

PA IMMUNIZATION & EXEMPTION INFORMATION

Below please find links to vaccine ingredient and side effects information and a sample exemption letter to legally be exempt from immunization for students entering primary schools in Pennsylvania. Title 28 Pa. Code § 23.84 allows for (a) Medical exemption or (b) Religious exemption which also includes opting out based on strongly held ethical or moral opposition to vaccinations/vaccinating children.

Reference information

Pennsylvania Department of Health Exemption from immunization.

https://www.upsd.org/uploaded/Special_Ed/Religious_Exemption_Form.pdf

CDC: Vaccine Excipient & Media Summary Excipients Included in U.S. Vaccines

<https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/excipient-table-2.pdf>

<https://vaccine.guide/vaccine-ingredients/overview/cdc-vaccine-excipient-and-media-summary/>

CDC: Ingredients of Vaccines - Fact Sheet

<https://www.cdc.gov/vaccines/vac-gen/additives.htm>

CDC & Prevention & Food and Drug Administration: List of vaccine ingredients

https://en.wikipedia.org/wiki/List_of_vaccine_ingredients

CDC: Possible Side-effects from Vaccines

<https://www.cdc.gov/vaccines/vac-gen/side-effects.htm>

CDC: 2017 Immunization Schedule Birth through 18 years

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

National Center for Biotechnology Information, US Nat'l Library of Medicine: Adverse Effects Associated with Childhood Vaccines: Evidence Bearing on Causality – Death

<https://www.ncbi.nlm.nih.gov/books/NBK236284/>

Report a Vaccine Adverse Event & Vaccine Injury Table

<https://vaers.hhs.gov/reportevent.html>

<https://www.hrsa.gov/vaccinecompensation/vaccineinjurytable.pdf>

Exemption Letter

Exemption from immunization: The PA Code Title 28 Chapter 23.84

<http://www.pacode.com/secure/data/028/chapter23/s23.84.html>

Certificate of Immunization & Statement of exemption to immunization law:

Pennsylvania Department of Health

<https://www.health.pa.gov/topics/Documents/Programs/Immunizations/2018-19%20School%20Procedure%20Manual%20Communications%20and%20Final.pdf>

Date_____

To Whom It May Concern,

We, _____, the parents of _____, have chosen to exercise our right to claim exemption from immunizations as supported by the law Title 28 Pa. Code § 23.84 Exemption from Immunization.

Specifically, section (b) Religious Exemption, which states:

Children need not be immunized if the parent, guardian or emancipated child objects in writing to the immunization on religious grounds or on the basis of a strong moral or ethical conviction similar to a religious belief.

Please accept this letter as our formal objection in writing that we do not wish for our child to receive any form of immunization or inoculation on the basis of the law aforementioned.

Also, please find attached the Pennsylvania Department of Heath Exemption form that is new as of August 1, 2017.

Thank you for honoring our right to exercise choice.

If further information is required, please contact us.

Sincerely,

_____ Date_____

Contact Info. _____

_____ Date_____

Contact Info. _____

§ 23.84. Exemption from immunization.

(a) *Medical exemption.* Children need not be immunized if a physician or the physician's designee provides a written statement that immunization may be detrimental to the health of the child. When the physician determines that immunization is no longer detrimental to the health of the child, the child shall be immunized according to this subchapter.

(b) *Religious exemption.* Children need not be immunized if the parent, guardian or emancipated child objects in writing to the immunization on religious grounds or on the basis of a strong moral or ethical conviction similar to a religious belief.

Source

The provisions of this § 23.84 amended through September 17, 1982, effective August 1, 1983, 12 Pa.B. 3288; amended August 22, 1997, effective August 23, 1997, 27 Pa.B. 4317. Immediately preceding text appears at serial pages (164332) to (164333) and (129145).

Cross References

This section cited in 22 Pa. Code § 51.13 (relating to immunization); 22 Pa. Code § 405.49 (relating to immunizations); 28 Pa. code § 23.83 (relating to immunization requirements); 28 Pa. Code § 23.85 (relating to responsibilities of schools and school administrators); and 28 Pa. Code § 27.77 (relating to immunization requirements for children in child care group settings).

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Name _____ Birthdate _____

Address _____ Parent or guardian _____

Telephone _____

Race/ethnicity: White Black Asian or Pacific Islander American Indian or Alaskan Native

Hispanic origin: Yes No

Please circle present grade. K 1 2 3 4 5 6 7 8 9 10 11 12 Other _____

PENNSYLVANIA DEPARTMENT OF HEALTH – CERTIFICATE OF IMMUNIZATION

VACCINE Circle appropriate item	Enter month, day, and year when immunization doses listed below were given.				
Diphtheria, tetanus and acellular pertussis (DTaP, DTP, Td or DT)	1 / /	2 / /	3 / /	4 / /	5 / /
Tetanus, diphtheria and acellular pertussis (Tdap)	1 / /	2 / /	3 / /	4 / /	5 / /
Polio (OPV or IPV)	1 / /	2 / /	3 / /	4 / /	5 / /
Hepatitis B	1 / /	2 / /	3 / /	4 / /	5 / /
Measles - mumps - rubella (MMR)	1 / /	2 / /	or Measles serology Date _____ Titer _____		
Varicella (vaccine or disease)	1 / /	2 / /	Rubella serology Date _____ Titer _____		
Meningococcal (MCV)	1 / /	2 / /			
Other	1 / /	2 / /	Mumps disease diagnosed by a physician: Date _____		

H502.320 Rev. 03/17

Name _____ Birthdate _____

Address _____ Parent or guardian _____

Telephone _____

Please circle present grade. K 1 2 3 4 5 6 7 8 9 10 11 12 Other _____

STATEMENT OF EXEMPTION TO IMMUNIZATION LAW

MEDICAL EXEMPTION

The physical condition of the above-named child is such that immunization would endanger life or health.

Signed _____ Date _____
(PHYSICIAN)

RELIGIOUS EXEMPTION

State your reason for requesting this exemption.

PHILOSOPHICAL/STRONG MORAL OR ETHICAL CONVICTION EXEMPTION

State your reason for requesting this exemption.

Signed _____
(PARENT OR GUARDIAN) (Date)

PENNSYLVANIA IMMUNIZATION INFORMATION

List of vaccine ingredients

Source: Wikipedia: https://en.wikipedia.org/wiki/List_of_vaccine_ingredients

This **list of vaccine ingredients** indicates the culture media used in the production of common **vaccines** and the **excipients** they contain, as published by the United States **Centers for Disease Control and Prevention** and **Food and Drug Administration**. Vaccine ingredients and production in other nations are substantially the same. Also listed are substances used in the manufacturing process.^[1]

To read the prescribing information for each individual vaccine, see *List of Licensed Vaccines*

Vaccine	Culture media	Excipients
Adenovirus vaccine	Dulbecco's Modified Eagle Medium, human diploid fibroblast cell culture (WI-38)	Acetone, alcohol, anhydrous lactose, castor oil, cellulose acetate phthalate, dextrose, D-fructose, D-mannose, FD&C Yellow #6 aluminum lake dye, fetal bovine serum, human serum albumin, magnesium stearate, micro crystalline cellulose, plasdone C, Polacrillin potassium, potassium phosphate, sodium bicarbonate, sucrose
Anthrax vaccine(Biothrax)	Puziss-Wright medium 1095, synthetic or semisynthetic	Aluminum hydroxide, amino acids, benzethonium chloride, formaldehyde, inorganic salts and sugars, vitamins
BCG (Bacillus Calmette-Guérin) (TICE BCG)	Synthetic or semisynthetic	Asparagine, citric acid, lactose, glycerin, iron ammonium citrate, magnesium sulfate, potassium phosphate
DTaP(DAPTACE L)	Cohen-Wheeler or Stainer-Scholte media, synthetic or semisynthetic	Aluminum phosphate, formaldehyde, Glutaraldehyde, 2-phenoxyethanol
DTaP (Infanrix)	Cohen-Wheeler or Stainer-Scholte media, Lathan medium derived from bovine casein, Linggoud-Fenton medium derived	Aluminum hydroxide, bovine extract, formaldehyde, glutaraldehyde, polysorbate 80

	from bovine extract, synthetic or semisynthetic	
DTaP (Tripedia)	Cohen-Wheeler or Stainer-Scholte media, synthetic or semisynthetic	Aluminum potassium sulfate, ammonium sulfate, bovine extract, formaldehyde, gelatin, peptone, polysorbate 80, sodium phosphate, thimerosal ^[2]
DTaP/Hib (TriHIBit)	Synthetic or semisynthetic	Aluminum potassium sulfate, ammonium sulfate, bovine extract, formaldehyde or formalin, gelatin, polysorbate 80, sucrose, thimerosal ^[2]
DTaP-IPV (KINRIX)	Vero (monkey kidney) cell culture, synthetic or semisynthetic	Aluminum hydroxide, calf serum, formaldehyde, glutaraldehyde, lactalbumin hydrolysate, neomycin sulfate, polymyxin B, polysorbate 80
DTaP-HepB-IPV (Pediarix)	Bovine protein, Lathan medium derived from bovine casein, Linggoud-Fenton medium derived from bovine extract, Vero (monkey kidney) cell culture, synthetic or semisynthetic	Aluminum hydroxide, aluminum phosphate, calf serum, lactalbumin hydrolysate, formaldehyde, glutaraldehyde, neomycin sulfate, polymyxin B, polysorbate 80, yeast protein
DtaP-IPV/Hib (Pentacel)	Synthetic or semisynthetic	Aluminum phosphate, bovine serum albumin, formaldehyde, glutaraldehyde, MRC-5 cellular protein, neomycin, polymyxin B sulfate, polysorbate 80, 2-phenoxyethanol
DT (diphtheria vaccine plus tetanus vaccine) (Sanofi)	Synthetic or semisynthetic	Aluminum potassium sulfate, bovine extract, formaldehyde, thimerosal

