In Part 1 of this series, we discussed the reasons why we should challenge our assumptions that vaccines are safe and effective. These reasons include the adverse effects associated with vaccines, the unsound principles on which they are based, questions about whether immunization really eliminates disease, the toxic ingredients used in vaccines, and vaccine failures. In Part 1 we also began to look at the effects of specific vaccines with a discussion of the diphtheria, pertussis and tetanus vaccine; we continue that process in Part 2 with a look at the polio, chickenpox, hepatitis B, and measles, mumps and rubella vaccines.

**Polio Vaccine**

Three types of polio vaccines have been used throughout the world: 1) the OPV, or oral polio vaccine (Sabin vaccine), consisting of live, attenuated poliovirus; 2) the IPV, or inactivated polio vaccine (Salk vaccine), consisting of killed poliovirus and given by injection; and 3) the eIPV, an enhanced potency inactivated polio vaccine, consisting of killed poliovirus with high viral antigen content.

Today, the Advisory Committee on Immunization Practices (ACIP) recommends exclusive use of the IPV for routine childhood polio vaccination in the U.S. (the enhanced-potency version is the only IPV in use in the US). The ACIP changed its polio vaccine recommendation to the all-IPV schedule, effective January 2000, to eliminate the risk for vaccine-associated paralytic poliomyelitis (VAPP), the condition caused by the previously recommended oral polio vaccine.

Until 1996, all children in the US, except those with a compromised immune system and their close contacts, were immunized with the live attenuated OPV vaccine. However, the vaccine actually caused polio in a small percentage of people. According to the CDC, the overall risk for VAPP is approximately one case in 2.4 million OPV doses distributed, while the first-dose risk is one case in 750,000 doses distributed. In fact, the only indigenous cases of polio reported in the U.S. since 1979 have been associated with the use of OPV. Between 1980 and 1998, 144 cases of VAPP were reported.

Despite these occurrences, the ACIP recommended the use of OPV in the US because it believed the benefits of the oral vaccine outweighed the risk for VAPP. In 1996, the ACIP recommended a sequential schedule of IPV and OPV to “decrease the risk for VAPP but maintain the benefits of OPV.” It then recommended the all-IPV schedule as of January 2000, citing several reasons: the substantially reduced likelihood of poliovirus being imported into the US due to rapid progress made in the global polio eradication initiative; the acceptance of the sequential schedule; and the lack of declines in childhood immunization coverage.

**Guillain-Barre Syndrome and Polio Vaccine.** Guillain-Barre syndrome (GBS, also known as acute inflammatory demyelinating polyradiculoneuropathy, or AIDP, for short) is a disease that involves the nervous system and is characterized by muscle weakness, numbness, loss of reflexes, and paralysis.

In Finland in 1985 there was an increase in the incidence of Guillain-Barre syndrome that followed by a few weeks the implementation of a nationwide oral polio virus vaccine campaign. In Brazil, analysis of 38 cases of paralysis diagnosed as GBS led in all cases to the isolation of the vaccine strains of the poliovirus. All patients had been vaccinated with the oral polio vaccine months or years before the onset of symptoms.

Furthermore, vaccine viruses also have been isolated from patients with paralysis diagnosed as transverse myelitis (TM), and in patients with facial paralysis (FP). Most individuals with TM and FP had received the oral polio vaccine months or years prior to the onset of disease, indicating that the virus may remain latent and revert to virulence later in time. It is noteworthy too that in Brazil, cases of wild-type poliomyelitis have not been reported since 1989, while vaccine-associated paralysis is still occurring.

**The Cancer Connection to the Polio Vaccine.** In 1960 it was discovered that both the Salk and Sabin vaccines, which had been administered to millions of people, were contaminated with SV40 (simian virus 40), derived from the monkey kidney cells used to grow the vaccine viruses. The SV40 survived inactivation with formaldehyde, the method used to kill the poliovirus, and was therefore injected with the vaccine into 98 million people in the US and hundreds of millions worldwide. These individuals today have SV40 sequences integrated into their genetic code.

Animal studies have demonstrated the ability of SV40 to integrate its DNA into that of the host cell and to induce malignancy. Unfortunately, a growing number of studies are showing that the virus retains those same properties in humans as well as in animals. Integration and replication of SV40 has been documented in 13% of non-Hodgkin's lymphomas, 16% of Hodgkin's lymphomas, 11% to 90% of different types of brain tumors, and 83% of mesotheliomas (malignant tumors of the lining of the lungs), 30% of bronchopulmonary carcinomas, 50% of osteosarcomas, and more than 33% of other types of bone tumors.

