

## Childhood Practice, Childhood Disease

### UPDATE ON THE PERTUSSIS IN DPT VACCINE

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#### Introduction

At the American Chiropractic Association's annual convention in 1993, it was resolved that vaccinations have been shown to be cost effective and clinically practical public health preventive procedure for certain viral and microbial diseases as demonstrated by the scientific community. However, the ACA and the scientific community also acknowledge that the use of vaccines is not without risk.<sup>1</sup>

It seems a perfect marriage for a profession that emphasized prevention to embrace the science and philosophy of immunization. The philosophy of prevention should ring familiar. The science, however, has always been questioned. Probably the most serious question would involve toxic side effects of the whole cell pertussis vaccine and the subsequent establishment of the National Vaccine Injury Compensation Program in 1986.<sup>2</sup>

This paper will examine the actual risk of the whole cell pertussis vaccine and the alternative of an acellular vaccine versus chiropractic correctness of no immunizations at all.

#### Discussion

Two years ago, a random sample of American chiropractors were asked to respond to the following statement: "There is no scientific proof that immunization prevents infectious disease." A full 60 percent were in agreement or indifferent to the statement.<sup>3</sup> The science would indicate that small pox was eradicated from the world in the late '70s as a direct result of immunization. Also polio, after an intense vaccination campaign, has been absent from the Americas since August 1991.<sup>4</sup> Each year immunization programs prevent 2.9 million deaths from measles, neonatal tetanus, and pertussis, as well as 440,000 cases of polio world wide. This stands in sharp contrast to the five million children who died from vaccine-preventable diseases in the mid 1970s when only five percent of the world's children were immunized.<sup>5</sup> With all this success, the childhood immunization initiative has fallen under attack in the past decade. The culprit? The whole cell pertussis vaccine and the belief that it can cause brain damage, a problem once believed to be insignificant when compared to the overall benefit of the vaccine.<sup>6</sup>

The whole cell pertussis vaccine is administered at two, four, and six months of age.<sup>7</sup> During the first six months of life, neurologic disease such as idiopathic epilepsy and infantile myoclonic seizures show themselves. The prevalence of these neurologic deficits is the same whether the children are immunized or not.<sup>8</sup>

Recently, three studies which involved 230,000 children and 713,000 immunizations found no

casual relationship between the whole cell pertussis vaccine and permanent neurological illness.<sup>9-12</sup> Furthermore, the National Childhood Encephalopathy study indicates that the pertussis vaccine has no causative role in brain damage whatsoever.

The whole cell pertussis vaccine can cause high fever, swelling, persistent uncontrollable crying, and hypo/hypertonic responsive state,<sup>13</sup> symptoms that are not desirable of any vaccine.

The temporary uncomfortable reaction associated with the whole cell pertussis vaccine should not warrant a total disregard for vaccination. It should inspire a search for a noninvasive form of immunity. A form discovered in Japan, an acellular pertussis vaccine that is far less invasive, appears to be the answer. In recent studies, the efficacy of the acellular vaccine has shown to be up to the standards acceptable for proper immunization.<sup>14</sup> So do we have an alternative to the whole cell pertussis vaccine that is equally effective with fewer side effects?<sup>15</sup>

### Conclusion

From the time initial research begins, to the introduction of a new vaccine, 10 years easily pass. Pharmaceutical firms are profit-driven. Commercial manufacturers pursue the development of vaccines for which there is an adequate return. As physicians, that return would be a less invasive vaccine; a vaccine in which uncontrollable crying is not coincidentally followed by the development of idiopathic epilepsy.

Acceptance of the American Chiropractic Association's resolution must transcend party lines. Immunization by vaccination should involve the least invasive vaccine available. The acellular pertussis vaccine meets that criteria.

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