DT (Massachusetts)	Synthetic or semisynthetic	Aluminum hydroxide, formaldehyde or formalin
Hib vaccine(ActHIB)	Synthetic or semisynthetic	Ammonium sulfate, formaldehyde, sucrose
Hib (PedvaxHib)	Synthetic or semisynthetic	Aluminum hydroxyphosphate sulfate
Hib (Hiberix)	Semisynthetic	Formaldehyde, lactose
Hib/Hep B (Comvax)	Synthetic or semisynthetic, yeast or yeast extract	Amorphous aluminum hydroxyphosphate sulfate, amino acids, dextrose, formaldehyde, hemin chloride, mineral salts, nicotinamide adenine dinucleotide, potassium aluminum sulfate, sodium borate, soy peptone, yeast protein
Hepatitis A vaccine (Havrix)	Human diploid tissue culture (MRC-5)	Aluminum hydroxide, amino acid supplement, formalin, MRC-5 cellular protein, neomycin sulfate, phosphate buffers, polysorbate 20
Hepatitis A vaccine (VAQTA)	Human diploid tissue culture (MRC-5)	Amorphous aluminum hydroxyphosphate sulfate, bovine albumin or serum, formaldehyde, MRC-5 cellular protein, sodium borate
Hepatitis B vaccine(Engerix-B)	Yeast or yeast extract	Aluminum hydroxide, phosphate buffers, yeast protein
Hepatitis B vaccine (Recombivax HB)	Yeast or yeast extract	Amorphous aluminum hydroxyphosphate sulfate, amino acids, dextrose, formaldehyde, mineral salts, potassium aluminum sulfate, soy peptone, yeast protein
HepA/HepB vaccine (Twinrix)	Human diploid tissue culture	Aluminum hydroxide, aluminum phosphate, amino acids, formalin, MRC-5 cells, neomycin sulfate, phosphate buffers, polysorbate 20, yeast protein

	(MRC-5), yeast or yeast extract	
Human papillomavirus(HPV) (Cervarix)	<i>Trichoplusia ni</i> cells	Aluminum hydroxide, amino acids, lipids, mineral salts, sodium dihydrogen phosphate dehydrate, type 16 viral protein L1, type 18 viral protein L1, vitamins
Human papillomavirus (HPV) (Gardasil)	Yeast or yeast extract	Amino acids, amorphous aluminum hydroxyphosphate sulfate, carbohydrates, L-histidine, mineral salts, polysorbate 80, sodium borate, vitamins, yeast protein
Influenza vaccine (Afluria)	Chicken embryo	Beta-propiolactone, calcium chloride, dibasic sodium phosphate, egg protein, monobasic potassium phosphate, monobasic sodium phosphate, neomycin sulfate, polymyxin B, potassium chloride, sodium taurodeoxychoalate, thimerosal (multi-dose vials only)
Influenza vaccine (Agriflu)	Chicken embryo	Egg proteins, formaldehyde, polysorbate 80, cetyltrimethylammonium bromide, neomycin sulfate, kanamycin
Influenza vaccine (Fluarix)	Chicken embryo	Formaldehyde, octoxynol-10 (Triton X-100), α -tocopheryl hydrogen succinate, polysorbate 80 (Tween 80), hydrocortisone, gentamicin sulfate, ovalbumin, sodium deoxycholate, sucrose, phosphate buffer
Influenza vaccine (Flublok)	insect cell line (expresSF+®)	Monobasic sodium phosphate, dibasic sodium phosphate, polysorbate 20, baculovirus and host cell proteins, baculovirus and cellular DNA, Triton X-100, lipids, vitamins, amino acids, mineral salts
Influenza vaccine (Flucelvax)	Madin Darby Canine Kidney (MDCK) cell protein	Madin Darby Canine Kidney (MDCK) cell protein, MDCK cell DNA, polysorbate 80, cetyltrimethylammonium bromide, β -propiolactone, phosphate buffer

Influenza vaccine (Flulaval)	Chicken embryo	Formaldehyde, á-tocopheryl hydrogen succinate, polysorbate 80, sodium deoxycholate, thimerosal, ovalbumin
Influenza vaccine (Fluvirin)	Chicken embryo	Beta-propiolactone, egg protein, neomycin, nonylphenol ethoxylate, polymyxin, thimerosal (multi-dose containers), thimerosal ^[2] (single-dose syringes)
Influenza vaccine (Fluzone)	Chicken embryo	Egg protein, formaldehyde, gelatin (standard formulation only), octylphenol ethoxylate (Triton X-100), sodium phosphate, thimerosal (multi-dose containers only)
Influenza vaccine (FluMist)	Chicken kidney cells, chicken embryo	Arginine, dibasic potassium phosphate, egg protein, ethylenediaminetetraacetic acid, gentamicin sulfate, hydrolyzed porcine gelatin, monobasic potassium phosphate, monosodium glutamate, sucrose
Japanese encephalitis vaccine (JE-Vax)	Mouse brain culture	Formaldehyde or formalin, gelatin, mouse serum protein, polysorbate 80, thimerosal
Japanese encephalitis vaccine (Ixiaro)	Vero (monkey kidney) cell culture	Aluminum hydroxide, bovine serum albumin, formaldehyde, protamine sulfate, sodium metabisulphite
Meningococcal vaccine (Menactra)	Modified Mueller-Miller medium, Mueller Hinton agar, Watson Scherp medium	Formaldehyde (Each 0.5 mL dose may contain residual amounts of formaldehyde of less than 2.66 µg (0.000532%), by calculation), phosphate buffers ^[3]
Meningococcal vaccine (Menomune)	Watson Scherp media, Mueller Hinton agar	Lactose, thimerosal (multi-dose vial only)
Meningococcal vaccine (Menveo)	Franz complete medium	Amino acids, formaldehyde, yeast extract

MMR vaccine(MMR-II)	Human diploid tissue culture (WI-38), Medium 199	Amino acids, fetal bovine serum, glutamate, hydrolyzed gelatin, neomycin, recombinant human serum albumin, sodium phosphate, sorbitol, sucrose, vitamins
MMRV vaccine(ProQuad)	Human diploid tissue cultures (MRC-5, WI-38), Medium 199	Bovine calf serum, dibasic potassium phosphate, dibasic sodium phosphate, human albumin, human serum albumin, hydrolyzed gelatin, monobasic potassium phosphate, monosodium L-glutamate, MRC-5 cellular protein, neomycin, sodium bicarbonate, sorbitol, sucrose, potassium chloride
Pneumococcal vaccine(Pneumovax)	Bovine protein	Phenol
Pneumococcal vaccine (Prevnar)	Soy peptone broth	Aluminum phosphate, ammonium sulfate, casamino acid, polysorbate 80, succinate buffer, yeast
Polio vaccine(IPV - IPOL)	Vero (monkey kidney) cell culture, Medium 199	Calf serum protein, formaldehyde, neomycin, 2-phenoxyethanol, polymyxin B, streptomycin
Polio vaccine (IPV - Poliovax)	Human diploid tissue culture (MRC-5)	sodium chloride
Rabies vaccine(Imovax)	Human diploid tissue culture (MRC-5)	Albumin, MRC-5 cells, neomycin sulfate, phenol
Rabies vaccine (RabAvert)	Rhesus fetal lung tissue culture, chicken embryo	Amphotericin B, beta-propiolactone, chicken protein, chlortetracycline, human serum albumin, neomycin, ovalbumin, polygeline (processed bovine 14 gelatin), potassium glutamate

Rotavirus vaccine(RotaTeq)	Vero (monkey kidney) cell culture	fetal bovine serum, sodium citrate, sodium phosphate monobasic monohydrate, sodium hydroxide, sucrose, polysorbate 80
Rotavirus vaccine (ROTARIX)	Dulbecco's Modified Eagle Medium (DMEM)	Amino acids, calcium carbonate, dextran, sorbitol, sucrose, vitamins, xanthan
Td vaccine (Decavac)	Mueller & Miller medium, synthetic or semisynthetic	Aluminum potassium sulfate, bovine muscle tissue, formaldehyde, peptone, thimerosal ^[2]
Td vaccine (Mass)	Modified Mueller's media, synthetic or semisynthetic	Aluminum phosphate, ammonium phosphate, bovine extracts, formaldehyde, thimerosal (some multi-dose vials)
Tdap vaccine (Adacel)	Mueller's growth medium, Mueller-Miller casamino acid medium (without beef heart infusion), synthetic or semisynthetic	Aluminum phosphate, ammonium sulfate, formaldehyde, glutaraldehyde, 2-phenoxyethanol
Tdap vaccine (Boostrix)	Fenton media with bovine casein, Lathan medium derived from bovine casein, Linggoud-Fenton medium derived from bovine extract, Stainer-Scholte liquid medium, synthetic or semisynthetic	Aluminum hydroxide, bovine extract, formaldehyde, glutaraldehyde, polysorbate 80
Typhoid vaccine (inactivated – TYPHIM Vi)	Synthetic or semisynthetic	Disodium phosphate, monosodium phosphate, phenol, polydimethylsiloxane, hexadecyltrimethylammonium bromide

Typhoid vaccine (oral – Ty21a/Vivotif)		Amino acids, ascorbic acid, casein, dextrose, galactose, lactose, sucrose, yeast extract
Vaccinia (ACAM2000)	Vero (monkey kidney) cell culture	Glycerin, human serum albumin, mannitol, neomycin, phenol, polymyxin B
Varicella vaccine (Varivax)	Human diploid tissue cultures (MRC-5 and WI-38)	Dibasic sodium phosphate, ethylenediamine tetra acetic acid [sodium (EDTA), fetal bovine serum, gelatin, glutamate, monobasic potassium phosphate, monobasic sodium phosphate, monosodium L-glutamate, MRC-5 DNA and cellular protein, neomycin, phosphate, potassium chloride, sucrose
Yellow fever vaccine (YF-Vax)	Chicken embryo	Egg protein, gelatin, sorbitol
Zoster vaccine (Zostavax)	Human diploid tissue cultures (MRC-5 and WI-38)	Bovine calf serum, dibasic sodium phosphate, hydrolyzed porcine gelatin, monosodium L-glutamate, MRC-5 DNA and cellular protein, monobasic potassium phosphate, neomycin, potassium chloride, sucrose

CDC: Vaccine Excipient & Media Summary Excipients Included in U.S. Vaccines
<https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf>

Vaccine Excipient & Media Summary Excipients Included in U.S. Vaccines, by Vaccine

In addition to weakened or killed disease antigens (viruses or bacteria), vaccines contain very small amounts of other ingredients – excipients or media.

