Vaccines are big business. The research firm Frost & Sullivan predicts that the world human vaccine market will take in more than $7 billion in sales this year. Along with this large market, vaccine manufacturers tout the miracle of vaccines in reducing the incidence of polio, diphtheria, pertussis, measles, tetanus, mumps, rubella, hepatitis and other illnesses that often strike children. There is no doubt that vaccines have dramatically reduced childhood illnesses; however, there is a dark side to the universal use of vaccines to control these illnesses. And the widespread use of vaccines has begun to be challenged by parent groups and physicians who recognize that although vaccines are important to public health, they can also injure. Children are especially at risk for injury from the multiple vaccines that are required for children to attend school in the United States, Canada and a number of other countries.

Yet according to Barbara Fisher of the National Vaccine Information Center (www.909shot.com) every state in the U.S. legally requires multiple vaccinations to attend public school, day care, college and even graduate school. Denial of health insurance, employment or government benefits for children can occur if vaccination laws are disregarded. In some cases parents who don’t comply with vaccination laws have been charged with child neglect and threatened with having their children taken from them.

Vaccines are considered the single most important tool in protecting public health. But in the United States vaccines have the second highest rate of adverse reactions (19% of all adverse reactions reported) of prescribed medicines. The National Vaccine Information Center indicates that between 1964 and 1992 the U.S. added six new vaccines to the mandatory vaccination program which already includes multiple vaccines, such as the DPT (diphtheria-pertussis-tetanus) and MMR (measles-mumps-rubella) vaccines. Most states now require children to receive up to 34 doses of up to 10 different vaccines. These vaccines are supposed to protect against a variety of important illnesses; however, the schedules for vaccination required for children have been criticized as contributing to immune suppression and leaving participants in these programs susceptible to opportunistic infections instead of resistant to infections.

Public health officials have been questioned for their championing of vaccines early in life to build immunity against infections that may be encountered later in life. Vaccines should be protecting against infectious diseases by establishing temporary immunity. To make this immunity more than a temporary effect multiple secondary or booster vaccines are required. When all of the primary and booster immunizations are added together or not spaced far enough apart, immune suppression can occur due to the assault on the
Autoimmune illnesses, opportunistic infections different from the infections being immunized against, chronic allergies and other conditions are rising at alarming rates in children receiving multiple vaccines. More and more physicians and scientists are now pointing to the scheduling of multiple vaccines as possibly playing an important role in these emerging illnesses. Chronic asthma is one of these illnesses. According to the CDC asthma has increased 52% in persons between the ages of 5 and 34, and rates of death due to asthma have risen 42% in the period between 1982 and 1992. A more recent study by the CDC indicates that asthma has doubled during the last 20 years and is now the most common disorder in children and adolescents. Among the children receiving multiple vaccines chronic asthma affects one child in seven in Great Britain and one in eight in Canada. The greatest increase has been in children under four years old. When researchers in New Zealand compared the rates of asthma in children that did not receive multiple vaccinations to rates in children receiving multiple vaccinations, those children who did not receive the vaccines did not present with asthma; whereas 23% of children receiving multiple vaccines had to have asthma consultations and 30% had consultations for other allergic illnesses. The researchers concluded that some component of the multiple vaccines received in childhood may have increased the risk of developing asthma in childhood.

In addition to asthma, children that have received multiple vaccines are at risk for autism, attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD). It is now estimated that at least two million children in the United States have these disorders, and by 1995 there were over 1.5 million children taking Ritalin as a treatment for these disorders. In California an investigation by the California Department of Developmental Services (www.dds.ca.gov) found that there was a 273% increase in the incidence of autism between 1987 and 1998, an increase in incidence far in excess compared to other childhood disabilities, such as cerebral palsy, epilepsy and mental retardation. Other states have reported similar increases in autism. A Maryland state agency reported that between 1993 and 1998 there was a 513% increase in autism; whereas the increase in the population of Maryland was only 7%. According to the Autism Autoimmunity Project (www.gti.net) similar explosive rates of increase in autism, ADD/ADHD have been found in at least 25 states that were surveyed under the American Disabilities Education Act. Are these increases linked to multiple childhood vaccinations? The Los Angeles foundation Cure Autism now reports that over one-half of the hundreds of calls each month to the foundation are from parents who report that their child became autistic after receiving vaccinations, usually following DPT or MMR multiple vaccines.

Another chronic autoimmune disorder that is on the increase in multiple vaccine recipients is juvenile type 1 diabetes. In New Zealand there was a 60% increase in
juvenile diabetes following a massive hepatitis B vaccination program for newborns. In Finland the incidence of juvenile diabetes increased 147% in children under five after the introduction of three new vaccines for children in the late 1970s. Then in the late 1980s addition of a live MMR vaccine and an experimental vaccine (Hib) resulted in another 62% increase in the incidence of juvenile diabetes in children 3 months or older who received the new multiple vaccines. Interestingly, a former NIH investigator, Dr. J. B. Classen, has proposed that the increase in type 1 juvenile diabetes associated with multiple childhood vaccines may be avoidable by changing the regimen by which multiple vaccines are given in childhood.