**Chickenpox Vaccine**

In 1995 the American Academy of Pediatrics (AAP) and the ACIP recommended universal chickenpox (varicella) vaccination of children aged 12 to 18 months. They also recommended that the vaccine be given to children aged 18 months to 12 years who have not been vaccinated or who lack a reliable history of the disease.

The fact is that in the vast majority of cases, chickenpox is a benign, self-limiting disease in children. Natural immunity, derived from contracting the disease, is permanent. Vaccine-induced immunity, on the other hand, is only temporary, lasting an estimated six to 10 years. The temporary nature of vaccine-induced immunity can create a more dangerous situation by postponing the child's vulnerability until adulthood, when death from the disease is 30 times more likely.

The National Vaccine Information Center (NVIC), Vienna, Virginia, advises parents to seriously consider not using the chickenpox vaccine on healthy children. Barbara Loe Fisher, cofounder and president of the NVIC, elaborates: "Our organization is questioning the recommendation...that all healthy children be vaccinated with the chickenpox vaccine...."

"...In children, chickenpox is, by and large, a very mild disease. The case/fatality ratio in healthy children is 1 death per 100,000 children. In adults it rises to 31 deaths per 100,000. So it basically is an experiment. That is really what happens with most of these vaccines that they bring out. They really don't know what the long-term effect is going to be."

"The other thing about the chickenpox vaccine is that the vaccine virus could lie dormant in vaccinated individuals, and then reactivate later in life in the form of herpes zoster, which is also known as..."
shingles, or perhaps [in the form of] other immune system disorders..."

Fisher is not the only one to question the appropriateness of the official recommendations concerning this vaccination. According to the results of one survey, 58% of pediatricians interviewed did not recommend varicella vaccination of all infants.21

Discounting the numerous concerns of doctors, researchers, and parents, in February 1999 the CDC expanded its guidelines for varicella vaccination and required that all children entering child care centers and elementary and middle schools receive varicella vaccination unless they have evidence of immunity.22

In the meantime, 6,580 adverse events - including 14 deaths - were reported to the Vaccine Adverse Events Reporting System in association with varicella vaccination between March 17, 1995 and July 25, 1998.23 The actual number could be at least 10 times higher, if we take into consideration the proven fact that only 10% of adverse events are commonly reported.

Another concern regards pregnant women. Normally, 90% of adult women are immune to varicella and transfer this immunity to their fetus during pregnancy. But the immunity induced by vaccination, which lasts only five to 10 years, may be gone by the time a woman enters her reproductive stage, leaving pregnant women at risk of contracting the infection and transmitting it to the fetus. Fetal varicella syndrome is characterized by multiple congenital malformations and is often fatal for the fetus.24 Thus, we need lifelong immunity from natural infection.

In addition, children born from women whose vaccine-induced immunity has faded are unprotected during their first year of life, when their immune system is still developing, and may suffer fatal complications should they be exposed to the infection.

Is the Chickenpox Vaccine Effective? If the effectiveness of the vaccine is measured by its ability to prevent the disease from occurring, the answer is simply no. As we read in an article published in Pediatrics, "In 1998, three years after vaccine licensure, child care centers in Los Angeles County continued to report varicella outbreaks." These outbreaks occurred in child care centers with high vaccine coverage as well as in those with low coverage, meaning that the infection spread regardless of child vaccination status.25

An interesting article clearly shows how questionable are data claiming reductions of diseases following immunization campaigns. This is what often happens: Reporting of a specific disease is encouraged until the start of a vaccination program. Thus, the disease appears to be present at certain rates. Then, after the vaccine enters the market, reporting is no longer required and therefore not done, and the rates of the disease seem to drop. But in reality the drop results from changes in reporting requirements and practices, not from an actual decline in the number of cases.

Vaccination against chickenpox will not prevent a child from contracting the disease. Rates of infection in vaccinated individuals - so-called "breakthrough varicella" - range from 20 to 34% in the 10 years following immunization.26-28 Furthermore, even if vaccination reduces the number of skin lesions, the duration of the infection, and the occurrence of fever in individuals who develop breakthrough disease, it does not reduce the rate of constitutional complaints and that of complications.29

One study found that 18.6% of children who responded to varicella vaccination developed breakthrough disease after exposure to the infection in the five to 10 years following immunization.30 Another study showed that 20-30% of vaccinees developed varicella in the 10 years following immunization.31 In a third study, 34% of individuals vaccinated against chickenpox developed breakthrough disease in the seven to 10 years following immunization.32