Some excipients are added to a vaccine for a specific purpose. These include:

Preservatives, to prevent contamination. For example, thimerosal.

Adjuvants, to help stimulate a stronger immune response. For example, aluminum salts.

Stabilizers, to keep the vaccine potent during transportation and storage. For example, sugars or gelatin.

Others are residual trace amounts of materials that were used during the manufacturing process and removed. These include:

Cell culture materials, used to grow the vaccine antigens. For example, egg protein, various culture media.

Inactivating ingredients, used to kill viruses or inactivate toxins. For example, formaldehyde.

Antibiotics, used to prevent contamination by bacteria. For example, neomycin.

The following table lists all components, other than antigens, shown in the manufacturers' package insert (PI) for each vaccine. Each of these PIs, which can be found on the FDA's website (see below) contains a description of that vaccine's manufacturing process, including the amount and purpose of each substance. In most PIs, this information is found in Section 11: "Description."

All information was extracted from manufacturers' package inserts, current as of January 6, 2017.

If in doubt about whether a PI has been updated since then, check the FDA's website at:

<http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm093833.htm>

Vaccine	Contains
Adenovirus	human-diploid fibroblast cell cultures (strain WI-38), Dulbecco's Modified Eagle's Medium, fetal bovine serum, sodium bicarbonate, monosodium glutamate, sucrose, D-mannose, D-fructose, dextrose, human serum albumin, potassium phosphate, plasdene C, anhydrous lactose, microcrystalline cellulose, polacrillin potassium, magnesium stearate, microcrystalline cellulose, magnesium stearate, cellulose acetate phthalate, alcohol, acetone, castor oil, FD&C Yellow #6 aluminum lake dye
Anthrax (Biothrax)	amino acids, vitamins, inorganic salts, sugars, aluminum hydroxide, sodium chloride, benzethonium chloride, formaldehyde
BCG (Tice)	glycerin, asparagine, citric acid, potassium phosphate, magnesium sulfate, iron ammonium citrate, lactose
Cholera (Vaxchora)	casamino acids, yeast extract, mineral salts, anti-foaming agent, ascorbic acid, hydrolyzed casein, sodium chloride, sucrose, dried lactose, sodium bicarbonate, sodium carbonate
DT (Sanofi)	aluminum phosphate, isotonic sodium chloride, formaldehyde, casein, cystine, maltose, uracil, inorganic salts, vitamins, dextrose
DTaP (Daptacel)	aluminum phosphate, formaldehyde, glutaraldehyde, 2-phenoxyethanol, Stainer-Scholte medium, casamino acids, dimethyl-beta-cyclodextrin, Mueller's growth medium, ammonium sulfate, modified Mueller-Miller casamino acid medium without beef heart infusion, 2-phenoxyethanol
DTaP (Infanrix)	Fenton medium containing a bovine extract, modified Latham medium derived from bovine casein, formaldehyde, modified Stainer-Scholte liquid medium, glutaraldehyde, aluminum hydroxide, sodium chloride, polysorbate 80 (Tween 80)
DTaP-IPV (Kinrix)	Fenton medium containing a bovine extract, modified Latham medium derived from bovine casein, formaldehyde, modified Stainer-Scholte liquid medium, glutaraldehyde, aluminum hydroxide, VERO cells, a continuous line of monkey kidney cells, Calf serum, lactalbumin hydrolysate, sodium chloride, polysorbate 80 (Tween 80), neomycin sulfate, polymyxin B
DTaP-IPV (Quadracel)	modified Mueller's growth medium, ammonium sulfate, modified Mueller-Miller casamino acid medium without beef heart infusion, formaldehyde, ammonium sulfate aluminum phosphate, Stainer-Scholte medium, casamino acids, dimethyl-beta-cyclodextrin, MRC-5 cells, normal human diploid cells, CMRL 1969 medium supplemented with calf serum, Medium 199 without calf serum, 2-phenoxyethanol, polysorbate 80, glutaraldehyde, neomycin, polymyxin B sulfate

Vaccine	Contains
DTaP-HepB-IPV (Pediarix)	Fenton medium containing a bovine extract, modified Latham medium derived from bovine casein, formaldehyde, modified Stainer-Scholte liquid medium, VERO cells, a continuous line of monkey kidney cells, calf serum and lactalbumin hydrolysate, aluminum hydroxide, aluminum phosphate, aluminum salts, sodium chloride, polysorbate 80 (Tween 80), neomycin sulfate, polymyxin B, yeast protein.
DTaP-IPV/Hib (Pentacel)	aluminum phosphate, polysorbate 80, sucrose, formaldehyde, glutaraldehyde, bovine serum albumin, 2-phenoxyethanol, neomycin, polymyxin B sulfate, modified Mueller's growth medium, ammonium sulfate, modified Mueller-Miller casamino acid medium without beef heart infusion, Stainer-Scholte medium, casamino acids, dimethyl-beta-cyclodextrin, glutaraldehyde, MRC-5 cells (a line of normal human diploid cells), CMRL 1969 medium supplemented with calf serum, Medium 199 without calf serum, modified Mueller and Miller medium
Hib (ActHIB)	sodium chloride, modified Mueller and Miller medium (the culture medium contains milk-derived raw materials [casein derivatives]), formaldehyde, sucrose
Hib (Hiberix)	saline, synthetic medium, formaldehyde, sodium chloride, lactose
Hib (PedvaxHIB)	complex fermentation media, amorphous aluminum hydroxyphosphate sulfate, sodium chloride
Hib/Mening. CY (MenHibrix)	saline, semi-synthetic media, formaldehyde, sucrose, tris (trometamol)-HCl
Hep A (Havrix)	MRC-5 human diploid cells, formalin, aluminum hydroxide, amino acid supplement, phosphate-buffered saline solution, polysorbate 20, neomycin sulfate, aminoglycoside antibiotic
Hep A (Vaqta)	MRC-5 diploid fibroblasts, amorphous aluminum hydroxyphosphate sulfate, non-viral protein, DNA, bovine albumin, formaldehyde, neomycin, sodium borate, sodium chloride
Hep B (Engerix-B)	aluminum hydroxide, yeast protein, sodium chloride, disodium phosphate dihydrate, sodium dihydrogen phosphate dihydrate
Hep B (Recombivax)	soy peptone, dextrose, amino acids, mineral salts, phosphate buffer, formaldehyde, potassium aluminum sulfate, amorphous aluminum hydroxyphosphate sulfate, yeast protein
Hep A/Hep B (Twinrix)	MRC-5 human diploid cells, formalin, aluminum phosphate, aluminum hydroxide, amino acids, sodium chloride, phosphate buffer, polysorbate 20, neomycin sulfate, yeast protein
Human Papillomavirus (HPV) (Gardasil)	vitamins, amino acids, mineral salts, carbohydrates, amorphous aluminum hydroxyphosphate sulfate, sodium chloride, L-histidine, polysorbate 80, sodium borate, yeast protein
Human Papillomavirus (HPV) (Gardasil 9)	vitamins, amino acids, mineral salts, carbohydrates, amorphous aluminum hydroxyphosphate sulfate, sodium chloride, L-histidine, polysorbate 80, sodium borate, yeast protein
Influenza (Afluria) Trivalent & Quadrivalent	sodium chloride, monobasic sodium phosphate, dibasic sodium phosphate, monobasic potassium phosphate, potassium chloride, calcium chloride, sodium taurodeoxycholate, ovalbumin, sucrose, neomycin sulfate, polymyxin B, beta-propiolactone, thimerosal (multi-dose vials)
Influenza (Fluad)	squalene, polysorbate 80, sorbitan trioleate, sodium citrate dehydrate, citric acid monohydrate, neomycin, kanamycin, barium, egg proteins, CTAB (cetyltrimethylammonium bromide), formaldehyde
Influenza (Fluarix) Trivalent & Quadrivalent	octoxynol-10 (TRITON X-100), α -tocopheryl hydrogen succinate, polysorbate 80 (Tween 80), hydrocortisone, gentamicin sulfate, ovalbumin, formaldehyde, sodium deoxycholate, sodium phosphate-buffered isotonic sodium chloride
Influenza (Flublok) Trivalent & Quadrivalent	sodium chloride, monobasic sodium phosphate, dibasic sodium phosphate, polysorbate 20 (Tween 20), baculovirus and <i>Spodoptera frugiperda</i> cell proteins, baculovirus and cellular DNA, Triton X-100, lipids, vitamins, amino acids, mineral salts
Influenza (Flucelvax) Trivalent & Quadrivalent	Madin Darby Canine Kidney (MDCK) cell protein, protein other than HA, MDCK cell DNA, polysorbate 80, cetyltrimethylammonium bromide, and β -propiolactone
Influenza (Flulaval) Trivalent & Quadrivalent	ovalbumin, formaldehyde, sodium deoxycholate, α -tocopheryl hydrogen succinate, polysorbate 80, thimerosal (multi-dose vials)
Influenza (Fluvirin)	ovalbumin, polymyxin, neomycin, betapropiolactone, nonylphenol ethoxylate, thimerosal
Influenza (Fluzone) Quadrivalent	egg protein, octylphenol ethoxylate (Triton X-100), sodium phosphate-buffered isotonic sodium chloride solution, thimerosal (multi-dose vials), sucrose

