Several pro-life publications in the past few years have confirmed a link between certain viral vaccines and aborted babies. The vaccines involved are in use today, most of them as childhood vaccinations. This vaccine-abortion link was news to me, a family physician, and may be surprising to you. Certainly it is disturbing and compels us as Christians to understand and address this moral problem.

In this article I will discuss the history of the use of human fetal tissue in vaccine production, suggest ethical alternatives to these tainted vaccines, and discuss the moral implications of their use. This article only addresses the immorality of using aborted babies for vaccine development; it does not discuss any safety concerns that some may have with vaccines in general.

**History of Use of Aborted Babies in Vaccine Research:**

In the 1960s, Dr. Leonard Hayflick at the Wistar Institute located in Philadelphia, Pennsylvania began working with aborted babies in an attempt to obtain human cell strains that would provide a culture medium for the growth of viruses. These viruses, grown in the human cell culture (also called human diploid cell cultures), could then be used to make vaccines to protect against various illnesses such as polio and rubella.¹ Hayflick stated, "The isolation and characterization of human diploid cell strains from fetal tissue make this type of cell available as a substrate for the production of live virus vaccines." ²

Cell strains from fetal organs can multiply many times and provide a cell source for many decades, serving as an ideal culture medium due to their longevity. One aborted baby can be the source of a cell strain with a potential yield of about 20 million metric tons of cells, which can be stored frozen for many years. The availability of aborted babies also presents an economic advantage over animal sources of cell cultures such as monkey, chicken, duck, dog, or rabbit, since animals must be housed, fed, maintained, and bred.³

Abortion was illegal in the United States at the time Dr. Hayflick was conducting his research, so Sweden provided a source for legal abortions. Healthy babies were sought for this research project by screening the aborting parents for familial diseases or cancer. A research assistant was on duty at the time of the abortion to quickly collect organs from the baby and prepare them for rapid and sterile transport to Pennsylvania. Erling Norrby, the intern working under Dr. Sven Gard who supplied the babies, reported, "One of my duties as a young student in the laboratory in Stockholm was to dissect human fetuses from legal abortions and send organs to the Wistar Institute. Such material was the source of many..."
important studies of cell lines at the Institute, such as Leonard Hayflick’s study of WI--38 cells.”

“When we collected the organs, this was done immediately after the legal abortion. We were on duty to immediately perform the sampling and to arrange for as rapid transport as possible over the Atlantic Ocean. The fetal material arrived by car from the nearby hospital to our laboratory enwrapped in a green surgical cloth. Maximal sterility was critical to allow an outgrowth of fetal cells without any contamination after the transport under cold conditions to the Wistar Institute.”

It was vital that fetal tissue be immediately processed and preserved to maintain cell integrity. Dr. C. Ward Kischer, PhD, who is a leading national authority on human embryology, states, “In order to sustain 95% of the cells, the live tissue would need to be preserved within 5 minutes of the abortion. Within an hour the cells would continue to deteriorate, rendering the specimens useless.”

It is important to understand the close connection between the abortionist and the researcher obtaining the fetal organs for research. The intent of the researcher was to use the aborted babies for development of vaccines. The aborting parents were screened for health and their baby chosen for research material. The need for fresh fetal tissue dictated that the abortion be pre-arranged between abortionist and researcher.

The opportunity for the mother of the aborted baby to be influenced toward abortion is obvious. Polls have shown that some mothers who are considering abortion would be more likely to follow through with it if they knew they could donate their baby for research. Investigations into the fetal tissue market have revealed that abortion facilities providing aborted babies to researchers are offered a fee by research facilities so that fetal organs can be harvested on-site. Opportunity abounds for the abortion industry to be encouraged and funded by human fetal tissue research.

In 1962, Dr. Hayflick successfully developed a cell line from the lungs of an aborted female 3-month old fetus, whose married parents were healthy and who felt they had too many children. Dr. Stanley Plotkin, who worked on the rubella vaccine at Wistar Institute, said “This fetus was chosen by Dr. Sven Gard, specifically for this purpose. Both parents are known... the abortion was done because they felt they had too many children. There were no familial diseases in the history of either parent, and no history of cancer specifically in the families.” This cell line was named WI-38, for Wistar Institute and the 38th fetal sample used in this research.

