. However, 200 children were permanently paralyzed and 10 died.

Fear: How Did We Get Here?

- A virulent *Mycobacterium tuberculosis* strain was inadvertently switched with the Bacillus Calmette-Guerin vaccine in 1929. It was given to 250 10-day-old children, and 72 infants died.

Fear: How Did We Get Here?

- Several public health campaigns were started, including one for the diphtheria vaccine in the 1940s, one for the polio vaccine in the 1950s and one for the measles vaccine in the 1970s.

Fear in the U.S.

- The whole cell pertussis vaccine, 1982

DPT: Vaccine Roulette

- Anti-vaccine movement in America born on April 19, 1982.
- Lea Thompson and “DPT: Vaccine Roulette.”
- Showed series of children with permanent brain damage following DTP vaccine.

The pertussis vaccine

- Barbara Loe Fisher, Kathi Williams, and Jeff Schwartz form Dissatisfied Parents Together (DPT), later the National Vaccine Information Center (NVIC).
- Within one month, Paula Hawkins holds a congressional hearing to discuss vaccine safety.

The pertussis vaccine

- ⦿ Media coverage claiming that the whole-cell pertussis vaccine caused brain damage.
- ⦿ Flood of lawsuits successfully claiming that pertussis vaccine caused SIDS, Reye's Syndrome, coma, mental retardation, epilepsy, and transverse myelitis.

The pertussis vaccine

- Price of DTP vaccine rose from \$0.19 in 1980 to \$12.00 in 1986.
- Number of OPV vaccine makers declined from 3 to 1, of measles vaccine from 6 to 1, and of pertussis vaccine from 8 to 1. Birth of the National Childhood Vaccine Injury Act (NCVIA) and the Vaccine Injury Compensation Program (VICP)

NVIC

- ⦿ Continues to weigh in on vaccine safety.
- ⦿ Notion that vaccines have merely replaced infectious diseases with chronic diseases.
- ⦿ NVIC is media savvy, politically connected, and personal-injury lawyer backed.

Introduction of new vaccines

- Hib: diabetes
- Pneumococcus: seizures
- HBV (adolescents): multiple sclerosis
- HBV (newborns): SIDS
- HPV: Blood clots, strokes, CFS



Acting on Parental Fear



Immunizations and Conversations

- ⦿ Parents want what is best for their children but they worry.
- ⦿ Providers want to give the best care but are frustrated by parental vaccine misconceptions.
- ⦿ Both parents' concerns and providers sense of frustration can start to be addressed through a conversation about childhood vaccination.

Communication: Keeping Confidence

- Be respectful – solicit questions

“What questions do you have about childhood immunizations?”

- Expect Concerns – affirm and empathize

“Concerns about vaccines are normal for conscientious parents.”

- Educate the parent before the day of child’s immunization.

“Here is a brochure describing the immunization process that may be helpful.”

- Share information responsive to parent’s concerns if possible.

Communication: Keeping Confidence

- Be informed and reassuring about current vaccine allegations and misinformation.

“Oh yes, when I heard about the 60 – minutes segment on vaccines and autism I checked several expert resources and the evidence indicates that the MMR shot doesn’t cause autism.”

- Strongly recommend vaccines.

“I believe in immunizations, for all children.”

- *People won't care what you know until they know you care.”*
--Barbara Reynolds, CDC Crisis & Emergency Risk Communication

Question: Do Vaccines Cause Autism?

“All those people who say that the MMR vaccine causes autism must be on to something”

www.cdc.gov/vaccines/hcp

<http://www.chop.edu/service/vaccine-education-center/hot-topics/autism.html>

“Autism is a burden for many families and people want answers – including me. But well designed studies that I can share with you show that MMR vaccine is not a cause of autism”

Question: Do Vaccines Cause Autism?

- **Autistic Disorder** (also called “classic” autism)
This is what most people think of when hearing the word “autism.” People with autistic disorder usually have significant language delays, social and communication challenges, and unusual behaviors and interests. Many people with autistic disorder also have intellectual disability.
- **Asperger Syndrome**
People with Asperger syndrome usually have some milder symptoms of autistic disorder. They might have social challenges and unusual behaviors and interests. However, they typically do not have problems with language or intellectual disability.
- **Pervasive Developmental Disorder – Not Otherwise Specified** (PDD-NOS; also called “atypical autism”)
People who meet some of the criteria for autistic disorder or Asperger syndrome, but not all, may be diagnosed with PDD-NOS. People with PDD-NOS usually have fewer and milder symptoms than those with autistic disorder. The symptoms might cause only social and communication challenges.

