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# Chickenpox Party: Developing Natural Varicella Immunity

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"Whoopie!" When word got out that little George's cousin Natalie had chickenpox, the playgroup phone tree lit up with the jubilant consensus: "Chickenpox party!" George was there, as was Natalie, our "Patient Zero." Jonah, Timothy, Sam, and Luka came with parents in tow, hoping to bring home a lifelong party favor of double-stranded DNA herpesvirus.

Yes, it sounds cruel and unusual to subject one's child to a biological sneak attack. But we weren't going blindly into this affair like Tupperware-toting lemmings. We'd done our homework. On the kitchen table was a stack of clinical studies citing the pros, cons, dos, and don'ts of catching wild chickenpox in the company of friends.

Sharing sippy cups, whistles, and lollipops (sugar- and saccharine-free, of course), the wee revelers romped and stomped and ran amok as microscopic varicella viruses triggered the alarms of their mucous membranes, manufacturing ideal antibodies for a lifetime of immunity.

Admittedly, we mommies and daddies were not caught in the mainstream with this somewhat rebellious act. Today's conventional wisdom says to go with the shot, which many parents do "to be on the safe side." But we at the party were doing what we felt was safest, after weeding through the propaganda and rhetoric about America's latest "Red Scare": the deadly scourge of chickenpox panic.

You've seen them: The spooky Merck & Co. ads with the crying rubber duck. The statistics of children dying from chickenpox. The assurances of vaccination safety. Slick. Even convincing, to some.

The leading edge of a new slew of mandatory policies is a recent decision from an Illinois immunization advisory committee that has recommended that chickenpox vaccinations be required for admission to Illinois schools-against the advice of the state health board. Allegedly, five of the committee's 18 members-and Illinois's governor, George Ryan, who vetoed a bill that would have banned people with financial ties to pharmaceutical companies from serving on the committee-had

financial ties to Merck. <sup>1</sup> Conflict of interest or not, 29 states now require proof that children entering daycare or school either have had chickenpox or have been vaccinated against the disease.

Varivax, the varicella vaccine manufactured by Merck, was approved by the FDA in 1995. The latest Centers for Disease Control (CDC) reports estimate that 75 percent of the nation's children have been vaccinated with it. They credit the vaccine with a significant statistical drop in the number of chickenpox cases reported, and they have stacks of studies to back up their claim. From 1987 to 1997, the reported national incidence of chickenpox decreased 58 percent. <sup>2</sup> In fact, doctors are no longer required to report chickenpox cases to local and state health departments-which just might have some influence on optimistically low chickenpox statistics.

"The decrease from 1987 to 1997 corresponded with decreases in the number of states reporting to NNDSS and the completeness of reporting," admits the CDC. Areas reporting dropped from 46 states and DC in 1972 to 20 states in 1997. What declined was the reporting, not the incidence of chickenpox. Today, the CDC actively watches only three US sites for varicella: West Philadelphia , Pennsylvania ; Travis County, Texas; and Antelope Valley , Los Angeles County , California. <sup>3</sup>

Two years after vaccine licensure, in the 14 states that maintained continuous reporting of varicella, the incidence remained completely unchanged, at 107.0 cases per 100,000 population. (The national incidence, however, was reported by the CDC as dropping to 36.9. <sup>4</sup> )

While the CDC estimates the vaccine to be 86 percent effective in children, a 2001 CDC study showed that that effectiveness might actually be as low as 40 percent. <sup>5</sup> But authorities at Maryland's Takoma Park Elementary School might quarrel even with that. There, reportedly, 12 of the 16 cases of a recent chickenpox outbreak involved children who had already been vaccinated. <sup>6</sup>

Moreover, the CDC's Jane Seward, MD; Karin Galil, MD, MPH; and Anne A. Gershon, MD, director of the infectious disease division at Columbia University College of Physicians and Surgeons, found further cause for concern about the vaccine in a recent outbreak of chickenpox at a Concord, New Hampshire daycare center. <sup>7</sup>It began with a child who had been vaccinated, contradicting the theory that "breakthrough" cases-i.e., children who develop true chickenpox despite having been vaccinated-are not contagious. Studies from Cedars-Sinai Medical Center also refute the idea that vaccine-borne varicella is not contagious. <sup>8-10</sup>

