

# Childhood Vaccination...

## Emotional choice or logical decision?

### I choose not to vaccinate my child because vaccinations have been linked to autism...

#### Emotional choice...

In 1998, Dr. Andrew Wakefield authored a paper published in the British version of *The Lancet* [1], a very well respected medical journal, linking the MMR\* vaccine with autism. In 2010, Dr. Andrew Wakefield was stripped of his medical license in the UK because he falsified the data in this article to make it look like there was a link between MMR vaccine and autism, when no link existed [2,3].

#### Logical decision...

In 2004, the Cochrane group reviewed 139 studies of MMR vaccine, and concluded there is “no credible evidence of an involvement of MMR with autism” [4].

For more information go to:

<http://www.cdc.gov/vaccines/spec-grps/hcp/downloads/vacsafe-mmr-color-office.pdf>

### I choose not to vaccinate my child because vaccines contain mercury...

#### Emotional choice...

*Methylmercury* is poisonous when it accumulates in the body. However, the preservative thimerosal, found in some vaccines, contains *ethylmercury*. *Ethylmercury* is easily excreted from the body, even in very young infants [5].

A single 0.5 mL dose of thimerosal-preserved influenza vaccine contains 50 mcg of *ethylmercury*, but one 170 g can of white tuna contains 85 mcg of *methylmercury* [6,7]!

#### Logical decision...

In Canada, there are only two vaccinations recommended for children that contain thimerosal: annual influenza/H1N1 and hepatitis B vaccine. To avoid exposing developing babies and premature babies to any form of mercury, thimerosal-free vaccinations may be available for pregnant women and premature infants.

For more information go to:

[http://www.phac-aspc.gc.ca/im/q\\_a\\_thimerosal-eng.php](http://www.phac-aspc.gc.ca/im/q_a_thimerosal-eng.php)

### I choose not to vaccinate my child because serious reactions can occur...

#### Emotional choice...

The only known serious reaction to be related to vaccination is a severe allergy. Severe allergy is very rare, reported to be <1/million in Canada [8]. In Canada, all providers who administer vaccines must be trained to recognize and treat a severe allergy. Other serious conditions have been reported to occur after vaccination. For example, Guillain-Barré syndrome, sudden infant death syndrome, multiple sclerosis, or asthma. All of these reports are taken seriously and investigated. Currently, none of these conditions are linked to vaccination.

#### Logical decision...

Canada has a comprehensive system to collect and investigate vaccine reactions. Canada also partners with other countries to ensure vaccine safety. To read about vaccination safety in Canada go to: <http://www.phac-aspc.gc.ca/im/vs-sv/index-eng.php>

For more information go to:

<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/misconception-eng.php>

<http://www.cdc.gov/vaccinesafety/Vaccines/Index1.html>

### I choose not to vaccinate my child because in Canada my child is not likely to contract these diseases...

#### Emotional choice...

It is true that vaccine preventable diseases in Canada occur at a low rate. However, outbreaks of disease do still occur. When an outbreak occurs, it is often from non-vaccinated individuals who either live in Canada or travel to Canada from a foreign country. When vaccine-preventable disease occurs, there is a high rate of hospitalization, complications, and death. Parents who have lost a child to a vaccine preventable disease have started to share their stories so you don't make the same mistake. To hear their stories go to: <http://www.immunize.org/reports/>

#### Logical decision...

Your non-immunized child may be a risk to: children too young to be vaccinated, those who cannot be vaccinated due to a low immune system (for example, cancer patients), and those who did not develop immunity despite being vaccinated. To read reports of how non-immunized children have put their own and others' health at risk go to: <http://www.immunize.org/catg.d/p2069.pdf>

For more information go to:

<http://www.phac-aspc.gc.ca/im/vs-sv/factsfigs-eng.php#3>

## I choose not to vaccinate my child because the vaccine will cause the disease...

### Emotional choice...

Live vaccinations can cause a very mild form of the disease. Examples of live vaccines are MMR\* and Varicella (chicken pox). Only 0.04% of children who receive the Varicella vaccine will develop a mild rash, compared to virtually 100% of children exposed to chicken pox infection. Children with a decreased immune system may not be able to receive a live vaccination.

For more information go to:

<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/immuniz-eng.php>

### Logical decision...

Most vaccinations, for example the annual influenza vaccine, contain only parts of the virus or bacteria that cause the disease. Therefore it is impossible to contract the disease from the vaccine. Since vaccines are only 80-99% effective and they take 1-2 weeks to work, most people who contract the disease they were just vaccinated against were either exposed to the disease before they developed immunity or they failed to develop immunity.

## I choose not to vaccinate my child because their immune system will be harmed...

### Emotional choice...

Childhood vaccinations expose children to approximately 150 antigens. Antigens are small parts of viruses or bacteria that stimulate our immune system to develop immunity against disease. Antigens are found in naturally occurring bacteria and viruses, and in vaccines. Experts estimate that infants are exposed to between 2,000 and 6,000 antigens each day – most of these are from the healthy bacteria that live in our gut [9]! So the immune system of infants and children are easily able to cope with 150 antigens from vaccines.

### Logical decision...

Spacing out or delaying vaccinations can put your child at risk of contracting a preventable disease. Minor acute illness with or without a fever, such as a cold or ear infection, are not a reason to delay vaccination.

For more information go to:

<http://www.immunize.org/concerns/multi.asp>

## I choose not to vaccinate my child because natural immunity is better...

### Emotional choice...

TRUE! A natural infection does *usually* confer better immunity compared to the immunity developed after vaccination. However, the price your child may pay for natural immunity could be a complication of the natural disease. Also, while your child is waiting to develop natural immunity, they may be a risk to other non-immune children and adults (see page 1).

### Logical decision...

Preventing a disease through vaccination also prevents complications of that same disease. For example, in children who contract natural measles infection 1/10 will develop pneumonia or ear infection, 1/1000 will develop encephalitis (swelling of the brain) that may cause permanent brain damage and 1/3000 will die [10].

\*MMR = measles, mumps, rubella vaccine

### For more information go to:

- Immunization Action Coalition Website [http://www.immunize.org/concerns/comm\\_talk.asp](http://www.immunize.org/concerns/comm_talk.asp)
- Health Canada Immunization & Vaccine Website <http://www.phac-aspc.gc.ca/im/index-eng.php>

### References:

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