Vaccine	Contains
Influenza (Fluzone) High Dose	egg protein, octylphenol ethoxylate (Triton X-100), sodium phosphate-buffered isotonic sodium chloride solution, formaldehyde, sucrose
Influenza (Fluzone) Intradermal	egg protein, octylphenol ethoxylate (Triton X-100), sodium phosphate-buffered isotonic sodium chloride solution, sucrose
Influenza (FluMist) Quadrivalent	monosodium glutamate, hydrolyzed porcine gelatin, arginine, sucrose, dibasic potassium phosphate, monobasic potassium phosphate, ovalbumin, gentamicin sulfate, ethylenediaminetetraacetic acid (EDTA)
Japanese Encephalitis (Ixiaro)	aluminum hydroxide, protamine sulfate, formaldehyde, bovine serum albumin, host cell DNA, sodium metabisulphite, host cell protein
Meningococcal (MenACWY-Menactra)	Watson Scherp media containing casamino acid, modified culture medium containing hydrolyzed casein, ammonium sulfate, sodium phosphate, formaldehyde, sodium chloride
Meningococcal (MenACWY-Menveo)	formaldehyde, amino acids, yeast extract, Franz complete medium, CY medium
Meningococcal (MPSV4-Menomune)	Mueller Hinton casein agar, Watson Scherp casamino acid media, thimerosal (multi-dose vials), lactose
Meningococcal (MenB – Bexsero)	aluminum hydroxide, <i>E. coli</i> , histidine, sucrose, deoxycholate, kanamycin
Meningococcal (MenB – Trumenba)	defined fermentation growth media, polysorbate 80, histidine buffered saline.
MMR (MMR-II)	chick embryo cell culture, WI-38 human diploid lung fibroblasts, vitamins, amino acids, fetal bovine serum, sucrose, glutamate, recombinant human albumin, neomycin, sorbitol, hydrolyzed gelatin, sodium phosphate, sodium chloride
MMRV (ProQuad) (Frozen)	chick embryo cell culture, WI-38 human diploid lung fibroblasts MRC-5 cells, sucrose, hydrolyzed gelatin, sodium chloride, sorbitol, monosodium L-glutamate, sodium phosphate dibasic, human albumin, sodium bicarbonate, potassium phosphate monobasic, potassium chloride; potassium phosphate dibasic, neomycin, bovine calf serum
MMRV (ProQuad) (Refrigerator Stable)	chick embryo cell culture, WI-38 human diploid lung fibroblasts, MRC-5 cells, sucrose, hydrolyzed gelatin, urea, sodium chloride, sorbitol, monosodium L-glutamate, sodium phosphate, recombinant human albumin, sodium bicarbonate, potassium phosphate potassium chloride, neomycin, bovine serum albumin
Pneumococcal (PCV13 – Prevnar 13)	soy peptone broth, casamino acids and yeast extract-based medium, CRM197 carrier protein, polysorbate 80, succinate buffer, aluminum phosphate
Pneumococcal (PPSV-23 – Pneumovax)	phenol
Polio (IPV – Ipol)	Eagle MEM modified medium, calf bovine serum, M-199 without calf bovine serum, vero cells (a continuous line of monkey kidney cells), phenoxyethanol, formaldehyde, neomycin, streptomycin, polymyxin B
Rabies (Imovax)	human albumin, neomycin sulfate, phenol red indicator, MRC-5 human diploid cells, beta-propiolactone
Rabies (RabAvert)	chicken fibroblasts, β-propiolactone, polygeline (processed bovine gelatin), human serum albumin, bovine serum, potassium glutamate, sodium EDTA, ovalbumin neomycin, chlortetracycline, amphotericin B
Rotavirus (RotaTeq)	sucrose, sodium citrate, sodium phosphate monobasic monohydrate, sodium hydroxide, polysorbate 80, cell culture media, fetal bovine serum, vero cells [DNA from porcine circoviruses (PCV) 1 and 2 has been detected in RotaTeq. PCV-1 and PCV-2 are not known to cause disease in humans.]
Rotavirus (Rotarix)	amino acids, dextran, Dulbecco's Modified Eagle Medium (sodium chloride, potassium chloride, magnesium sulfate, ferric (III) nitrate, sodium phosphate, sodium pyruvate, D-glucose, concentrated vitamin solution, L-cystine, L-tyrosine, amino acids solution, L-250 glutamine, calcium chloride, sodium hydrogencarbonate, and phenol red), sorbitol, sucrose, calcium carbonate, sterile water, xanthan [Porcine circovirus type 1 (PCV-1) is present in Rotarix. PCV-1 is not known to cause disease in humans.]
Smallpox (Vaccinia – ACAM2000)	African Green Monkey kidney (Vero) cells, HEPES, human serum albumin, sodium chloride, neomycin, polymyxin B, Glycerin, phenol

Vaccine	Contains
Td (Tenivac)	aluminum phosphate, formaldehyde, modified Mueller-Miller casamino acid medium without beef heart infusion, ammonium sulfate
Td (Mass Biologics)	aluminum phosphate, formaldehyde, thimerosal, modified Mueller's media which contains bovine extracts, ammonium sulfate
Tdap (Adacel)	aluminum phosphate, formaldehyde, 2-phenoxyethanol, Stainer-Scholte medium, casamino acids, dimethyl-beta-cyclodextrin, glutaraldehyde, modified Mueller-Miller casamino acid medium without beef heart infusion, ammonium sulfate, modified Mueller's growth medium
Tdap (Boostrix)	modified Latham medium derived from bovine casein, Fenton medium containing a bovine extract, formaldehyde, modified Stainer-Scholte liquid medium, glutaraldehyde, aluminum hydroxide, sodium chloride, polysorbate 80
Typhoid (inactivated – Typhim Vi)	hexadecyltrimethylammonium bromide, formaldehyde, phenol, polydimethylsiloxane, disodium phosphate, monosodium phosphate, semi-synthetic medium
Typhoid (Vivotif Ty21a)	yeast extract, casein, dextrose, galactose, sucrose, ascorbic acid, amino acids, lactose, magnesium stearate, gelatin
Varicella (Varivax) <i>Frozen</i>	human embryonic lung cell cultures, guinea pig cell cultures, human diploid cell cultures (WI-38), human diploid cell cultures (MRC-5), sucrose, hydrolyzed gelatin, sodium chloride, monosodium L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, EDTA (Ethylenediaminetetraacetic acid), neomycin, fetal bovine serum
Varicella (Varivax) <i>Refrigerator Stable</i>	human embryonic lung cell cultures, guinea pig cell cultures, human diploid cell cultures (WI-38), human diploid cell cultures (MRC-5), sucrose, hydrolyzed gelatin, urea, sodium chloride, monosodium L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, neomycin, bovine calf serum
Yellow Fever (YF-Vax)	sorbitol, gelatin, sodium chloride, egg protein
Zoster (Shingles – Zostavax) <i>Frozen</i>	sucrose, hydrolyzed porcine gelatin, sodium chloride, monosodium L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride; MRC-5 cells, neomycin, bovine calf serum
Zoster (Shingles – Zostavax) <i>Refrigerator Stable</i>	sucrose, hydrolyzed porcine gelatin, urea, sodium chloride, monosodium L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, MRC-5 cells, neomycin, bovine calf serum

A table listing vaccine excipients and media *by excipient* can be found in:

Grabenstein JD. *ImmunoFacts: Vaccines and Immunologic Drugs* – 2013 (38th revision). St Louis, MO: Wolters Kluwer Health, 2012.

CDC Possible Side-effects from Vaccines and who should NOT get Vaccinated with these Vaccines.

Source: <https://www.cdc.gov/vaccines/vac-gen/side-effects.htm>

Source: <https://www.cdc.gov/vaccines/vpd/should-not-vacc.html>

Any vaccine can cause side effects. For the most part these are minor (for example, a sore arm or low-grade fever) and go away within a few days. Listed below are vaccines licensed in the United States and side effects that have been associated with each of them. This information is copied directly from [CDC's Vaccine Information Statements](#), which in turn are derived from the [Advisory Committee on Immunization Practices](#) (ACIP) [recommendations](#) for each vaccine.

Remember, vaccines are continually monitored for safety, and like any medication, vaccines can cause side effects. However, a decision not to immunize a child also involves risk and could put the child and others who come into contact with him or her at risk of contracting a potentially deadly disease.

Adenovirus vaccine side-effects

What are the risks from Adenovirus vaccine?

A vaccine, like any medicine, could cause a serious reaction. But the risk of a vaccine causing serious harm, or death, is extremely small.

Mild Problems

Several mild problems have been reported within 2 weeks of getting the vaccine:

- headaches, upper respiratory tract infection (about 1 person in 3)
- stuffy nose, sore throat, joint pain (about 1 person in 6)
- abdominal pain, cough, nausea (about 1 person in 7)
- diarrhea (about 1 person in 10)
- fever (about 1 person in 100)

Serious Problems

More serious problems have been reported by about 1 person in 100, within 6 months of vaccination. These problems included:

- blood in the urine or stool

- pneumonia
- inflammation of the stomach or intestines

It is not clear whether these mild or serious problems were caused by the vaccine or occurred after vaccination by chance.

As with all vaccines, adenovirus vaccine will continue to be monitored for unexpected or severe problems.

Note: Adenovirus vaccine is approved for use only among military personnel.

This information is based on the [Adenovirus VIS](#).

Adenovirus vaccine

Some people should not get adenovirus vaccine:

- Anyone with a severe (life-threatening) allergy to any component of the vaccine. *Tell the doctor if you have any severe allergies.*
- Pregnant women or nursing mothers.
- Anyone who is unable to swallow the vaccine tablets whole without chewing them.
- Anyone younger than 17 or older than 50 years of age.

Other precautions:

- Talk with a doctor if:
 - you have HIV/AIDS or another disease that affects the immune system, or
 - your immune system is weakened because of cancer or other medical conditions, a transplant, or radiation or drug treatment (such as steroids or cancer chemotherapy).
- Women should not become pregnant for 6 weeks following vaccination.
- Vaccination should be postponed for anyone with vomiting or diarrhea.
- Virus from the vaccine can be shed in the stool for up to 28 days after vaccination. To minimize the risk of spreading vaccine virus to other people during this period, observe proper **personal hygiene**, such as frequent hand washing, especially following bowel movements. This is especially important if you have close contact with children 7 years of age and younger, with anyone having a weakened immune system, or with pregnant women.

Note: Adenovirus vaccine is approved for use only among military personnel.

This information was taken directly from the [Adenovirus VIS](#)

Anthrax vaccine side-effects

What are the risks from anthrax vaccine?

Like any medicine, a vaccine could cause a serious problem, such as a severe allergic reaction.

Anthrax is a very serious disease, and the risk of serious harm from the vaccine is extremely small.