Nor, perhaps, is the vaccine as safe as advertised. A 2000 article in the Journal of the American Medical Association disclosed a wealth of reports made by doctors and

parents to the Vaccine Adverse Event Reporting System (VAERS). "This FDA report confirms our concern that the chickenpox vaccine may be more reactive than anticipated in individuals with both known and unknown biological high risk factors," said Barbara Loe Fisher, president of the National Vaccine Information Center (NVIC). [11](#)

Allowing for underreporting, the authors estimated that 4 percent of vaccine-induced adverse reactions (about 1 in 33,000 doses) were serious, resulting in shock, convulsions, encephalitis, thrombocytopenia, and 14 deaths. The report adds 17 adverse events to the manufacturer's product label, including secondary bacterial infections (cellulitis), secondary transmission (infection of close contacts), and Guillain-Barré syndrome.

"This vaccine should not be mandated," said Fisher. "There are too many questions about the true adverse event and efficacy profile of this relatively new live virus vaccine." [12](#) Fisher's concerns are not theoretical. Her son was left with multiple learning disabilities and attention deficit disorder after a severe reaction to a DPT shot.

This is not to say that wild chickenpox is entirely benign. The CDC estimates that the 4 million annual cases result in 11,000 hospitalizations and 100 deaths every year. (Although deaths first became reportable to the CDC only in 1999.) The risk of death from chickenpox complications in healthy children is quite minimal. However, the CDC contends that chickenpox is the leading "vaccine-preventable" killer of children, and many clinical studies have been published attesting to the vaccine's safety and efficacy.

But, some vaccine critics say, the wild version has its advantages. Allegedly, it produces much higher antibody levels than the vaccine, making individuals less prone to developing shingles, the adult version of chickenpox.

Getting chickenpox naturally works something like this: The virus enters the body through the mucous membranes and the upper respiratory and gastrointestinal tracts, giving the body time to work up a strong immune response. Once the body's immune system has built an antibody for the virus, the body will always build that same antibody on future contacts with the virus. Theoretically, if the first encounter with chickenpox is through vaccination, the resulting inferior antibody that the body develops is what will be used whenever the body encounters chickenpox in the future.

Critics of vaccines say that catching the wild version can mean the difference between temporary and lifelong immunity. According to Merck's literature, "the duration of protection of Varivax is unknown at present." Although studies in Japan report a 20-

year vaccine duration, the CDC theorizes that that immunity will wane if wild viruses are wiped out. [13](#)

The danger here is illustrated well by Kristine M. Severyn, RPh, PhD, a vaccine critic who has exposed drug-policy corruption in Ohio, Texas, Illinois, the American Academy of Pediatrics (AAP), and the Advisory Committee on Immunization Practices. [14](#) According to her studies, a widespread national chickenpox vaccination program might shift the incidence of chickenpox to adults, where the complication and death rate rise sharply. [15](#) In America today, adults comprise only 2 percent of chickenpox cases, but are responsible for 47.5 percent of deaths from chickenpox. [16](#)

Dr. Arthur Lavin, a pediatrician at St. Luke's Medical Center in Cleveland, agrees, writing in *The Lancet* that routine varicella vaccination in healthy children might pose a "grave danger of advancing the age of onset of chickenpox into adulthood." [17](#)

We were able to witness this firsthand. Luka's uncle Damir, 32, caught chickenpox in the wake of our party. While all the kids had mild responses, Damir got the worst case his doctor had ever seen: hundreds of lesions, even in his mouth and down his throat; headache; and tender kidneys. Uncle Damir couldn't sleep for two days. "Please, kill me," he joked as he staggered about, coated head to toe in calamine lotion.

Painful or not, catching chickenpox may be necessary for health, claim some clinicians. Internet medical celebrity Dr. Joseph Mercola theorizes that since varicella virus is a member of the Human Herpes virus family (herpesvirus 3 or HHV3), naturally acquired chickenpox may provide protection against other herpesviruses that have been implicated in causing cancer, Bell's Palsy, multiple sclerosis, AIDS, and chronic fatigue syndrome. [18](#)

On the other side of the debate, Dr. Anne Gershon of Columbia University recommends vaccinating children to help patients cope with leukemia. "Because of the complexities involved in immunizing leukemic children, there seems to be a greater interest in vaccinating healthy varicella-susceptible individuals rather than leukemic children. If immunization with varicella vaccine were recommended for all 15-month-old infants, most children who become immunosuppressed because of development of leukemia would already have been vaccinated against varicella-zoster virus." [19](#)

Although technically correct, Gershon's opinion isn't taken seriously by critics of vaccines. Vaccinating millions of healthy babies every year to protect leukemic children against chickenpox seems a stretch, but it's the kind of thinking that forms vaccination policy. The official reason behind vaccinating infants for Hepatitis B was

in case these tots grew up to engage in high-risk sex or use IV drugs. Babies aren't statistically at risk for Hepatitis B. They are vaccinated because they are "accessible."

