

Vaccine-Preventable Diseases and the Vaccines that Prevent Them

Disease	Vaccine	Spread by	Symptoms	Complications
Chickenpox	Varicella vaccine	Air, direct contact	Rash, tiredness, headache, fever	Infected blisters, bleeding disorders, encephalitis (brain swelling), pneumonia
COVID-19	COVID-19 vaccine	Air, close contact	Fever/chills, cough, shortness of breath, fatigue, body aches, headache, new loss of taste and smell, sore throat, congestion/runny nose	Pneumonia, acute respiratory distress syndrome, multi-organ failure, septic shock, death
Diphtheria	DTaP* vaccine	Air, direct contact	Sore throat, mild fever, weakness, swollen glands in neck	Swelling of heart muscle, heart failure, coma, paralysis, death
Hepatitis A	HepA vaccine	Direct contact, contaminated food or water	May be no symptoms; fever, stomach pain, loss of appetite, fatigue, vomiting, jaundice (yellowing of skin and eyes), dark urine	Liver failure, arthralgia (joint pain), kidney, pancreatic, and blood disorders
Hepatitis B	HepB vaccine	Contact with blood or body fluids	May be no symptoms; fever, headache, weakness, vomiting, jaundice (yellowing of skin and eyes), joint pain	Chronic liver infection, liver failure, liver cancer
Hib (Haemophilus influenzae type b)	Hib vaccine	Air, direct contact	May be no symptoms unless bacteria enter the blood	Meningitis (infection around the brain and spinal cord), intellectual disability, epiglottitis (life-threatening infection that can block windpipe and cause serious breathing problems), pneumonia, death
Human Papillomavirus (HPV)	HPV vaccine	Direct contact	Genital warts, common warts, plantar warts, and flat warts	Cervical and other cancers, incl. cancer of vulva, vagina, penis, anus, back of throat, including base of tongue and tonsils
Influenza (flu)	Flu vaccine	Air, direct contact	Fever, muscle pain, sore throat, cough, extreme fatigue	Pneumonia
Measles	MMR** vaccine	Air, direct contact	Rash, fever, cough, runny nose, pinkeye	Encephalitis (brain swelling), pneumonia, death

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Meningococcal disease	Vaccines help protect against all three serogroups (B, C, and Y).	Direct contact, saliva	Fever, headache, stiff neck, nausea, vomiting, confusion	Long-term disabilities, such as loss of limb(s), deafness, nervous system problems, or brain damage
Mumps	MMR**vaccine	Air, direct contact	Swollen salivary glands (under the jaw), fever, headache, tiredness, muscle pain	Meningitis (infection around brain and spinal cord), encephalitis (brain swelling), inflammation of testicles or ovaries, deafness
Pertussis (whooping cough)	DTaP* vaccine	Air, direct contact	Severe cough, runny nose, apnea (a pause in breathing in infants)	Pneumonia, death
Pneumococcal disease	PCV vaccine	Air, direct contact	May be no symptoms; pneumonia	Bacteremia (blood infection), meningitis (infection around brain and spinal cord), death
Polio	IPV vaccine	Air, direct contact, through the mouth	May be no symptoms; sore throat, fever, nausea, headache	Paralysis, death
Rotavirus	RV vaccine. Max age for vaccine is 8 months.	Through the mouth	Diarrhea, fever, vomiting	Severe diarrhea, dehydration
Rubella	MMR** vaccine	Air, direct contact	Sometimes a rash, fever, swollen lymph nodes	Very serious in pregnant women—can lead to miscarriage, stillbirth, premature delivery, birth defects