Mild Problems

- Reactions on the arm where the shot was given:
 - Tenderness (about 1 person out of 2)
 - Redness (about 1 out of 7 men and 1 out of 3 women)
 - Itching (about 1 out of 50 men and 1 out of 20 women)
 - Lump (about 1 out of 60 men and 1 out of 16 women)
 - Bruise (about 1 out of 25 men and 1 out of 22 women)
- Muscle aches or temporary limitation of arm movement (about 1 out of 14 men and 1 out of 10 women).
- Headaches (about 1 out of 25 men and 1 out of 12 women).
- Fatigue (about 1 out of 15 men, about 1 out of 8 women).

Severe Problems

- Serious allergic reaction (very rare – less than once in 100,000 doses).

As with any vaccine, other severe problems have been reported. But these don't appear to occur any more often among anthrax vaccine recipients than among unvaccinated people.

There is no evidence that anthrax vaccine causes long-term health problems.

Independent civilian committees have not found anthrax vaccination to be a factor in unexplained illnesses among Gulf War veterans.

This information is based on the [Anthrax VIS](#).

Anthrax vaccine

Some people should not get anthrax vaccine.

- Anyone who has had a serious allergic reaction to a previous dose of anthrax vaccine should not get another dose.

- Anyone who has a severe allergy to any vaccine component should not get a dose. Tell your provider if you have any severe allergies, including latex.
- If you have ever had Guillain Barré syndrome (GBS), your provider might recommend not getting anthrax vaccine.
- If you have a moderate or severe illness your provider might ask you to wait until you recover to get the vaccine. People with mild illness can usually be vaccinated.
- Vaccination may be recommended for pregnant women who have been exposed to anthrax and are at risk of developing inhalation disease. *Nursing mothers may safely be given anthrax vaccine.*

This information was taken directly from the [Anthrax VIS](#)

DTaP vaccine side-effects

(Diphtheria, Tetanus, and acellular Pertussis)

What are the risks from DTaP vaccine?

Getting diphtheria, tetanus, or pertussis disease is much riskier than getting DTaP vaccine.

However, a vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions.

The risk of DTaP vaccine causing serious harm, or death, is extremely small.

Mild Problems (Common)

- Fever (up to about 1 child in 4)
- Redness or swelling where the shot was given (up to about 1 child in 4)
- Soreness or tenderness where the shot was given (up to about 1 child in 4)

These problems occur more often after the 4th and 5th doses of the DTaP series than after earlier doses. Sometimes the 4th or 5th dose of DTaP vaccine is followed by swelling of the entire arm or leg in which the shot was given, lasting 1-7 days (up to about 1 child in 30).

Other mild problems include:

- Fussiness (up to about 1 child in 3)
- Tiredness or poor appetite (up to about 1 child in 10)
- Vomiting (up to about 1 child in 50)

These problems generally occur 1-3 days after the shot.

Moderate Problems (Uncommon)

- Seizure (jerking or staring) (about 1 child out of 14,000)
- Non-stop crying, for 3 hours or more (up to about 1 child out of 1,000)
- High fever, over 105°F (about 1 child out of 16,000)

Severe Problems (Very Rare)

- Serious allergic reaction (less than 1 out of a million doses)
- Several other severe problems have been reported after DTaP vaccine. These include:
 - Long-term seizures, coma, or lowered consciousness
 - Permanent brain damage.

These are so rare it is hard to tell if they are caused by the vaccine.

Controlling fever is especially important for children who have had seizures, for any reason. It is also important if another family member has had seizures. You can reduce fever and pain by giving your child an *aspirin-free* pain reliever when the shot is given, and for the next 24 hours, following the package instructions.

This information is based on the [DTaP VIS](#).

DTaP vaccine (Diphtheria, Tetanus, & acellular Pertussis)

Some children should not get DTaP vaccine or should wait.

- Children with minor illnesses, such as a cold, may be vaccinated. But children who are moderately or severely ill should usually wait until they recover before getting DTaP vaccine.
- Any child who had a life-threatening allergic reaction after a dose of DTaP should not get another dose.
- Any child who suffered a brain or nervous system disease within 7 days after a dose of DTaP should not get another dose.
- Talk with your doctor if your child:
 - had a seizure or collapsed after a dose of DTaP,
 - cried non-stop for 3 hours or more after a dose of DTaP,
 - had a fever over 105°F after a dose of DTaP.

Ask your doctor for more information. Some of these children should not get another dose of pertussis vaccine, but may get a vaccine without pertussis, called **DT**.

This information was taken directly from the [DTaP VIS](#)

Hepatitis A vaccine side-effects

What are the risks from hepatitis A vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get hepatitis A vaccine do not have any problems with it.

Minor problems following hepatitis A vaccine include:

- soreness or redness where the shot was given
- low-grade fever
- headache
- tiredness

If these problems occur, they usually begin soon after the shot and last 1 or 2 days.

Your doctor can tell you more about these reactions.

Other problems that could happen after this vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your provider if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get shoulder pain that can be more severe and longer lasting than the more routine soreness that can follow injections. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

This information is based on the [Hepatitis A VIS](#).

Hepatitis A vaccine

Some people should not get this vaccine.

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**

If you ever had a life-threatening allergic reaction after a dose of hepatitis A vaccine, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Ask your health care provider if you want information about vaccine components.

- **If you are not feeling well.**

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information was taken directly from the [Hepatitis A VIS](#).

Hepatitis B vaccine side-effects

What are the risks from hepatitis B vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get hepatitis B vaccine do not have any problems with it.

Minor problems following hepatitis B vaccine include:

- soreness where the shot was given
- temperature of 99.9°F or higher

If these problems occur, they usually begin soon after the shot and last 1 or 2 days.

Your doctor can tell you more about these reactions.

Other problems that could happen after this vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting and injuries caused by a fall. Tell your provider if you feel dizzy, or have vision changes or ringing in the ears.

- Some people get shoulder pain that can be more severe and longer-lasting than the more routine soreness that can follow injections. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

This information is based on the [Hepatitis B VIS](#).

Hepatitis B vaccine

Some people should not get this vaccine.

Tell the person who is giving the vaccine:

- **If the person getting the vaccine has any severe, life-threatening allergies.**

If you ever had a life-threatening allergic reaction after a dose of hepatitis B vaccine, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Ask your health care provider if you want information about vaccine components.

- **If the person getting the vaccine is not feeling well.**

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information was taken directly from the [Hepatitis B VIS](#).

Hib vaccine side-effects

What are the risks from Hib (Haemophilus influenzae type b) vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own. Serious reactions are also possible but are rare.

Most people who get Hib vaccine do not have any problems with it.

Mild Problems following Hib vaccine:

- redness, warmth, or swelling where the shot was given
- fever

These problems are uncommon. If they occur, they usually begin soon after the shot and last 2 or 3 days.

Problems that could happen after any vaccine:

Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at fewer than 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

Older children, adolescents, and adults might also experience these problems after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

This information is based on the [Hib VIS](#).

Hib vaccine

Some people should not get this vaccine.

Hib vaccine should not be given to infants younger than 6 weeks of age.

A person who has ever had a life-threatening allergic reaction after a previous dose of Hib vaccine, OR has a severe allergy to any part of this vaccine, should not get Hib vaccine. *Tell the person giving the vaccine about any severe allergies.*

People who are mildly ill can get Hib vaccine. People who are moderately or severely ill should probably wait until they recover. Talk to your healthcare provider if the person getting the vaccine isn't feeling well on the day the shot is scheduled.

This information was taken directly from the [Hib VIS](#)

HPV–Gardasil-9 vaccine side-effects

(Human Papillomavirus Gardasil-9 vaccine)

What are the risks from HPV–Gardasil-9 vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get HPV vaccine do not have any serious problems with it.

Mild or moderate problems following HPV vaccine:

- Reactions in the arm where the shot was given:
 - Soreness (about 9 people in 10)
 - Redness or swelling (about 1 person in 3)

- Fever:
 - Mild (100°F) (about 1 person in 10)
 - Moderate (102°F) (about 1 person in 65)

- Other problems:
 - Headache (about 1 person in 3)

Problems that could happen after any injected vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

HPV (Human Papillomavirus) vaccine

Some people should not get this vaccine.

- Anyone who has had a severe (life-threatening) allergic reaction to a dose of HPV vaccine should not get another dose.
- Anyone who has a severe (life threatening) allergy to any component of HPV vaccine should not get the vaccine.
Tell your doctor if you have any severe allergies that you know of, including a severe allergy to yeast.
- HPV vaccine is not recommended for pregnant women. If you learn that you were pregnant when you were vaccinated, there is no reason to expect any problems for you or your baby. Any woman who learns she was pregnant when she got HPV vaccine is encouraged to contact the manufacturer's registry for HPV vaccination during pregnancy at 1-800-986-8999. Women who are breastfeeding may be vaccinated.
- If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information was taken directly from the HPV VIS

Influenza (inactivated) vaccine side-effects

What are the risks from inactivated influenza vaccine?

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get a flu shot do not have any problems with it.

Minor problems following a flu shot include:

- soreness, redness, or swelling where the shot was given
- hoarseness
- sore, red or itchy eyes
- cough
- fever
- aches
- headache
- itching
- fatigue

If these problems occur, they usually begin soon after the shot and last 1 or 2 days.

More serious problems following a flu shot can include the following:

- There may be a small increased risk of Guillain-Barré Syndrome (GBS) after inactivated flu vaccine. This risk has been estimated at 1 or 2 additional cases per million people vaccinated. This is much lower than the risk of severe complications from flu, which can be prevented by flu vaccine.
- Young children who get the flu shot along with pneumococcal vaccine (PCV13), and/or DTaP vaccine at the same time might be slightly more likely to have a seizure caused by fever. Ask your doctor for more information. Tell your doctor if a child who is getting flu vaccine has ever had a seizure.

Problems that could happen after any injected vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety web site](#).

This information is based on the [Inactivated Influenza VIS](#).

Influenza (inactivated) vaccine

Some people should not get this vaccine.

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**
If you ever had a life-threatening allergic reaction after a dose of flu vaccine, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Most, but not all, types of flu vaccine contain a small amount of egg protein.
- **If you ever had Guillain-Barré Syndrome (also called GBS).**
Some people with a history of GBS should not get this vaccine. This should be discussed with your doctor.