Still, what about the 100 people who die of chickenpox each year? You certainly wouldn't want your child to be one of them. "Sadly, about 7,400 kids end up in the hospital each year because of problems due to chickenpox. . . . And tragically, about forty children lose their lives," warns a Merck Varivax advertisement. But, a skeptic would ask, are those numbers accurate? Not entirely. Even Merck's clinical papers characterize chickenpox as a "benign, self-limiting disease." Technically speaking, people die not from chickenpox, but from complications, such as pneumonia, staph infection, meningitis, and encephalitis.

Moreover, some investigators suggest that modern medicine is to blame. After reviewing the medical records of several children who had allegedly died of chickenpox, Gary Krasner, director of the Coalition for Informed Choice, an anti-vaccine advocacy group, concludes: "Nearly all of these deaths were a result of standard medical care. Physicians would treat the children with antibiotics, analgesics, or steroidal medications as their condition grew progressively worse. . . . The doctors responded to each new symptom with yet another drug, until the children died." <sup>20</sup> Here's one such report:

"On February 28, 1997 , a previously healthy, unvaccinated 21-month-old boy developed a typical varicella rash. . . . On March 1, he was taken to a local emergency department (ED) with a high fever and was started on oral acetaminophen [Tylenol] and diphenhydramine [an antihistamine]. On March 3, his primary-care physician prescribed oral acyclovir [an antiviral]. On March 4, his mother noted a new petechial-like rash. . . . [H]is primary-care physician noted lethargy, a purpuric rash, and poor perfusion [pulse]. He was transferred to a local ED. Fluid resuscitation and intravenous ceftriaxone [an antibiotic] were initiated, but the child continued to deteriorate rapidly, requiring intubation, mechanical ventilation, and inotropic [heart] support with dopamine [a morphine-like neurotransmitter]. . . . [H]e suffered cardiac arrest and died. The death was attributed to varicella." <sup>21</sup> (our italics)

What's interesting about this case is that it and two others were specific examples published in a 1998 issue of the CDC's Morbidity and Mortality Weekly to promote childhood vaccinations. <sup>22</sup> The cases were from 1997 in Texas and Iowa . It's unclear why these deaths were highlighted out of the alleged 100 chickenpox deaths that year. However, it's crucial to know that the second child, an asthmatic on the steroid Prednisone, was also given an antipyretic (probably aspirin or acetaminophen), and eventually developed and died from Group A strep (GAS).

The third child was treated with five antibiotics: one "unspecified," then methicillin and ceftriaxone, until he developed penicillin-resistant Staphylococcus. He was then put on nafcillin and gentamicin. Antibiotics can complicate varicella. First off, varicella is a virus, against which antibiotics are useless. Antibiotics may be necessary in advanced cases against secondary bacterial infections, but, Gary Krasner says, they impair the immune system-and the healing process, since they kill the good bacteria along with the bad. "After cells have been damaged, it is important for bacteria, acting as scavengers, to attack and devour the weakened, injured and dead cells. Otherwise, these dead cells would become accumulated toxic waste themselves." [23](#)

Antibiotics were recently found to increase the risk of hemolytic-uremic syndrome when used for treatment of children with E. coli. [24](#) Whether or not they also complicate varicella remains unknown. Another issue to consider is that overuse of antibiotics has led to antibiotic-resistant bacteria. Of note are the relative prevalence of antibiotic-resistant streptococcus pneumoniae in daycare centers, and the relative prevalence of streptococcus pneumoniae in varicella complications and deaths. [25](#)

Krasner's theories are partially substantiated by a 1999 paper by Benjamin Estrada, MD, of the University of South Alabama . Estrada reports that nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin, acetaminophen, naproxin, and ibuprofen (Motrin, Advil, Nuprin) promote such GAS infections as necrotizing fasciitis (NF) and streptococcal toxic-shock syndrome-some of the major complications of varicella. The correspondence is significant: doctors routinely prescribe NSAIDs to lessen the aches and itching of chickenpox. [26](#)