WI-38 cells are used extensively to this day by several pharmaceutical companies in vaccine production and are sold by Coriell Cell Repositories at the following link: http://ccr.coriell.org/Sections/Search/Search.aspx?PgId=165&q=WI-38

In 1966, the Medical Research Council in Britain developed another cell line from another baby, this time from the lungs of a male 14-week old fetus removed for “psychiatric” reasons from a 27 year old woman with a normal family history. This cell line was named MRC-5. It is used extensively in current vaccine production, and its history is described by its vendor, Coriell Cell Repositories, at the following link:

Merck, a prominent pharmaceutical company, issued this statement regarding their chickenpox vaccine: “Merck, as well as other vaccine manufacturers, uses two well-established human cell lines to grow the virus for selected vaccines. The FDA has approved the use of these cell lines for the production of Merck vaccines. Each of these cell lines originated from separate aborted pregnancies from which tissue was obtained, and each has been maintained under strict federal guidelines since the 1960s.”

Twenty-one separate abortions provided WI-I through WI-25 (Wistar Institute, fetal samples numbered 1-25) cell strains, but Hayflick achieved his successful cell strain with WI-38. When the rubella epidemic struck in 1964, the Wistar Institute worked with American abortionists to collect and dissect aborted babies to obtain the rubella virus for vaccine development, involving almost 70 abortions. The 27th baby in the rubella project provided the live virus that was used in the vaccine. Thus the rubella virus was named RA 27/3 (Rubella, Abortus, 27th fetus, 3rd tissue explant). The virus was then grown in WI-38 cells for vaccine production.

There are ongoing efforts to develop other cell lines from aborted babies, as the market for them has proved so successful and the pharmaceutical industry perceives public acceptance. The WI-38 and MRC-5 lines will die after a finite number of population doublings and will require replacements. IMR-90 was developed as a future alternative to WI-38 from a 16-week old aborted female fetus in 1975. PER C6 was obtained from an 18-week old fetus aborted in 1985, developed by Dutch pharmaceutical Crucell in 1995, and has been licensed by many pharmaceutical companies who desire to develop new vaccines. Other cell lines have been developed from other aborted babies.

**Vaccines that Use Aborted Fetal Cells:**

Vaccines in current use which were made from these fetal cell lines include the following: chickenpox vaccine, rubella vaccine, hepatitis A vaccine, the polio portion of Pentacel (a combination shot for DTaP +Polio+ HiB), rabies vaccine, smallpox vaccine, and the shingles vaccine. See Table 1.

Because these vaccines are from viruses grown in human fetal cells, the vaccines contain fetal DNA and other fetal cellular proteins. This means that each time an individual is immunized with one of these vaccines, they receive a portion of the aborted baby's cell contents from the cell lines used for these vaccines. For example, Merck states that each dose of Varivax and Zostavax contains “residual components of MRC-5 cells including DNA and protein”. GlaxoSmithKline states that Havrix contains “residual MRC5 cellular protein”. The CDC states that MRC-5 cellular protein is found in Havrix, Vaqta, Twinrix, Proquad, Imovax, and Varivax.
Table 1 – U.S. Vaccines Using Aborted Babies (13,14,15,16,17,18,19,20)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Vaccine</th>
<th>Manufacturer</th>
<th>Fetal Cell Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polio, DTaP, HiB</td>
<td>Pentacel</td>
<td>Sanofi Pasteur</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>Varivax</td>
<td>Merck</td>
<td>MRC-5, WI-38</td>
</tr>
<tr>
<td>Rubella component of MMR*</td>
<td>MMR II</td>
<td>Merck</td>
<td>RA 27/3, WI-38</td>
</tr>
<tr>
<td>Rubella and chickenpox component of MMR-V**</td>
<td>Proquad</td>
<td>Merck</td>
<td>RA 27/3, MRC-5, WI-38</td>
</tr>
<tr>
<td>Shingles</td>
<td>Zostavax</td>
<td>Merck</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Rabies</td>
<td>Imovax</td>
<td>Sanofi Pasteur</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>Havrix</td>
<td>GlaxoSmithKline</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>Vaqta</td>
<td>Merck</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Hepatitis A component of hepatitis A/B combo</td>
<td>Twinrix</td>
<td>GlaxoSmithKline</td>
<td>MRC-5</td>
</tr>
<tr>
<td>Smallpox</td>
<td>Acambis 1000</td>
<td>Acambis</td>
<td>MRC-5</td>
</tr>
</tbody>
</table>

