

## PARENT ADVICE SHEET ~ Comparison of the effects of diseases and the side effects of vaccines

<i>Disease</i>	<i>Effects of disease</i>	<i>Side effects of vaccination</i>
<b>Diphtheria</b> - contagious bacteria spread by droplets; causes severe throat and breathing difficulties.	About 1 in 15 patients dies. The bacteria release a toxin, which can produce nerve paralysis and heart failure.	DTPa vaccine- about 1 in 10 has local inflammation or fever. Serious adverse events are very rare, and much less common than with DTPw.
<b>Hepatitis B</b> - virus spread mainly by blood, sexual contact or from mother to newborn baby, causes acute hepatitis or chronic carriage.	About 1 in 4 chronic carriers will develop cirrhosis or liver cancer.	About 1 in 15 to 1 in 100 will have pain and fever. Anaphylaxis occurs in about 1 in 600 000.
<b>Hib</b> - contagious bacteria spread by droplets; causes meningitis, epiglottitis (respiratory obstruction), septicaemia and osteomyelitis.	About 1 in 20 meningitis patients dies and about 1 in 4 survivors has permanent brain or nerve damage. About 1 in 100 epiglottitis patients die.	About 1 in 20 has discomfort or local inflammation. About 1 in 50 has fever.
<b>Influenza</b> - contagious virus spread by droplets; causes fever, muscle and joint pains, pneumonia.	Causes increased hospitalisation in the elderly. High-risk groups include the elderly, diabetics, and alcoholics.	About 1 in 10 has local reactions. Guillain-Barré syndrome occurs in about 1 in 1 million.
Measles - highly infectious virus spread by droplets; causes fever, cough and rash.	1 in 25 children with measles develops pneumonia and 1 in 2000 develops encephalitis (brain inflammation). For every 10 children who develop measles encephalitis, 1 dies and 4 have permanent brain damage. About 1 in 25 000 develops SSPE (brain degeneration) which is always fatal.	About 1 in 10 has discomfort, local inflammation or fever. About 1 in 100 develops a rash which is non-infectious. 1 in 1 million recipients may develop encephalitis (inflammation of the brain).
<b>Meningococcal infections</b> - bacteria spread by respiratory droplets. Cause sepsis (infection of the blood stream) and meningitis (infection of the tissues surrounding the brain).	About 1 in 10 patients dies. Of those that survive, 1 in 30 has severe skin scarring or loss of limbs, and 1 in 30 has severe brain damage.	Polysaccharide vaccine: Local reactions common. Mild fever, headache, malaise in 1 in 30. Conjugate vaccine: About 1 in 10 has local inflammation, fever, irritability, anorexia or headaches.
<b>Mumps</b> - contagious virus spread by saliva; causes swollen neck and salivary glands and fever.	1 in 200 children develops encephalitis. 1 in 5 males past puberty develop inflammation of the testes. Occasionally mumps causes infertility or deafness.	1 in 100 vaccine recipients may develop swelling of the salivary glands. 1 in 3 million recipients develops mild encephalitis.
<b>Pertussis</b> - contagious bacteria spread by droplets; causes whooping cough and vomiting lasting up to 3 months.	About 1 in 200 whooping cough patients under the age of 6 months dies from pneumonia or brain damage	As for DTPa vaccine (see diphtheria).
<b>Pneumococcal infections</b> - bacteria spread by droplets; causes fever, pneumonia, septicaemia and meningitis	About 1 in 10 meningitis patients dies	Polysaccharide vaccine: Less than 1 in 20 has pain or local reaction. Conjugate vaccine: About 1 in 10 has local reaction or fever.
<b>Polio</b> - contagious virus spread by faeces and saliva; causes fever, headache and vomiting and may progress to paralysis..	While many infections cause no symptoms, about 1 in 20 hospitalised patients dies and 1 in 2 patients who survive is permanently paralysed.	OPV: Less than 1 in 100 recipients develops diarrhoea, headache and/or muscle pains. 1 in 2.5 million recipients or close contacts develops paralysis. IPV: Local redness (1 in 3), pain (1 in 7) and swelling (1 in 10) common. Up to 1 in 10 has fever, crying, and decreased appetite.
<b>Rubella</b> - contagious virus spread by droplets; causes fever, rash and swollen glands, but causes severe malformations in babies of infected pregnant women.	About 5 in 10 patients develop a rash and painful swollen glands; 5 in 10 adolescents and adults have painful joints; 1 in 3000 develops thrombocytopenia (bruising or bleeding); 1 in 6000 develops inflammation of the brain; 9 in 10 babies infected during the first 10 weeks after conception will have a major congenital abnormality (ie. deafness, blindness or heart defects).	About 1 in 10 has discomfort, local inflammation, or fever. About 1 in 20 has swollen glands, stiff neck, or joint pains. About 1 in 100 has a rash, which is non-infectious. Thrombocytopenia (bruising or bleeding) occurs after a first dose of MMR at a rate of about 1 in 30 500.
<b>Tetanus</b> - caused by toxin of bacteria in soil; causes painful muscle spasms, convulsions, lockjaw.	About 1 in 10 patients dies. The risk is greatest for the very young or old.	As for DTPa vaccine (see diphtheria).
<b>Varicella (chickenpox)</b> - caused by highly contagious virus; causes low-grade fever and vesicular rash. Reactivation of the virus later in life causes herpes zoster (shingles).	1 in 5000 patients develop encephalitis (brain inflammation). About 3 in 100 000 patients die. Infection during pregnancy can result in congenital malformations in the baby. Onset of infection in the mother from 5 days before to 2 days after delivery results in severe infection in the newborn baby in up to one-third of cases.	About 1 in 5 has a local reaction or fever. A mild varicella-like rash may develop in 3-5 per hundred recipients.