- **If you are not feeling well.**

It is usually okay to get flu vaccine when you have a mild illness, but you might be asked to come back when you feel better.

This information was taken directly from the [Inactivated Influenza VIS](#)

Influenza (live) vaccine side-effects

What are the risks from LAIV?

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own, but serious reactions are also possible.

Most people who get LAIV do not have any problems with it. Reactions to LAIV may resemble a very mild case of flu.

Problems that have been reported following LAIV:

Children and adolescents 2-17 years of age:

- runny nose/nasal congestion
- cough
- fever
- headache and muscle aches
- wheezing
- abdominal pain, vomiting, or diarrhea

Adults 18-49 years of age:

- runny nose/nasal congestion
- sore throat
- cough
- chills
- tiredness/weakness
- headache

Problems that could happen after any vaccine:

- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very small chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety web site](#).

This information is based on the [LAIV VIS](#).

Influenza (live) vaccine

Some people should not get this vaccine.

Some people should not get LAIV because of age, health conditions, or other reasons. Most of these people should get an injected flu vaccine instead. Your healthcare provider can help you decide.

Tell the provider if you or the person being vaccinated:

- have any allergies, including an allergy to eggs, or have ever had an allergic reaction to an influenza vaccine.
- have ever had Guillain-Barré Syndrome (also called GBS).
- have any long-term heart, breathing, kidney, liver, or nervous system problems.
- have asthma or breathing problems, or are a child who has had wheezing episodes.
- are pregnant.
- are a child or adolescent who is receiving aspirin or aspirin-containing products.
- have a weakened immune system.
- will be visiting or taking care of someone, within the next 7 days, who requires a protected environment (for example, following a bone marrow transplant).

Sometimes LAIV should be delayed. Tell the provider if you or the person being vaccinated:

- are not feeling well. The vaccine could be delayed until you feel better.
- have gotten any other vaccines in the past 4 weeks. *Live* vaccines given too close together might not work as well.
- have taken influenza antiviral medication in the past 48 hours.
- have a very stuffy nose.

This information was taken directly from the [Live Influenza VIS](#)

JE-IXIARO vaccine side-effects

(Japanese Encephalitis – IXIARO)

What are the risks from Japanese encephalitis vaccine?

With a vaccine, like any medicine, there is a chance of side effects. When side effects happen, they are usually mild and go away on their own.

Mild problems

- Pain, tenderness, redness, or swelling where the shot was given (about 1 person in 4).
- Fever (mainly in children).
- Headache, muscle aches (mainly in adults).

Moderate or Severe problems

- Studies have shown that severe reactions to JE vaccine are very rare.

Problems that can happen after any vaccine

- Brief fainting spells can happen after any medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Lasting shoulder pain and reduced range of motion in the arm where the shot was given can happen, very rarely, after a vaccination.
- Severe allergic reactions from a vaccine are very rare, estimated at less than 1 in a million doses. If one were to occur, it would usually be within a few minutes to a few hours after the vaccination.

The [safety of vaccines](#) is always being monitored.

This information is based on the [JE-Ixiaro VIS](#).

JE Ixiaro (Japanese Encephalitis) vaccine

Some people should not get this vaccine.

- Anyone who has had a severe (life-threatening) allergic reaction to a dose of JE vaccine should not get another dose.
- Anyone who has a severe (life threatening) allergy to any component of JE vaccine should not get the vaccine.

Tell your doctor if you have any severe allergies that you know of.

- Pregnant women should usually not get JE vaccine. If you are pregnant, check with your doctor.

If you will be traveling for fewer than 30 days, especially if you will be staying in urban areas, tell your doctor. You might not need the vaccine.

This information was taken directly from the [Japanese Encephalitis VIS](#)

MMR vaccine side-effects

(Measles, Mumps, and Rubella)

What are the risks from MMR vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions.

The risk of MMR vaccine causing serious harm, or death, is extremely small.

Getting MMR vaccine is much safer than getting measles, mumps or rubella.

Most people who get MMR vaccine do not have any serious problems with it.

Mild problems

- Fever (up to 1 person out of 6)
- Mild rash (about 1 person out of 20)
- Swelling of glands in the cheeks or neck (about 1 person out of 75)

If these problems occur, it is usually within 6-14 days after the shot. They occur less often after the second dose.

Moderate problems

- Seizure (jerking or staring) caused by fever (about 1 out of 3,000 doses)
- Temporary pain and stiffness in the joints, mostly in teenage or adult women (up to 1 out of 4)
- Temporary low platelet count, which can cause a bleeding disorder (about 1 out of 30,000 doses)

Severe problems (very rare)

- Serious allergic reaction (less than 1 out of a million doses)

- Several other severe problems have been reported after a child gets MMR vaccine, including:
 - Deafness
 - Long-term seizures, coma, or lowered consciousness
 - Permanent brain damage

These are so rare that it is hard to tell whether they are caused by the vaccine.

This information is based on the [MMR VIS](#).

MMR (Measles, Mumps, and Rubella) vaccine

Some people should not get MMR vaccine or should wait.

- Anyone who has ever had a life-threatening allergic reaction to the antibiotic neomycin, or any other component of MMR vaccine, should not get the vaccine. Tell your doctor if you have any severe allergies.
- Anyone who had a life-threatening allergic reaction to a previous dose of MMR or MMRV vaccine should not get another dose.
- Some people who are sick at the time the shot is scheduled may be advised to wait until they recover before getting MMR vaccine.
- Pregnant women should not get MMR vaccine. Pregnant women who need the vaccine should wait until after giving birth. Women should avoid getting pregnant for 4 weeks after vaccination with MMR vaccine.
- Tell your doctor if the person getting the vaccine:
 - Has HIV/AIDS, or another disease that affects the immune system
 - Is being treated with drugs that affect the immune system, such as steroids
 - Has any kind of cancer
 - Is being treated for cancer with radiation or drugs
 - Has ever had a low platelet count (a blood disorder)
 - Has gotten another vaccine within the past 4 weeks
 - Has recently had a transfusion or received other blood products

Any of these might be a reason to not get the vaccine, or delay vaccination until later.

This information was taken directly from the [MMR VIS](#)

MMRV vaccine side-effects

(Measles, Mumps, Rubella, and Varicella)

What are the risks from MMRV vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of MMRV vaccine causing serious harm, or death, is extremely small.

Getting MMRV vaccine is much safer than getting measles, mumps, rubella, or chickenpox.

Most children who get MMRV vaccine do not have any problems with it.

Mild problems

- Fever (about 1 child out of 5).
- Mild rash (about 1 child out of 20).
- Swelling of glands in the cheeks or neck (rare).

If these problems happen, it is usually within 5-12 days after the first dose. They happen less often after the second dose.

Moderate problems

- Seizure caused by fever (about 1 child in 1,250 who get MMRV), usually 5-12 days after the first dose. *They happen less often when MMR and varicella vaccines are given at the same visit as separate shots (about 1 child in 2,500 who get these two vaccines), and rarely after a 2nd dose of MMRV.*
- Temporary low platelet count, which can cause a bleeding disorder (about 1 child out of 40,000).

Severe problems (very rare)

Several severe problems have been reported following MMR vaccine, and might also happen after MMRV. These include severe allergic reactions (fewer than 4 per million), and problems such as:

- Deafness.
- Long-term seizures, coma, lowered consciousness.
- Permanent brain damage.

Because these problems occur so rarely, we can't be sure whether they are caused by the vaccine or not.

This information is based on the [MMRV VIS](#).

MMRV (Measles, Mumps, Rubella, and Varicella) vaccine

Some children should not get MMRV vaccine or should wait.

Children should not get MMRV vaccine if they:

- Have ever had a life-threatening allergic reaction to a previous dose of MMRV vaccine, or to either MMR or varicella vaccine.
- Have ever had a life-threatening allergic reaction to any *component* of the vaccine, including gelatin or the antibiotic neomycin. Tell the doctor if your child has any severe allergies.
- Have HIV/AIDS, or another disease that affects the immune system.
- Are being treated with drugs that affect the immune system, including high doses of oral steroids for 2 weeks or longer.
- Have any kind of cancer
- Are being treated for cancer with radiation or drugs

Check with your doctor if the child:

- Has a history of seizures, or has a parent, brother or sister with a history of seizures.
- Has a parent, brother or sister with a history of immune system problems.
- Has ever had a low platelet count, or another blood disorder.
- Recently had a transfusion or received other blood products.
- Might be pregnant.

Children who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting MMRV vaccine. Children who are only mildly ill may usually get the vaccine.

Ask your doctor for more information.

This information was taken directly from the [MMRV VIS](#)

Meningococcal ACWY vaccine side-effects

What are the risks from meningococcal vaccines?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own within a few days, but serious reactions are also possible.

As many as half of the people who get meningococcal ACWY vaccine have **mild problems** following vaccination, such as redness or soreness where the shot was given. If these problems occur, they usually last for 1 or 2 days. They are more common after MenACWY than after MPSV4.

A small percentage of people who receive the vaccine develop a mild fever.

Problems that could happen after any injected vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

(This information taken from Meningococcal ACWY VIS dated 3/31/16. If the actual VIS is more recent than this date, the information on this page needs to be updated.)

Meningococcal ACWY vaccine

Some people should not get this vaccine.

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**
If you have ever had a life-threatening allergic reaction after a previous dose of meningococcal ACWY vaccine, or if you have a severe allergy to any part of this vaccine, you should not get this vaccine. Your provider can tell you about the vaccine's ingredients.
- **If you are pregnant or breastfeeding.**
There is not very much information about the potential risks of this vaccine for a pregnant woman or breastfeeding mother. It should be used during pregnancy only if clearly needed.

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information was taken directly from the [Meningococcal ACWY Vaccines VIS](#)

Serogroup B Meningococcal (MenB)

Some people should not get these vaccines.

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**

If you have ever had a life-threatening allergic reaction after a previous dose of serogroup B meningococcal vaccine, or if you have a severe allergy to any part of this vaccine, you should not get the vaccine. *Tell your health care provider if you have any severe allergies that you know of, including a severe allergy to latex.* He or she can tell you about the vaccine's ingredients.