*MMR=Measles, Mumps, Rubella, **MMR-V=Measles, Mumps, Rubella-Varicella

Ethical Vaccine Alternatives (made from sources other than aborted babies):

In the United States currently there is no alternative for chickenpox, rubella, shingles, or hepatitis A vaccines. Japan produces ethical alternatives for rubella vaccine (developed from rabbit cells) and hepatitis A vaccine (developed from monkey kidney) and if these were made available in the U.S. could provide moral alternatives.13,19

Because measles and mumps vaccinations are combined with rubella in the MMR vaccine, there is no availability of immunizations against measles and mumps even though those components of the MMR are made ethically using chick embryo.17 Until recently, Merck did produce a single measles and a single mumps shot. There was a limited market for them as MMR is used so extensively. Production was stopped, but if started again could give parents a source of measles and mumps vaccinations that do not contain the tainted rubella portion.

Table 2-- U.S. Produced Ethical Alternative Vaccines (13,14,15,16,17,28,19,20)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Vaccine</th>
<th>Manufacturer</th>
<th>Cell line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polio</td>
<td>IPOL</td>
<td>Sanofi Pasteur</td>
<td>Monkey (Vero)</td>
</tr>
<tr>
<td>Polio, DTaP, HepB</td>
<td>Pediarix</td>
<td>GlaxoSmithKline</td>
<td>Monkey (Vero)</td>
</tr>
<tr>
<td>Rabies</td>
<td>RabAvert</td>
<td>Chiron</td>
<td>Chick embryo</td>
</tr>
<tr>
<td>Smallpox</td>
<td>Acambis 2000</td>
<td>Sanofi Pasteur</td>
<td>Monkey (Vero)</td>
</tr>
<tr>
<td>Mumps*</td>
<td>MumpsVax</td>
<td>Merck</td>
<td>Chick embryo</td>
</tr>
<tr>
<td>Measles*</td>
<td>Attenuvax</td>
<td>Merck</td>
<td>Chick embryo</td>
</tr>
</tbody>
</table>

*Merck recently stopped production

What Parents Need to Know:

In my opinion, the most important viral illness that has no ethical vaccine alternative is rubella. Merck, producer of the current MMR vaccine, states that the vaccine uses “Wistar RA 27/3 strain of live attenuated rubella virus propagated in WI-38 human diploid lung...
fibroblasts”. Because the tainted rubella vaccine is given in one shot with measles and mumps (MMR), there is no availability of ethical measles or mumps vaccines. All three diseases (rubella, measles, and mumps) can cause serious health risks. If a pregnant woman contracts rubella early in pregnancy, her baby has a 25-50% chance of developing Congenital Rubella Syndrome, which involves deafness, eye abnormalities, heart defects, mental retardation, and other problems. Measles can cause pneumonia, encephalitis (infection of the brain), and problems with pregnancy. Mumps can rarely cause meningitis, encephalitis, infertility, pancreatitis, hearing loss, and miscarriage. The use of vaccines against these viruses has drastically reduced the incidence of these three diseases in the United States.