Autoimmune and fatiguing diseases can also occur in adults that receive vaccines. Alarmed over the world-wide rate of hepatitis B infections, the U.S. and Canada have pushed the hepatitis B (hepB) vaccine, even though hepatitis B infections in North America were reported to be less than 10,000 in 1997, with only about 300 occurring in children under the age of 14. Almost all of these patients recover from their hepatitis B infections and have permanent immunity to the virus. In the U.S. and Canada health many care and other workers are required to get a hepatitis B vaccination, and a new recombinant DNA hepB vaccine has been promoted as a safe, effective vaccine against hepatitis B. However, this new hepB vaccine may cause chronic illnesses, such as chronic fatigue syndrome (CFS), multiple sclerosis, rheumatoid arthritis and other autoimmune diseases. Professor Bonnie Dunbar of Baylor College of Medicine in Houston reports that the hepB vaccine may cause autoimmune disease by tricking the immune system to attack itself. The reason for this may reside in the amino acid sequences programmed by the recombinant DNA vaccine. Some of these polypeptide sequences appear to mimic some of the normal sequences on the cell surfaces of nerve cells present in the human brain. Thus immunization with the hepB recombinant vaccine may increase the risk of autoimmunity. Recently France became the first country to terminate a hepB vaccine program. The French Ministry of Health acted when complaints of multiple sclerosis, rheumatoid arthritis and other illnesses in patients who received the hepB vaccine were reported.

After the Persian Gulf War, more than 150,000 veterans came down with Gulf War illnesses (GWI), chronic fatiguing illnesses similar to CFS or myalgic encephalomyelitis. Although most of the research attention on the causes of GWI have focused on chemical and radiological exposures, at the Institute for Molecular Medicine (www.immed.org) we found and published that over 40% of GWI patients had an unusual infection caused by *Mycoplasma fermentans*, a small bacteria without a rigid polysaccharide cell wall that has been implicated in a variety of chronic illnesses. Although this result was hotly denied by the Department of Defense, a large study conducted by the Dept. of Veterans’ Affairs found almost the exact same result in over 1,500 cases of GWI. Also, other research groups have now published similar findings on *M. fermentans* infections in GWI patients. In many cases, the veterans' immediate family members appear to have slowly developed similar signs and symptoms to GWI. One estimate derived from U.S. Senate inquiries of >1,200 GWI families indicated that approximately 77% of spouses and 65% of children born after the war now have the signs and symptoms of GWI. Not every family member
developed a GWI-like illness, but those that did had similar signs and symptoms and similar infections, such as the mycoplasmal infection described above.

Where did these infections come from? The most likely sources for the immune disturbances and chronic bacterial infections found in GWI patients are the multiple vaccines that were used in a short period during deployment. Most deployed personnel received up to 30 vaccinations, some probably experimental and administered without proper informed consent, in a two to three day period during deployment. In a British study funded by the Department of Defense and published in the British medical journal *Lancet* an association was found between GWI and the multiple vaccines that were administered to British veterans. In the U.S. there have been GWI signs and symptoms in personnel who have received the anthrax vaccine. In some cases this has resulted in chronic illnesses in as many as 7-10\% of personnel receiving the vaccine. These chronic illnesses, including CFS/ME and other illnesses, are very similar to the diagnosis of GWI.

How could multiple vaccines contribute to chronic illnesses? Receiving multiple vaccines in a short period of time can cause immune suppression, and such individuals may be at much higher risk for opportunistic infections than a similar unimmunized population. Also, undetectable microorganism contaminants in vaccines could have resulted in illness and may have been more likely to do so in chemically exposed individuals or in those who received multiple vaccines in a short period of time. Microorganism contamination, such as with mycoplasmas, is a relatively common finding in many commercial vaccines, and in one study in the journal *Vaccine* in 1986 commercial vaccine contamination with mycoplasma species was found in ~6\% of the commercial vaccine lots tested. Thus the multiple vaccines used in the Gulf War should be considered as a possible source of the chronic infections found in GWI patients.

Could the civilian diseases described above that are related to multiple vaccinations also be caused by microorganism infections similar to those found in Gulf War veterans? This is certainly possible, and we think quite probable. At the Institute for Molecular Medicine we have been studying various chronic fatiguing illnesses like CFS/ME and fibromyalgia syndrome and also autoimmune diseases like MS, rheumatoid arthritis, autism, ADHD, among others. These are illnesses that are often seen in children and adults after receiving multiple vaccines. Over one-half of these patients with these diagnoses have identifiable chronic infections, including mycoplasmal infections and other bacterial infections and viral infections. Most patients had multiple infections, which could be the distinguishing difference between people who become sick and those that do not.

Of course, not every one who comes down with a chronic illness will have the same type of infection, and there may be other causes of these fatiguing and autoimmune diseases, but we feel quite strongly that patients with chronic fatiguing and autoimmune illnesses should be tested, and if positive for pathogenic chronic infections, they should be treated. If you think that you or your children have a chronic illness that could be related to multiple vaccines or just exposure to others that may have illnesses, you can be tested at

Finally, you have the right to know the risk of injury in any medical procedure, including vaccination, and your physician is required by law to provide you with vaccine and risk/benefit information before you or your children are vaccinated. If you or your child are injured after receiving vaccines, your physician is required by law to report injuries and deaths that occur within 30 days after vaccination to U.S. health authorities. Children injured as a result of receiving vaccines may be entitled to benefits under the National Childhood Vaccine Injury Act of 1986. In many states parents can withhold their children from government mandated vaccination programs if they can demonstrate that it is against their religious beliefs to have their children vaccinated against their will. It is now time to seriously consider whether current state mandatory vaccination laws and federal vaccination policies are inconsistent with the rights of citizens to be subject to medical procedures that carry a risk of injury or death without proper informed consent. Informed consent is the cornerstone of our medical bioethics, and its blatant disregard by the vaccine promoters needs to be corrected so that every citizen has the freedom to make informed, voluntary health care decisions about procedures that could place them or their family members at risk.

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