Question: Do Vaccines Cause Autism? Other Hypotheses.

- ⦿ Patient & empathetic reassurance that you understand that their infant's health is their top priority, and it also is your top priority, so putting children at risk of vaccine-preventable diseases without scientific evidence of a link between vaccines & autism is a risk you are not willing to take.
- ⦿ Your knowledge that the onset of regressive autism symptoms often coincides with the timing of vaccines but is not caused by vaccines.

Question: Do Vaccines Cause Autism? Other Hypotheses.

- ⦿ Your personal & professional opinion that vaccines are very safe.
- ⦿ Your reminder that vaccine-preventable diseases, which may cause serious complications & even death, remain a threat.

Vaccines are more dangerous than the diseases they prevent

“I’m really not comfortable with my 2-month-old getting so many vaccines at once”

www.cdc.gov/vaccines/hcp

“There’s no proven danger, but if you’re uncomfortable, we can give some vaccines today and schedule you to come back in two weeks for the rest, but this is not recommended. Remember, any time you delay a vaccine, you leave your baby vulnerable to disease. It’s really best to stay on schedule.”

Questions: Number and Ingredients

“What are all these vaccines for? Are they really necessary”

“I know you didn’t get all these when you were a baby. Neither did I. But we were both at risk of serious diseases like Hib and pneumococcal meningitis. Today, we’re lucky to be able to protect our babies from so many serious diseases with vaccines”

AAP’s fact sheet *The Childhood Immunization Schedule: Why Is It Like That?*
www.cispimmunize.org/pro/pdf/vaccineschedule.pdf

Ingredients

- **Formaldehyde (true)**
- **Antifreeze (untrue)**
- **Mercury (no scheduled childhood vaccines)**
- **Latex Rubber (untrue)**
- **Hydrochloric Acid (true)**
- **Aluminum (true)**
- **Aspartame (untrue)**
- **Aborted Fetal Tissue (some vaccines-tissue culture)**
- **Live Viruses (true)**

1900		1960		1980		2000	
Vaccines	Proteins	Vaccines	Proteins	Vaccines	Proteins	Vaccines	Proteins/ Polysacc's
Smallpox	~200	Smallpox	~200	Diphtheria	1	Diphtheria	1
		Diphtheria	1	Tetanus	1	Tetanus	1
		Tetanus	1	WC-	~3,000	AC-Pertussis	2-5
		WC-	~3,000	Pertussis	15	Polio	15
		Pertussis	15	Polio	10	Measles	10
		Polio		Measles	9	Mumps	9
				Mumps	5	Rubella	5
				Rubella		Hib Conj.	2
						Varicella	69
						Pneumo	8
						Conj.	1
						Hepatitis B	1
						Hepatitis A	3
						Influenza	7
						Rotavirus	
Total	1 ~200		5 ~3,217		7 ~3,041		14 ~137-150

Adverse Events

“I’m worried about the side effects of vaccines. I don’t want my child to get any vaccines today”

“I’ll worry if your child *doesn’t* get vaccines today, because the diseases can be very dangerous – most, including Hib, pertussis, and measles, are still infecting children in the U.S. We can look at the Vaccine Information Statements together and talk about how rare vaccine side effects are.

Unknown Adverse Events

“You really don’t know if vaccines cause any long-term effects”

“We have had years of experience with vaccines and no reason to believe that vaccine cause long-term harm. I understand your concern, but I truly believe that the risk of disease is greater than any risks posed by vaccines. Vaccines will get your baby off to a great start for a long, healthy life”

Fetal Cells Lines and Vaccines

- WI-38, developed in 1961 from the normal lung tissue of a three-month-old female fetus obtained by surgical abortion. The virus that led to rubella vaccine was obtained, at the same time, as the surgical abortion was performed on a rubella virus-infected mother.
- The abortion was not conducted in order to isolate the virus, but rather because the mother and the fetus were infected with wild rubella virus that posed a risk of major birth defects.

Fetal Cells Lines and Vaccines

- MRC-5, was developed from normal lung tissue of a fourteen-week-old male fetus, aborted (United Kingdom) "for psychiatric reasons."
- Both decisions to abort were independent of the desire to make use of fetal tissue. The abortions would have taken place whether or not the cell-line research would have followed. The abortions were not undertaken in order to produce vaccines or to fulfill any other research purpose.