Merck states that the chickenpox (varicella) vaccine, introduced in 1995, is “propagated in human diploid cell cultures (WI-38)”. There is some controversy associated with this vaccine as there are questions of whether or not the vaccine provides lifelong immunity to chickenpox, and whether or not it increases the risk of adult chickenpox and shingles. Adult chickenpox is much more serious than childhood disease, so if the vaccine does not protect over an individual’s lifespan, the shots could actually increase risk of serious disease. The vaccine also has a significant failure rate of around 10-20%, wherein vaccinated children still contract chickenpox, although often experiencing fewer lesions than unvaccinated children. Because of these unanswered questions, and the fact that most childhood chickenpox is not life threatening, I think the varicella vaccine does not urgently require an alternative.

The hepatitis A vaccine was introduced in 1996. According to one manufacturer, GlaxoSmithKline, the vaccine “is propagated in MRC-5 human diploid cells”. As with most viral illnesses, children are most likely to be infected but have few symptoms and thus spread the illness throughout a community; thus the vaccine campaign has focused on immunizing children. Hepatitis A is spread via the fecal-oral route and in the United States most cases occur in the western and southwestern states. Outbreaks occur from food sources, users of drugs, men who have sex with men, and travel to countries where the disease is endemic. Acute liver failure is the most serious complication of hepatitis A and is rare, killing 100 people annually in the US. More common symptoms include fever, loss of appetite, nausea, abdominal pain, dark urine and jaundice. The virus is more serious for those with chronic liver disease or adults older than 50. An ethical vaccine against this virus would be valuable but currently is not available.

To assist parents in sorting out which vaccinations they want their children to have, Children of God for Life maintains a chart listing Centers for Disease Control and Prevention (CDC) vaccine recommendations based on age, and whether or not the vaccines are ethical. This chart would be helpful to bring in to your child’s vaccination appointments to clarify which shots you desire. Please visit: www.cogforlife.org/vaccineschedulecdc.pdf.
School Mandated Vaccines and Obtaining an Exemption:

Each state decides which vaccinations it considers mandatory for participation in school, preschool, and some daycare facilities. The CDC lists these requirements at: http://www.immunizationinfo.org/vaccines/state-requirements.

Religious exemptions are allowed in 48 states (West Virginia and Mississippi do not). Parents usually have to submit the request in a prescribed format, using a state-specific form stating that they object to the immunization based on religious beliefs. To obtain the appropriate forms parents can contact their state health department. This contact information is listed at the above-mentioned link. It would be important to note on the form and also to verbally inform school officials that you are not opposed to all vaccinations but are abstaining from specific ones due to the unethical source (abortion) of vaccines against chickenpox, hepatitis A, etc. As we explain why our children are not inoculated with these tainted vaccines, we can work hard to obtain ethical alternatives, as most of the vaccines are important for our individual and societal health. We can successfully attain ethical products by taking a moral stand, such as what happened when smallpox vaccines were mass-produced after September 11 terrorist attacks. When enough public resistance to the abortion-tainted smallpox vaccine was expressed, an ethical version was then created.13

A Call to Action:

The only recourse I have is to boycott these products. How else will the pharmaceutical companies be influenced to produce ethical vaccines from animal cells rather than aborted babies? It is not sufficient for us to voice our displeasure while still using the product. Until we create a market for moral viral vaccines by boycotting unethical vaccines, pharmaceutical companies will have no reason to provide moral alternatives.

Here are some ways to effect change:

- Inform your medical providers which vaccines you cannot use and why.
- Spread the word in your circles of influence about boycotting tainted vaccines so we can create enough pressure to influence the pharmaceutical industry to make moral alternatives.
- Contact your Congressmen about sponsoring the Fair Labeling Informed Consent Act. This legislation would require pharmaceutical companies to fully disclose to consumers and medical professionals whenever aborted fetal materials are used in vaccines or drugs (see http://cogforlife.org/flica.htm).
- Support the efforts of pro-life organizations such as Children of God for Life in their advocacy for moral products by signing their petition at http://www.cogforlife.org/campaignpetition.htm. Stay updated via their Facebook page.
Moral Implications of Vaccines Made From Aborted Babies:

Significant debate has been carried out among Christians regarding whether or not it is acceptable to use these vaccines made from aborted babies. Some ethicists argue that parents have a moral obligation to protect their children and society from illnesses that are preventable, even if it means using a vaccine developed from aborted children. Although most Christian ethicists would agree that abortion is evil, some believe that passive participation via use of a product obtained from aborted babies is acceptable because the abortion was performed long ago, or because the abortionists or researchers are to blame for the evil of the abortion.