- **If you are pregnant or breastfeeding.**

There is not very much information about the potential risks of this vaccine for a pregnant woman or breastfeeding mother. It should be used during pregnancy only if clearly needed.

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information is based on the [Serogroup B Meningococcal \(MenB\) VIS](#).

(This information taken from Serogroup B Meningococcal (MenB) VIS dated 8/14/15. If the actual VIS is more recent than this date, the information on this page needs to be updated.)

PCV13 vaccine side-effects

(Pneumococcal Conjugate Vaccine)

What are the risks from PCV13?

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own, but serious reactions are also possible.

Problems reported following PCV13 varied by age and dose in the series. The most common problems reported among children were:

- About half became drowsy after the shot, had a temporary loss of appetite, or had redness or tenderness where the shot was given.

- About 1 out of 3 had swelling where the shot was given.
- About 1 out of 3 had a mild fever, and about 1 in 20 had a fever over 102.2°F.
- Up to about 8 out of 10 became fussy or irritable.

Adults have reported pain, redness, and swelling where the shot was given; also mild fever, fatigue, headache, chills, or muscle pain.

Young children who get PCV13 along with inactivated flu vaccine at the same time may be at increased risk for seizures caused by fever. Ask your doctor for more information.

Problems that could happen after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some older children and adults get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very small chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit [CDC's Vaccine Safety website](#).

This information is based on the [Pneumococcal Conjugate \(PCV13\) VIS](#).

PCV13 (Pneumococcal Conjugate) vaccine

Some people should not get this vaccine.

Anyone who has ever had a life-threatening allergic reaction to a dose of this vaccine, to an earlier pneumococcal vaccine called PCV7, or to any vaccine containing diphtheria toxoid (for example, DTaP), should not get PCV13.

Anyone with a severe allergy to any component of PCV13 should not get the vaccine. *Tell your doctor if the person being vaccinated has any severe allergies.*

If the person scheduled for vaccination is not feeling well, your healthcare provider might decide to reschedule the shot on another day.

This information was taken directly from the [PCV13 VIS](#)

PPSV23 vaccine side-effects

(Pneumococcal Polysaccharide)

What are the risks from PPSV?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own, but serious reactions are also possible.

About half of people who get PPSV have mild side effects, such as redness or pain where the shot is given, which go away within about two days.

Less than 1 out of 100 people develop a fever, muscle aches, or more severe local reactions.

Problems that could happen after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit CDC's [vaccine safety website](#).

This information is based on the [Pneumococcal Polysaccharide VIS](#).

PPSV23 (Pneumococcal Polysaccharide) vaccine

Some people should not get this vaccine.

- Anyone who has had a life-threatening allergic reaction to PPSV should not get another dose.
- Anyone who has a severe allergy to any component of PPSV should not receive it. Tell your provider if you have any severe allergies.
- Anyone who is moderately or severely ill when the shot is scheduled may be asked to wait until they recover before getting the vaccine. Someone with a mild illness can usually be vaccinated.
- Children less than 2 years of age should not receive this vaccine.

- There is no evidence that PPSV is harmful to either a pregnant woman or to her fetus. However, as a precaution, women who need the vaccine should be vaccinated before becoming pregnant, if possible.

This information was taken directly from the [PPSV VIS](#)

Polio vaccine side-effects

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own, but serious reactions are also possible.

Some people who get IPV get a sore spot where the shot was given. IPV has not been known to cause serious problems, and most people do not have any problems with it.

Other problems that could happen after this vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting and injuries caused by a fall. Tell your provider if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get shoulder pain that can be more severe and longer-lasting than the more routine soreness that can follow injections. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [vaccine safety](#) site.

This information is based on the [IPV VIS](#).

Polio vaccine

Some people should not get this vaccine.

Tell the person who is giving the vaccine:

- **If the person getting the vaccine has any severe, life-threatening allergies.**
If you ever had a life-threatening allergic reaction after a dose of IPV, or have a severe allergy to any part of this vaccine, you may be advised not to get vaccinated. Ask your health care provider if you want information about vaccine components.

- **If the person getting the vaccine is not feeling well.**

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

This information was taken directly from the [IPV VIS](#).

Rabies vaccine side-effects

What are the risks from rabies vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of a vaccine causing serious harm, or death, is extremely small. Serious problems from rabies vaccine are very rare.

Mild problems

- soreness, redness, swelling, or itching where the shot was given (30% – 74%)
- headache, nausea, abdominal pain, muscle aches, dizziness (5% – 40%)

Moderate problems

- hives, pain in the joints, fever (about 6% of booster doses)

Other nervous system disorders, such as Guillain Barré syndrome (GBS), have been reported after rabies vaccine, but this happens so rarely that it is not known whether they are related to the vaccine.

NOTE: Several brands of rabies vaccine are available in the United States, and reactions may vary between brands.

Your provider can give you more information about a particular brand.

This information is based on the [Rabies VIS](#).

Rabies vaccine

Talk with a doctor before getting rabies vaccine if you:

1. ever had a serious (life-threatening) allergic reaction to a previous dose of rabies vaccine, or to any component of the vaccine; tell your doctor if you have any severe allergies,
2. have a weakened immune system because of:
 - HIV/AIDS or another disease that affects the immune system,
 - treatment with drugs that affect the immune system, such as steroids,

- cancer, or cancer treatment with radiation or drugs.

If you have a minor illnesses, such as a cold, you can be vaccinated. If you are moderately or severely ill, you should probably wait until you recover before getting a routine (non-exposure) dose of rabies vaccine.

If you have been exposed to rabies virus, you should get the vaccine regardless of any other illnesses you may have.

This information was taken directly from the [Rabies VIS](#)

Rotavirus vaccine side-effects

What are the risks from rotavirus vaccine?

With a vaccine, like any medicine, there is a chance of side effects. These are usually mild and go away on their own. Serious side effects are also possible but are rare.

Most babies who get rotavirus vaccine do not have any problems with it. But some problems have been associated with rotavirus vaccine:

Mild problems following rotavirus vaccine:

- Babies might become irritable, or have mild, temporary diarrhea or vomiting after getting a dose of rotavirus vaccine.

Serious problems following rotavirus vaccine:

- Intussusception is a type of bowel blockage that is treated in a hospital, and could require surgery. It happens “naturally” in some babies every year in the United States, and usually there is no known reason for it.

There is also a small risk of intussusception from rotavirus vaccination, usually within a week after the 1st or 2nd vaccine dose. This additional risk is estimated to range from about 1 in 20,000 to 1 in 100,000 US infants who get rotavirus vaccine. Your doctor can give you more information.

Problems that could happen after any vaccine:

- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at fewer than 1 in a million doses, and usually happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [Vaccine Safety](#) site.

This information is based on the [Rotavirus VIS](#).

Rotavirus vaccine

Some babies should not get this vaccine.

A baby who has had a life-threatening allergic reaction to a dose of rotavirus vaccine should not get another dose. A baby who has a severe allergy to any part of rotavirus vaccine should not get the vaccine. *Tell your doctor if your baby has any severe allergies that you know of, including a severe allergy to latex.*

Babies with “severe combined immunodeficiency” (SCID) should not get rotavirus vaccine.

Babies who have had a type of bowel blockage called “intussusception” should not get rotavirus vaccine.

Babies who are mildly ill can get the vaccine. Babies who are moderately or severely ill should wait until they recover. This includes babies with moderate or severe diarrhea or vomiting.

Check with your doctor if your baby’s immune system is weakened because of:

- HIV/AIDS, or any other disease that affects the immune system
- treatment with drugs such as steroids
- cancer, or cancer treatment with x-rays or drugs

This information was taken directly from the [Rotavirus VIS](#)

Shingles (Herpes Zoster) vaccine side-effects

What are the risks from shingles vaccine?

A vaccine, like any medicine, could possibly cause serious problems, such as severe allergic reactions. However, the risk of a vaccine causing serious harm, or death, is extremely small.

No serious problems have been identified with shingles vaccine.

Mild problems

- Redness, soreness, swelling, or itching at the site of the injection (about 1 person in 3).
- Headache (about 1 person in 70).

Like all vaccines, shingles vaccine is being closely monitored for unusual or severe problems.

Shingles (Herpes Zoster) vaccine

Some people should not get shingles vaccine or should wait.

A person should not get shingles vaccine who:

- has ever had a life-threatening allergic reaction to gelatin, the antibiotic neomycin, or any other component of shingles vaccine. Tell your doctor if you have any severe allergies.
- has a weakened immune system because of current:
 - AIDS or another disease that affects the immune system,
 - treatment with drugs that affect the immune system, such as prolonged use of high-dose steroids,
 - cancer treatment such as radiation or chemotherapy,
 - cancer affecting the bone marrow or lymphatic system, such as leukemia or lymphoma.
- is pregnant, or might be pregnant. Women should not become pregnant until at least 4 weeks after getting shingles vaccine.

Someone with a minor acute illness, such as a cold, may be vaccinated. But anyone with a moderate or severe acute illness should usually wait until they recover before getting the vaccine. This includes anyone with a temperature of 101.3°F or higher.

Smallpox (Vaccinia) vaccine side-effects

This medication guide replaces the Smallpox VIS. It is to be used before one receives the vaccination. [Medical Guide for vaccination with ACAM2000](#)[6 pages] (10/1/09)

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Td vaccine

(Adult Tetanus & Diphtheria)

What are the risks from Td vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own. Serious reactions are also possible but are rare.

Most people who get Td vaccine do not have any problems with it.

Mild Problems following Td vaccine:

(Did not interfere with activities)

- Pain where the shot was given (about 8 people in 10)
- Redness or swelling where the shot was given (about 1 person in 4)
- Mild fever (rare)
- Headache (about 1 person in 4)
- Tiredness (about 1 person in 4)

Moderate Problems following Td vaccine:

(Interfered with activities, but did not require medical attention)

- Fever over 102°F (rare)

Severe Problems following Td vaccine

(Unable to perform usual activities; required medical attention)

- Swelling, severe pain, bleeding and/or redness in the arm where the shot was given (rare).

Problems that could happen after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at fewer than 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [Vaccine Safety](#) site.