Further Readings: Articles discuss the potential downside to the mass use of the chickenpox vaccine and reactions associated with it.33,35

Hepatitis B Vaccine

The hepatitis B vaccine, commercially available in the United States since 1982, was supposed to be given to every American child within 12 hours of birth. In spite of this measure, "the incidence of acute hepatitis B in this country has risen from 55 per 100,000 in 1981 to 63 per 100,000 in 1987," according to the New England Journal of Medicine.36 Additionally, strong side effects have been reported following the use of this vaccine. In 1990, the Journal of Pediatric Child Health had this to say on the subject: "There have...been reported six serious illnesses in a series of 200,000 hepatitis vaccinations, including aseptic meningitis, grand mal seizure, and possible transverse myelitis, as well as 56
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minor illnesses considered likely due to the vaccine. These minor illnesses include neurological tremors, Bell's palsy, hives, herpes zoster, psoriasis, musculoskeletal generalized myalgia, joint inflammation...influenza-like syndrome, injection site reaction, diarrhea, vomiting, and headache.

The authors conclude with these recommendations: "Until further evidence can be gathered on possible side-effects or complications from the hepatitis B vaccine, it may be worth considering only giving the vaccine to people at high risk, rather than to all the population."

According to Barbara Loe Fisher, "Today, hepatitis B recombinant vaccine used in the US is derived from hepatitis B surface antigens produced in yeast cells. A portion of the hepatitis B virus gene is cloned into the yeast (a common baker's yeast) and the vaccine is produced from cultures of this recombinant yeast strain. The vaccine is treated with formaldehyde and contains...hepatitis B virus surface antigen...yeast protein [and] aluminum hydroxide..."

The unfortunate reality is that vaccination against hepatitis B has played an uncertain role in preventing the spread of the infection in high-risk individuals. In fact, the incidence of hepatitis B infection has risen 37% since the introduction of the vaccine.

However, health care workers have not rushed to get this injection. A 1990 article in the British Medical Journal reports that 86% of 598 doctors questioned about hepatitis B vaccine believed all general practitioners should receive it, but 309 of these doctors had not been vaccinated themselves.

In another study, only 25% of nurses and 49% of doctors had been immunized, despite the fact that 87% of the medical staff and 57% of the nurses reported a history of needle stick injury. And the reaction among family physicians is even less enthusiastic: Only 17% of 300 family physicians agreed that a recommendation of hepatitis B vaccination was warranted for all newborns in their practice.

Is the Hepatitis B Vaccine Safe? As we learn from a study published in the Pediatric Infectious Diseases Journal, between 1991 and 1994, 12,520 adverse reactions to hepatitis B vaccination were reported to the Vaccine Adverse Event Reporting System, with 14% of these reactions involving newborns and infants.

The fact is that the number of reports of complications following hepatitis B vaccination is growing steadily. The Association of American Physicians and Surgeons (AAPS) reports, "About one-third of the reactions were serious enough to result in an emergency room visit or hospitalization, and there were 440 deaths, including about 180 attributed to sudden infant death syndrome or SIDS."

The purpose of vaccinations is to reduce the risks of complications associated with the diseases they are designed to prevent. Complications from a vaccine should not outweigh those derived from the disease. And yet, according to Dr. Philip Incao, who has studied vaccinations and the immune system for three decades, in the case of hepatitis B..."the conclusion is obvious that the risks of hepatitis B vaccination far outweigh its benefits."

Dr. Jane M. Orient, executive director of the Association of American Physicians and Surgeons, puts the facts plainly. According to a recent federal government study, she says, "children younger than 14 are three times more likely to die or suffer adverse reactions after receiving hepatitis B vaccines than to catch the disease."

Is the Hepatitis B Vaccine Effective? Vaccine supporters claim that the development of an antibody response to the virus contained in the vaccine equals protection against the disease. So we are now vaccinating millions of children against hepatitis B to prevent them from contracting the disease later in life. But for this to happen, the level of antibodies that are supposed to be protective has to remain high for very long periods. The evidence proves that this is not happening.

A study published in the New England Journal of Medicine evaluated the persistence of anti-hepatitis-B antibodies in 773 homosexual men immunized against the virus. Of these, 635 produced antibodies. After five years, however, such antibodies no longer existed in 15% of the respondents, and their levels declined sharply – below levels deemed to be protective – in another 27%. In fact, hepatitis B developed in 55 men, and two individuals became carriers of the hepatitis B virus. Another study shows that after three years, 38% of individuals who initially responded to the hepatitis B immunization lost anti-hepatitis-B antibodies.