Fetal Cells Lines and Vaccines

- ⦿ the currently available cell lines provide all the fetal material that is needed now and, for the future. The production techniques themselves do not require further abortions .
- ⦿ Some individuals may feel that they are cooperating with abortion if they or their children receive these five vaccines (**Hepatitis A, Varicella, Rubella, HDCV Rabies**), and **Zostavax (shingles vaccine)**.

Fetal Cells Lines and Vaccines

- When a person receives a vaccine injection, there is no cooperative action with whoever performed the abortions. The vaccine user provides no material assistance in the abortion nor acts in such a way as to will that the abortions take place. So there is independence in time and place, and morally, of vaccination from abortion.

Religious/ethical issues and immunization:
www.vaccineinformation.org/concern.asp

Fetal Cells Lines and Vaccines

- The use of these cell lines for the production of vaccines is somewhat akin to the use of the organs of a murder victim for transplantation in order to benefit others. A murder victim's organs are available because of a morally reprehensible deed, but their use to benefit someone else does not make the transplantation team or the recipient complicit in the murder.

Religious/ethical issues and immunization:
www.vaccineinformation.org/concern.asp

Fetal Cells Lines and Vaccines

- There is no cooperative action between the murderer and the organ recipient or the transplantation team. It is distasteful to draw personal benefit from another's suffering; yet taking advantage of this situation is not, morally evil or morally incoherent. It would be preferable to receive organs without any murder having occurred. It would be preferable if the vaccines had no connection with abortion. Nevertheless, the use of the vaccine is accidentally, not essentially related morally to those two abortions.

Fetal Cells Lines and Vaccines

- Pontifical Academy for Life points out that in the absence of an alternative; these vaccines may be utilized "to avoid a serious risk not only for one's own children but also, and more specifically, for the health conditions of the population as a whole - especially for pregnant women."

Fetal Cells Lines and Vaccines

- **The Vatican Academy also noted that "the parents who did not accept the vaccination of their own children become responsible for the malformations [due to rubella infection] in question."**

REFERENCES

- ① **1. The Age-Old Struggle against the Antivaccinationists.** Gregory A. Poland, M.D., and Robert M. Jacobson, M.D. N Engl J Med 2011; 364:97-99 January 13, 2011.
- ② **2. Deadly Choices, How the ANTI-VACCINE Movement THREATENS US ALL.** Paul Offit, M.D. Basic Books. Copyright 2011.
- ③ **3. Review of the Week: How the autism epidemic came to be.** Ian McClure. BMJ 342:doi:10.1136bmj.d852 (Published 9 February 2011).
- ④ **4. Editorial: Wakefield's article linking MMR vaccine and autism was fraudulent.** Fiona Godlee, Jane Smith, Harvey Marcovitch. BMJ 342:doi:10.1136bmj.c7452 (Published 5 January 2011).
- ⑤ **5. Secrets of the MMR scare: How the case against the MMR vaccine was fixed.** Brian Deer. BMJ 342:doi10.1136/bmj.c5347 (Published 5 January 2011)

REFERENCES

- 6. **Secrets of the MMR scare** : How the vaccine crisis was meant to make money. Brian Deer. *BMJ* 342:doi:10.1136/bmj.c5258 (Published 11 January 2011)
- 7. Secrets of the MMR scare: The *Lancet's* two days to bury bad news. Brian Deer. *BMJ* 342:doi:10.1136/bmj.c7001 (Published 18 January 2011)
- 8. **Rare Structural Variation of Synapse and Neurotransmission Genes in Autism.** Peter S. White. *Molecular Psychiatry*, published online March 1, 2011. Co-authors are from The Children's Hospital of Philadelphia and the University of Pennsylvania School of Medicine, Columbia University, Mt. Sinai School of Medicine, and the University of Colorado School of Medicine.

References

- 9. Offit, Paul. 2008. *Autism's False Prophets: Bad Science, Risky Medicine, and the Search for a Cure*. Columbia University Press.
- 10. Wakefield A.J., et al. 1998. "Ileal-Lymphoid-Nodular Hyperplasia, Non-Specific Colitis, and Pervasive Developmental Disorder in Children." *Lancet* 351: 637:41.