Estrada cites several studies. One found that development of invasive GAS infection was 8.3 times more likely in patients who used ibuprofen during the first five days after the onset of chickenpox. Another, focusing on NF, found that ibuprofen use led to twice as many hospitalizations as in control groups. [27-29](#)

But with dangerous regularity, physicians prescribe NSAIDs such as ibuprofen to children with chickenpox. Take online Parents Place/Parent Soup "expert" Robert Steele, MD, for example. His column was awarded Best of the Pediatric Internet by the AAP, and Sesame Street magazine calls it one of the Best Health Sites for Parents. Yet Steele happily promotes ibuprofen for "fever control" during chickenpox because it's free of "sticky theoretical considerations." [30](#) Theoretical? Estrada would differ.

One other varicella-linked pharmacological danger is Reye's Syndrome, a life-threatening condition that causes liver failure and swelling of the brain. Epidemiological research links Reye's Syndrome and the use of aspirin for treating the symptoms (usually fever) of chickenpox. [31](#) Moreover, according to the National Reye's Syndrome Foundation, "An epidemic of flu or chickenpox is commonly

followed by an increase in the number of cases of Reye's Syndrome." <sup>32</sup> Symptoms include irregular breathing and lethargy, two symptoms that often appear in case studies of varicella deaths. Reye's Syndrome is often misdiagnosed as encephalitis or meningitis, two complications that often appear in case studies of varicella deaths. Is it possible that aspirin is making a benign virus a killer?

Then there's the "death by misadventure" case of Lexie McConnell, a nine-year-old girl from England . She, too, died of chickenpox, but the coroner's inquest directly linked her death to the steroid Prednisone. She had been prescribed the potent anti-inflammatory drug for a pre-existing eye infection. Her parents have since collected a 20,000-signature petition calling for an inquiry into corticosteroid prescription in Britain , a motion that has reached as high as the European Parliament. <sup>33</sup>

The VAERS post-licensure study also faulted medical practitioners for contributing to varicella complications by simply administering the vaccine. "Pregnant women occasionally received varicella vaccine through confusion with varicella zoster immunoglobulin," <sup>34</sup> According to JAMA.

Besides these medical mishaps, there is another pattern in chickenpox-related fatalities: pre-existing medical conditions. Vaccine proponents often refer to a Reuters report that cites six Florida deaths in 1998 linked to chickenpox. "Since all six were good candidates for the vaccine, these deaths could have been prevented." A closer examination of the cases reveals that only two of the deaths were of children. One, an asthmatic, had been on steroids and died on a respirator. The other had leukemia and had been on immunosuppressive therapy since receiving a bone-marrow transplant. Of the adults, one was also an asthmatic on steroids (Prednisone again); another had diabetes, asthma, and cirrhosis of the liver. <sup>35</sup> Also interesting to note is that two of the adults who died were born and raised in Cuba. Because varicella is susceptible to heat, it is less easily communicated in tropical areas. People from the tropics are less likely to acquire immunity in childhood, and thus have higher rates of susceptibility as adults.

But we at the party knew all that. Our children were all healthy. None had asthma or leukemia (that we knew of), and no one was on steroids. Nor were we planning to give anyone Tylenol, aspirin, or NSAIDS of any kind. It was our belief that, given the correct circumstances, what we were doing was acceptably safe, rationally prudent, and would give our children a lifetime of immunity to a disease that could be dangerous in adulthood.

Yes, we all lost a night or two of sleep with a fussy child-the vaccine reportedly results in a milder version of chickenpox. But we felt those missed hours were worth

the preservation of our children's health and well-being. Besides, they don't give out party hats at the doctor's office.

## NOTES

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For more information about chickenpox, see the following past issues of *Mothering*: "The Chickenpox Vaccine," no. 79 and "Putting Up with Chickenpox," no.70.

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### **Tips For A Chickenpox Party**

Chickenpox incidence peaks in the late winter and spring. Ask your pediatrician or family doctor to alert you when other children have contracted chickenpox, if you want to expose yours as well.

The varicella virus is communicated easily through saliva. Pass a whistle from the infected child to other children at the party.