Why then are we needlessly vaccinating millions of children if by the time they’ll be adults and might be exposed to the virus, they won’t have the antibodies that are supposed to protect them? And, in any case, are these antibodies offering protection against the disease?

Adverse Reactions to Hepatitis B Vaccine. The National Vaccine Information Center, in its report on hepatitis B vaccination, cites 38 reports in the international medical literature presenting evidence that hepatitis B vaccination is causing chronic autoimmune and neurological disease in children and adults. Yet this is not information given in the vaccine manufacturer’s literature.

Tourbah et al. reported in a 1999 article published in the journal Neurology that eight patients developed encephalitis and central nervous system demyelinating disease within 10 weeks of receiving hepatitis B vaccination.

Further Readings: Articles in the medical literature associate the hepatitis B vaccine with complications affecting the nervous system and the joints as well as other adverse effects.

Measles/Mumps/Rubella (MMR) Vaccine

As with hepatitis B, physicians are notoriously reluctant to follow their own advice when it comes to measles vaccination. One study reported that obstetrician/gynecologists had the lowest vaccination rate among doctors for the German measles vaccine. Pediatricians didn’t fare much better. The authors attributed such findings to “fear of unforeseen vaccine reactions.”

The fact that the MMR vaccine is particularly ineffective, with a high percentage of those inoculated getting the disease, is undoubtedly a factor.

According to The New England Journal of Medicine, 60% of all measles cases among American schoolchildren between 1985 and 1986 occurred in those who were vaccinated.

The Journal of the American Medical Association published a study indicating that among 235 cases of student measles reported in Dane County, Wisconsin, in 1986, more than 96% had received a measles vaccine. A study reported in Morbidity and Mortality Weekly found that 58% of 1,600 cases of measles in Quebec, Canada, in 1989 occurred in those who had already been vaccinated. And the World Health Organization has conceded that those administered the measles vaccine have a 14 times greater likelihood of contracting the disease than those who remain unvaccinated.

Jamie Murphy, author of What Every Parent Should Know About Childhood Immunization, believes that the vaccine may in fact be causing the illness. "In one
and their (unvaccinated) contacts contracting mumps from the MMR vaccine, and reports of one in 1,044 vaccinees developing encephalitis.83,84

Dorey highlights the problem of shed vaccine virus, noting that it is incorrect to say that the MMR vaccine viruses are not infectious. According to a study published in the British Medical Journal, July 4, 1987, immunocompromised children should be kept away from MMR vaccinated children for two weeks after vaccination due to the...[possible shedding] of the virus.

These events of infection occur because the vaccines contain live virus which can grow in the body and are excreted by the body.85,86

**Measles Vaccine**

A study published in 1994 in the Archives of Internal Medicine evaluated all US and Canadian articles reporting measles outbreaks in schools and found that, on average, 77% of all measles cases in these outbreaks were occurring among vaccinated individuals. The authors concluded that “the apparent paradox is that as measles immunization rates rise manifest as other forms of disease with age. He asserts that quite a few diseases are associated with the measles vaccine, including “encephalopathies (brain damage), aseptic meningitis, cranial nerve palsy, learning disabilities, hyperkinesis and severe mental retardation...”79

Results of two separate studies by the Institute of Medicine, one in 1991 and another in 1994, showed there to be strong evidence that the MMR vaccine can cause acute arthritis, anaphylaxis, thrombocytopenia, and even death.80

Even the package insert accompanying the MMR vaccine says that the vaccine may lead to arthritis or arthralgia, either long-term or temporary.81 Meryl Dorey, editor of the Australian publication *Vaccination? The Choice is Yours* and president of the Australian Vaccination Network, points out that the MMR vaccine is also associated with Guillain-Barre paralysis, multiple sclerosis, and aseptic meningitis, a swelling of the lining of the brain, which can be fatal. “According to Japanese studies,” she notes, “one in 1,044 children who get this vaccine can get aseptic meningitis. It’s one of the reasons why Japan withdrew the use of the MMR vaccine in 1994.”82

Viera Scheinber, a retired research scientist, reports that “In April 1993, the Ministry of Health and Welfare in Japan decided to discontinue the use of measles, mumps, and rubella vaccine (Sawada et al., 1993). This decision was prompted by published reports of vaccinated children..."
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people on to their newborns disappear rapidly, leaving the babies susceptible to the infection in their first year of life, when they are more at risk of complications.

This difference in infants' immunity levels is reflected in a 1995 study published in the journal Pediatrics. Researchers found that 71% of 9-month-old infants and 95% of 12-month-olds had no detectable neutralizing measles antibodies in their blood. All infants with detectable measles antibodies at 9 or 12 months had mothers born before 1963, before the vaccine era.