As a family physician I strongly believe in the importance and effectiveness of vaccinations in preventing serious illnesses. The incidence of serious complications and death from illnesses that vaccines protect against has dramatically decreased as a result of vaccine programs. Due to the effectiveness of vaccine campaigns, many illnesses are almost unheard of in the U.S. now (rubella, for example). But the continued prevention of outbreaks of serious viral illnesses depends on continued vaccination. Health care workers and international travelers or missionaries especially need vaccinations to protect themselves and their families.

I am a doctor and a mother of young children who desires to keep my children safe. But above these callings, I am a Christian, and as such I cannot use a product that was developed from the abortion industry, even if it means great inconvenience or even danger for my family. The evil performed when these babies were killed decades ago is sufficient to make these tainted vaccines morally unacceptable. The passage of time does not diminish a sinful act. The close working relationship between abortionists and researchers introduces even more reason to abstain from participation in the fetal tissue market, and we have discussed how the practice of developing new cell lines continues. Now fetal cells are used in development of food products and facial care products¹⁴ as the use of human fetal cells for vaccines has proven so successful and profitable, with so little public outcry.

The argument that the abortionists and researchers are more blameworthy for these aborted babies than a consumer who uses a vaccine is correct. But when we as parents/consumers use these products, we are giving our stamp of approval and a nod of acceptance to the practice of using aborted babies for vaccine development. In 2005, the Vatican stated, “...the aspect of passive cooperation is that which stands out most. It is up to the faithful and citizens of upright conscience (fathers of families, doctors) to oppose, even by making an objection of conscience, the ever more widespread attacks against life and the “culture of death” which underlies them. From this point of view, the use of vaccines whose production is connected with procured abortion constitutes at least a mediate remote passive material cooperation to the abortion, and an immediate passive material cooperation with regard to their marketing. Furthermore, on a cultural level, the use of such vaccines
contributes in the creation of a generalized social consensus to the operation of the pharmaceutical industries which produce them in an immoral way.”

People sometimes justify the use of these tainted vaccines by arguing that it is comparable to the good obtained from organs donated from someone who dies from a tragic death. However, an aborted child does not give his consent to be killed and dissected, whereas all organ donors must give consent regarding organ donation prior to their death. What would our societal response be if we discovered these vaccines had been developed from Jews killed in a Nazi concentration camp? Would there be more outrage because a Holocaust crime seems more evil, because they involve humans living outside the womb rather than inside the womb? The Holocaust took the lives of six million people; in the United States each year more than one million babies are killed by abortion. How can we say that the pharmaceutical industry is not contributing to this evil? And how can we participate in this evil?

No matter what “good” may be engineered from an evil, the evil act remains evil, and any participation in that evil is immoral. We cannot justify the evil of abortion by saying it provides the “good” of vaccines that protect our children and society. I do not find anywhere in Scripture that says we have a moral obligation or justification to protect ourselves at the expense of another human being. Promoting the greatest good for the greatest number of people at the expense of an innocent minority is utilitarianism; we should not violate the sanctity of human life.
Endnotes


4 Personal email, from Dr. Erling Norrby to Dr. Rene Leiva (August 2006). National Catholic Bioethics Quarterly.


7 Written Statement from Merck, April 6, 2011.


19 US Fetal Derived Vaccines. (2000). The Campaign for Ethical Vaccines (US information),
http://www.dgwsoft.co.uk/homepages/vaccines/usvaccines.html

20 Vaccine Excipient and Media Summary. (2010). Centers for Disease Control,

21 Vaccines and Preventable Diseases: Rubella Disease In---Short (German Measles),

22 Overview of Measles Disease, http://www.cdc.gov/measles/about/overview.html