The incubation period of chickenpox is usually 14 to 16 days, although some cases occur as early as 10 or as late as 21 days after exposure. Chickenpox is contagious beginning two days before the rash appears, and is most infectious from 12 to 24 hours before the rash is recognized. Contagion lasts as long as 5 days after the onset of lesions, until lesions cease to erupt and have crusted.

During periods of fever and rash, don't feed your children soda, fruit juice, milk, sugar, or over processed foods, which can hinder their immune systems. Chickenpox taxes defensive organs, such as the liver and kidneys.<sup>1</sup> If your children are not hungry when they have chickenpox, that's normal-don't force food on them. Encourage them to drink plenty of water.

Vitamins A and C can help boost immune response. Oatmeal baths and aloe or calendula creams help soothe itchy lesions. Calamine lotion helps dry them up.

Don't give your children aspirin. Anacin, Bayer, and Excedrin all contain aspirin, as do Pepto-Bismol and Alka-Seltzer. Don't give them acetaminophen (Tylenol) or ibuprofen (Motrin, Advil, Nuprin). Don't give them steroids, particularly Prednisone. And don't give them antibiotics unless secondary infections appear.

Avoid exposing your child to adults who have never had chickenpox. Ninety-five percent of adults are immune; however, the remaining 5 percent are very susceptible and perhaps should consider being vaccinated instead, since that usually results in a milder case.

Once your child has been exposed to chickenpox, limit his or her exposure to the virus. One party should do it; multiple exposures can make the case more severe. The younger siblings of the kids at our Pox Party developed worse (though still mild) cases than the ones who brought it home.

Record the event. Many schools mandate that children be immune to chickenpox before they enter school. Obtain a written, signed note from your physician, or take photographs of your children when the pox have manifested. As a last resort, a blood test to show antibody levels will exempt a child from required vaccines.

Important: Chickenpox poses significant risks to nonvaccinated pregnant mothers and their prenatal babies. To protect the fetus, a pregnant mother's body suppresses Th1 (search and destroy) immunity, but Th1 immunity is crucial to fighting chickenpox. If

you've never had chickenpox and are pregnant, get a titer to see if you have varicella antibodies before you expose yourself.

If you are considering having your child vaccinated, bear this in mind: Just because your child hasn't caught chickenpox doesn't mean that he or she doesn't have antibodies against it. According to a 2000 child study at Laval University in Quebec, 63 percent of 10 year olds with no chickenpox histories already had antibodies against the virus.<sup>2-5</sup> Before vaccinating your child, test him or her for immunity. Later, if your child has an adverse reaction to the vaccine, report it to the Vaccine Adverse Event Reporting System (VAERS) at 800-822-7967.

## NOTES

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## The Vaccine Cocktail

According to Merck & Co., each 0.5 mL dose of Varivax contains the following: a minimum of 1350 plaque-forming units (PFU) of Oka/Merck varicella virus, 25 mg of sucrose, 12.5 mg hydrolyzed gelatin, 3.2 mg sodium chloride, 0.5 mg monosodium L-glutamate, 0.45 mg sodium phosphate dibasic, 0.08 mg potassium phosphate monobasic, 0.08 mg potassium chloride; residual components of MRC-5 (cloned, aborted-fetus) cells including (guinea pig) DNA and protein; and trace quantities of sodium phosphate monobasic, EDTA, neomycin, and fetal bovine serum.

Varivax contains no preservative, so you don't have to worry about thimerosal. But what about that MSG, MRC-5 cells, guinea-pig DNA, and fetal bovine serum? Well, MSG is a neurotoxin. Enough said. Allegedly, chromosomal abnormalities in the vaccine's MRC-5 cells exceed generally accepted limits. But Merck concluded that these abnormalities were not tumorigenic and were therefore "safe."

As for guinea-pig DNA, according to Merck, detectable infectious agents were not present in the material used to produce Varivax. To see the half-truth in Merck's statement, one need only remember the 1960 controversy over the use, in early polio vaccines, of monkey DNA containing SV40, a then-undetectable monkey virus.

Every year, previously "undetected" viruses are discovered in fetal bovine serum. Contamination citations include bovine viral diarrhea virus, bovine herpesviruses 1 and 4, and bovine polyomavirus.<sup>1, 2</sup>

Another detail in Merck's small print: "Varivax has not been evaluated for its carcinogenic or mutagenic potential, or its potential to impair fertility."

Sounds like Pox Party time!

#### NOTES

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