Measles infection is still a severe disease in adults. A study published in the American Journal of Medicine in 1993 shows that, of 68 patients over 14 years old who developed measles, 33 required hospitalization. Of these, nine were admitted to the intensive care unit, six required mechanical ventilation, and two died. The authors concluded: "Measles in adults may result in severe, life-threatening complications that utilize substantial medical resources. Physicians need to appreciate the clinical presentations and manifestations of severe measles in adults and to provide measles vaccine to nonimmune adults during community-wide outbreaks." Again, immunization has failed to protect children from infection and has created a vulnerable population of infants and adults who are at risk of developing severe complications. What is the remedy proposed? Again — more vaccination!

Mumps Vaccine

Aseptic meningitis has been epidemiologically associated with receipt of the mumps vaccine. In 1989, it was finally determined that it was the strain of virus used in the vaccine that caused mumps meningitis. The virus isolated from patients who developed meningitis 21 days after injection was identical to that used in the vaccine.

Atypical mumps contracted after receipt of the vaccine is another problem. In 1980 reports surfaced of atypical mumps in previously vaccinated children, with symptoms including fever, appetite loss, nausea, and a generalized rash. The atypical mumps occurred when wild natural mumps virus circulated among unvaccinated children — a normal event associated with immune system development in humans. All the children contracting atypical mumps had been injected with viral vaccine five to seven years earlier.

Concerning the mumps vaccine's effectiveness, the scenario with mumps is very similar to that with measles. There are several studies reporting outbreaks of mumps occurring in populations with virtually complete vaccine coverage. Cheek et al., for example, writing in the Archives of Pediatric and Adolescent Medicine, report a mumps outbreak in a highly vaccinated (more than 95%) high school population. Fifty-three of 54 students who got the disease were vaccinated.

Another study reported an outbreak of mumps in a Tennessee school with 98% vaccine coverage, where 67 of 68 students who got mumps had been previously vaccinated. Thus, mumps cases in this instance were attributed mostly to vaccine failure.

While mumps infection is largely a benign disease when contracted during childhood, it becomes more dangerous in older children and adults, who are more susceptible to severe neurological, testicular, and ovarian complications from the infection. It is alarming to see that vaccination is clearly shifting the occurrence of this disease from young children toward those who are older.

Perhaps the boldest statement on the efficacy of the mumps vaccine in preventing the disease comes from the authors of a study conducted in Switzerland. They conducted an epidemiological analysis of mumps cases there and found a fivefold increase in the number of mumps cases from 1990 to 1993, especially in vaccinated children. Among the authors' conclusions was: "The Rubin [mumps] strain vaccines, which are the most commonly used in Switzerland, seem to have played an important role in the clear increase in mumps cases since 1990."

Rubella Vaccine

Unfortunately, rubella vaccination is similar to measles and mumps immunization in terms of lack of efficacy in preventing the targeted disease. A study published in the European Journal of Epidemiology shows that after the Swiss began a rubella mass vaccination campaign in 1985, the incidence of rubella remained unchanged during the period from 1987 to 1992. The authors concluded: "MMR mass vaccination has not interrupted the circulation of rubella virus in Switzerland."

Also, a study published in the Journal of the American Medical Association in 1981 shows that 15 years after receiving rubella vaccination, one in 11 children lost protection from the vaccine and became susceptible to reinfection. This is particularly worrisome because rubella infection is especially dangerous when contracted during pregnancy, since the fetus may develop malformations if exposed to the virus. Again, the lack of permanent immunity offered by vaccination is creating serious problems down the line.

Viera Scheibner has looked in depth into the research on rubella, and informs us: "As Cherry (1980) wrote, despite distribution of over 83 million doses of rubella vaccine since 1969, there were periodic upswings in incidence. There was also a shift in the age groups susceptible to rubella. "Essentially, we have controlled the disease in persons 14 years of age or younger but have given it a free hand in those 15 or older."

Scheibner adds: "In August 1991, the Institute of Medicine released a report on adverse effects of pertussis and rubella vaccines. The evidence indicated a causal relationship between RA 27/3 rubella vaccine and acute arthritis in 13% to 15% of adult women. Also some individuals were shown to go on to develop chronic arthritis."

Further Readings: Articles associate the MMR vaccine with adverse reactions affecting the nervous system, the GI tract, and joints.

In Part 3: The smallpox and rotavirus vaccines, provocation diseases associated with vaccines, economic, political and legal issues, and the right to refuse vaccination.

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