

## Recommended Immunizations for HIV Positive Adults

Immunization Name	Associated Disease	Dosage	Comments and Warnings
<b>Recommended for All HIV Positive Adults</b>			
Hepatitis B virus (HBV)	Hepatitis B	3 shots over a 6-month period	Recommended unless there is evidence of immunity or active hepatitis. Blood test to check for HBV antibody levels should be done after completion of immunization series. Additional shots may be necessary if antibody levels are too low.
Influenza	Flu	1 shot	Must be given every year. Only injectable flu vaccine should be given to those who are HIV positive. The nasal spray vaccine (FluMist/LAIV) should not be used in this population.
Polysaccharide pneumococcal	Pneumonia	1 or 2 shots	Should be given soon after HIV diagnosis, unless vaccinated within the previous 5 years. If CD4 count is $< 200$ cells/mm <sup>3</sup> when the vaccine is given, immunization should be repeated when CD4 count is $\geq 200$ cells/mm <sup>3</sup> . Repeat one time after 5 years.
Tetanus and Diphtheria Toxoid (Td)	1. Lockjaw 2. Diphtheria	1 shot	Repeat every 10 years.
Tetanus, Diphtheria, and Pertussis (Tdap)	1. Lockjaw 2. Diphtheria 3. Pertussis	1 shot	Recommended for adults 64 years of age or younger and should be given in place of next Td booster. Can be given as soon as 2 years after last Td for persons in close contact with babies under 12 months and health care workers.
<b>Recommended for Some HIV Positive Adults</b>			
Hepatitis A virus (HAV)	Hepatitis A	2 shots over a 1 or 1.5 year period	Recommended for health care workers, men who have sex with men, injection drug users, people with chronic liver disease (including chronic hepatitis B or C), hemophiliacs, and people traveling to certain parts of the world.
Hepatitis A/Hepatitis B combined vaccine (Twinrix)	1. Hepatitis A 2. Hepatitis B	3 shots over a 6 month period or 4 shots over a 1-year period	Can be used in those who require both HAV and HBV immunization.
<i>Haemophilus influenzae</i> type B	Bacterial meningitis	1 shot	HIV positive adults and their health care providers should discuss whether <i>Haemophilus influenzae</i> immunization is needed.
Human papillomavirus (HPV)	Human papillomavirus	3 shots over 6 months	Recommended for females ages 9-26. Not recommended to be given during pregnancy.
Measles, Mumps, and Rubella (MMR)	1. Measles 2. Mumps 3. Rubella (German Measles)	1 or 2 shots	People born before 1957 do not need to receive this vaccine. HIV positive adults with CD4 counts $< 200$ cells/mm <sup>3</sup> , a history of AIDS-defining illness, or clinical symptoms of HIV should not get the MMR vaccine. Each component can be given separately if needed to achieve adequate antibody levels.
Meningococcal	Bacterial meningitis	1 or 2 shots	Recommended for college students, military recruits, people who do not have a spleen, and people traveling to certain parts of the world. Repeat after 5 years if still at risk for infection.
Varicella	Chickenpox	2 shots over 4-8 weeks	People born before 1980 do not need to receive this vaccine. Recommended unless there is evidence of immunity or CD4 count is 200 cells/mm <sup>3</sup> or below. Not recommended to be given during pregnancy.

## Recommended Immunizations for HIV Positive Adults (continued)

### Not Recommended for HIV Positive Adults

Anthrax	Anthrax	The currently available smallpox vaccine is a live viral vaccine. Some live vaccines are not recommended for people with HIV. Although the currently licensed anthrax vaccine is not a live vaccine, the Advisory Committee on Immunization Practices does not recommend routine anthrax vaccination.
Smallpox	Smallpox	
Zoster*	Shingles	

\* Immunization for adults 60 years of age and older