Polio Vaccine

What sort of vaccine is it?

In February 2002 the vaccine we use changed from the oral polio vaccine (OPV) to the inactivated polio vaccine (IPV). This is an inactivated (not live) vaccine that contains polio viruses types I, II and III. These are grown on monkey kidney cells and inactivated with formaldehyde. It is given either as one injection in combination with diphtheria, tetanus and pertussis vaccines (DTaP-IPV) / (dTap-IPV) or on its own (IPV).

The main advantage of IPV over OPV is that it is not associated with paralytic illness. That is, in countries using IPV, there are no vaccine-associated cases of polio.

Are there different vaccines?

The inactivated polio vaccine is referred to as IPV and is combined with diphtheria, tetanus and pertussis vaccines in DTaP-IPV or the adolescent adult/adult dose dTap-IPV. There is also an inactivated polio vaccine on its own. Oral (live) polio vaccine is no longer available.

How good is the protection offered by this vaccine?

Inactivated polio vaccine is very effective. Four doses are probably all that is needed to remain immune for life. Mass campaigns in New Zealand in 1961 and 1962, using the oral polio vaccine, probably eliminated polio virus from this country.

The World Health Organisation is working hard to eradicate polio from the world by the year 2005. This target date has had to be revised due to the international resurgence of polio in 2004 & 2005 following spread from Nigeria where religious leaders claimed the oral polio vaccine caused infertility and HIV. The claim proved completely unfounded , but the outbreak has spread to 18 previously polio-free countries. Anyone who has travelled in countries such as India will know what people who have had polio look like - their legs small and twisted. Once polio has been eradicated from all countries, no one will need the vaccine any more, but until then New Zealanders are at risk from "imported" cases of polio (unless they are protected by immunisation).

What about side effects?

Transient local reactions at injection site; occasional mild fever and sleepiness or crying, but no serious adverse events have been reported.

If polio no longer occurs in New Zealand, why vaccinate?

Anyone who has been overseas to countries where polio is still around, and has not been immunised with oral polio vaccine, may bring the virus back in their stools/faeces, even if they feel perfectly well. They could then infect people who had not been vaccinated.

So until polio has been completely eradicated from the world, it is important to vaccinate against it.

What is the injectable polio vaccine (IPV)?

The injectable polio vaccine (IPV) contains the three strains of polio virus, inactivated with formaldehyde. Its main advantage over oral polio vaccine (OPV) is that it is not associated with paralytic illness. That is, in countries using IPV, there are no cases of paralysis following immunisation against polio.

Where does the injectable polio vaccine fit into the schedule?

It is recommended that children be vaccinated against polio at 6 weeks, 3 months,5 months and four years. During 2006-07 an IPV dose combined with adult diphtheria, tetanus, pertussis

(dTap-IPV) will be offered to children 11 years of age until all children have received four doses of polio vaccine, It will then be replaced with dTap vaccine.

What about polio vaccine for adults?

A booster dose for adults is recommended if you are travelling to a country where polio is still present - and your last polio vaccine was over 10 years ago.

IPV is free for adults who have not completed a primary course of 4 doses of polio vaccine (either IPV or OPV). Extra booster doses for travellers to at risk countries will need to pay for their immunisation.