This information is based on the [Td VIS](#).

Smallpox (Vaccinia) vaccine

This medication guide replaces the Smallpox VIS. It is to be used before one receives the vaccination. [Medical Guide for vaccination with ACAM2000](#)[6 pages] (10/1/09)

Tdap vaccine

(Combined Tetanus, Diphtheria & Pertussis)

What are the risks from Tdap vaccine?

With any medicine, including vaccines, there is a chance of side effects. These are usually mild and go away on their own. Serious reactions are also possible but are rare.

Most people who get Tdap vaccine do not have any problems with it.

Mild problems following Tdap:

(Did not interfere with activities)

- Pain where the shot was given (about 3 in 4 adolescents or 2 in 3 adults)
- Redness or swelling where the shot was given (about 1 person in 5)
- Mild fever of at least 100.4°F (up to about 1 in 25 adolescents or 1 in 100 adults)
- Headache (about 3 or 4 people in 10)
- Tiredness (about 1 person in 3 or 4)
- Nausea, vomiting, diarrhea, stomach ache (up to 1 in 4 adolescents or 1 in 10 adults)
- Chills, sore joints (about 1 person in 10)
- Body aches (about 1 person in 3 or 4)
- Rash, swollen glands (uncommon)

Moderate problems following Tdap:

(Interfered with activities, but did not require medical attention)

- Pain where the shot was given (up to 1 in 5 or 6)
- Redness or swelling where the shot was given (up to about 1 in 16 adolescents or 1 in 12 adults)
- Fever over 102°F (about 1 in 100 adolescents or 1 in 250 adults)
- Headache (about 1 in 7 adolescents or 1 in 10 adults)
- Nausea, vomiting, diarrhea, stomach ache (up to 1 or 3 people in 100)
- Swelling of the entire arm where the shot was given (up to about 1 in 500).

Severe problems following Tdap:

(Unable to perform usual activities; required medical attention)

- Swelling, severe pain, bleeding, and redness in the arm where the shot was given (rare).

Problems that could happen after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at fewer than 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit the [Vaccine Safety](#) site.

This information is based on the [Tdap VIS](#).

Td (Adult Tetanus & Diphtheria) vaccine

Some people should not get this vaccine.

- A person who has ever had a life-threatening allergic reaction after a previous dose of any tetanus or diphtheria containing vaccine, OR has a severe allergy to any part of this vaccine, should not get Td vaccine. *Tell the person giving the vaccine about any severe allergies.*
- Talk to your doctor if you:
 - had severe pain or swelling after any vaccine containing diphtheria or tetanus,
 - ever had a condition called Guillain Barré Syndrome (GBS),
 - aren't feeling well on the day the shot is scheduled.

This information was taken directly from the [Td VIS](#)

Tdap vaccine (Combined Tetanus, Diphtheria & Pertussis)

Some people should not get this vaccine.

- A person who has ever had a life-threatening allergic reaction after a previous dose of any diphtheria, tetanus or pertussis containing vaccine, OR has a severe allergy to any part of this vaccine, should not get Tdap vaccine. *Tell the person giving the vaccine about any severe allergies.*
- Anyone who had coma or long repeated seizures within 7 days after a childhood dose of DTP or DTaP, or a previous dose of Tdap, should not get Tdap, unless a cause other than the vaccine was found. They can still get Td.
- Talk to your doctor if you:
 - have seizures or another nervous system problem,
 - had *severe* pain or swelling after any vaccine containing diphtheria, tetanus or pertussis,
 - ever had a condition called Guillain Barré Syndrome (GBS),
 - aren't feeling well on the day the shot is scheduled.

This information was taken directly from the [Tdap VIS](#)

Typhoid vaccine side-effects

What are the risks from typhoid vaccine?

Like any medicine, a vaccine could cause a serious problem, such as a severe allergic reaction. The risk of typhoid vaccine causing serious harm, or death, is extremely small. Serious problems from either typhoid vaccine are very rare.

Inactivated typhoid vaccine (Shot)

Mild reactions

- Fever (up to about 1 person in 100)
- Headache (up to about 1 person in 30)
- Redness or swelling at the site of the injection (up to about 1 person in 15)

Live typhoid vaccine (Oral)

Mild reactions

- Fever or headache (up to about 1 person in 20)
- Stomach pain, nausea, vomiting, rash (rare)

This information is based on the [Typhoid VIS](#).

Typhoid vaccine

Some people should not get typhoid vaccine or should wait.

Inactivated typhoid vaccine (shot)

- Should not be given to children younger than 2 years of age.
- Anyone who has had a severe reaction to a previous dose of this vaccine should not get another dose.
- Anyone who has a severe allergy to any component of this vaccine should not get it. Tell your doctor if you have any severe allergies.
- Anyone who is moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting the vaccine.

Live typhoid vaccine (oral)

- Should not be given to children younger than 6 years of age.
- Anyone who has had a severe reaction to a previous dose of this vaccine should not get another dose.
- Anyone who has a severe allergy to any component of this vaccine should not get it. Tell your doctor if you have any severe allergies.
- Anyone who is moderately or severely ill at the time the vaccine is scheduled should usually wait until they recover before getting it. Tell your doctor if you have an illness involving vomiting or diarrhea.
- Anyone whose immune system is weakened should not get this vaccine. They should get the typhoid shot instead. This includes anyone who:
 - has HIV/AIDS or another disease that affects the immune system,
 - is being treated with drugs that affect the immune system, such as steroids for 2 weeks or longer,
 - has any kind of cancer,
 - is taking cancer treatment with radiation or drugs.
- Oral typhoid vaccine should not be given until at least 3 days after taking antibiotics.

Ask your doctor for more information.

This information was taken directly from the [Typhoid VIS](#)

Varicella (Chickenpox) vaccine side-effects

What are the risks from chickenpox vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of chickenpox vaccine causing serious harm, or death, is extremely small.

Getting chickenpox vaccine is much safer than getting chickenpox disease. Most people who get chickenpox vaccine do not have any problems with it. Reactions are usually more likely after the first dose than after the second.

Mild problems

- Soreness or swelling where the shot was given (about 1 out of 5 children and up to 1 out of 3 adolescents and adults)
- Fever (1 person out of 10, or less)
- Mild rash, up to a month after vaccination (1 person out of 25). It is possible for these people to infect other members of their household, but this is extremely rare.

Moderate problems

- Seizure (jerking or staring) caused by fever (very rare).

Severe problems

- Pneumonia (very rare)

Other serious problems, including severe brain reactions and low blood count, have been reported after chickenpox vaccination. These happen so rarely experts cannot tell whether they are caused by the vaccine or not. If they are, it is extremely rare.

Note: The first dose of **MMRV** vaccine has been associated with rash and higher rates of fever than MMR and varicella vaccines given separately. Rash has been reported in about 1 person in 20 and fever in about 1 person in 5.

Seizures caused by a fever are also reported more often after MMRV. These usually occur 5-12 days after the first dose.

This information is based on the [Varicella VIS](#).

Varicella (chickenpox) vaccine

Some people should not get chickenpox vaccine or should wait.

- People should not get chickenpox vaccine if they have ever had a life-threatening allergic reaction to a previous dose of chickenpox vaccine or to gelatin or the antibiotic neomycin.
- People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting chickenpox vaccine.
- Pregnant women should wait to get chickenpox vaccine until after they have given birth. Women should not get pregnant for 1 month after getting chickenpox vaccine.
- Some people should check with their doctor about whether they should get chickenpox vaccine, including anyone who:
 - Has HIV/AIDS or another disease that affects the immune system
 - Is being treated with drugs that affect the immune system, such as steroids, for 2 weeks or longer
 - Has any kind of cancer
 - Is getting cancer treatment with radiation or drugs
- People who recently had a transfusion or were given other blood products should ask their doctor when they may get chickenpox vaccine. Ask your provider for more information.

Ask your doctor for more information.

This information was taken directly from the [Varicella VIS](#)

Yellow Fever vaccine side-effects

What are the risks from Yellow Fever vaccine?

A vaccine, like any medicine, could cause a serious reaction. But the risk of a vaccine causing serious harm, or death, is extremely low.

Mild problems

Yellow fever vaccine has been associated with fever, and with aches, soreness, redness or swelling where the shot was given.

These problems occur in up to 1 person out of 4. They usually begin soon after the shot, and can last up to a week.

Severe problems

- Severe allergic reaction to a vaccine component (about 1 person in 55,000).
- Severe nervous system reaction (about 1 person in 125,000).
- Life-threatening severe illness with organ failure (about 1 person in 250,000). More than half the people who suffer this side effect die.

These last two problems have never been reported after a booster dose.

This information is based on the [Yellow Fever VIS](#).

Yellow Fever vaccine

Who should not get the yellow fever vaccine?

- Anyone with a severe (life-threatening) allergy to any component of the vaccine, including eggs, chicken proteins, or gelatin, or who has had a severe allergic reaction to a previous dose of yellow fever vaccine should not get yellow fever vaccine. *Tell your doctor if you have any severe allergies.*
- Infants younger than 6 months of age should not get the vaccine.
- Tell your doctor if:
 - You have HIV/AIDS or another disease that affects the immune system.
 - Your immune system is weakened as a result of cancer or other medical conditions, a transplant, or radiation or drug treatment (such as steroids, cancer chemotherapy, or other drugs that affect immune cell function).
 - Your thymus has been removed or you have a thymus disorder, such as myasthenia gravis, DiGeorge syndrome, or thymoma.

Your doctor will help you decide whether you can receive the vaccine.

- Adults 60 years of age and older who cannot avoid travel to a yellow fever area should discuss vaccination with their doctor. They might be at increased risk for severe problems following vaccination.
- Infants 6 through 8 months of age, pregnant women, and nursing mothers should avoid or postpone travel to an area where there is risk of yellow fever. If travel cannot be avoided, discuss vaccination with your doctor.

If you cannot get the vaccine for medical reasons, but require proof of yellow fever vaccination for travel, your doctor can give you a **waiver letter** if he considers the risk acceptably low. If you plan to use a waiver, you should also contact the embassy of the countries you plan to visit for more information.

This information was taken directly from the [Yellow Fever VIS](#)