

A Guide to Vaccines for Adults: Before My Kidney Transplant

Why do I need to get vaccinated before my transplant?

Your immune system will be weakened after transplant, making you more vulnerable to preventable diseases. Vaccines can protect you against these diseases, but they are most effective before transplant. After transplant, your immune system is less able to respond to vaccines and develop **immunity** (the body's response to a disease which can prevent future infection). The best time to get vaccinated is now!

What vaccines do I need before transplant?

See the table on pages 2-3 for a summary of which vaccines you may need. Below are the two types of vaccines discussed in this handout.

Inactivated vaccine

Inactivated vaccines use the killed version of the germ that causes a disease. They usually don't provide immunity (protection) that's as strong as live vaccines. So you may need several doses over time (booster shots) in order to get ongoing immunity against diseases.

Live vaccine

Live vaccines should be avoided if you have an immunocompromising condition or take a medication that weakens the immune system. Live vaccines will not be given after transplant.

Live vaccines use a weakened form of the germ that causes a disease. Because these vaccines are so similar to the natural infection that they help prevent, they create a strong and long-lasting immune response. Just 1 or 2 doses of most live vaccines can give you a lifetime of protection against a germ and the disease it causes.

Inactivated vaccines		
What is the vaccine?	Who gets it?	How often is it given?
Influenza (Flu)	Everyone	1 dose every year
Hepatitis A	Everyone	2 doses over 6 months
Hepatitis B	Everyone	Depends on the vaccine. For Heplisav-B vaccine: 2 doses separated by 1 month. For Twinrix or Recombivax HB vaccine: 3 doses over 6 months. For Engerix-B vaccine: 4 doses over 6 months.
Herpes Zoster (Shingrix)	50 years or older	2 doses separated by 2-6 months
Human papillomavirus	26 years or younger	2-3 doses over 6 months
Pneumonia:		
What is the vaccine?	Who gets it?	How often is it given?
Pneumovax (PPSV23)	Everyone	For ages 19-64 years : 2 doses separated by 5 years. For ages 65 years and older : 1 dose separated from last dose by 5 years.
Tetanus:		
What is the vaccine?	Who gets it?	How often is it given?
Td	Everyone	Booster dose every 10 years

Live vaccines

- Check with your doctor before getting live vaccines if you have **immunocompromising conditions or take medications that weaken the immune system.**
- You must get live vaccines at least **4 weeks before transplant.** Live vaccines will not be given after transplant.

What is the vaccine?	Who gets it?	How often is it given?
Measles, mumps, rubella (MMR)	Everyone <i>(read comments above)</i>	1-2 doses separated by 1 month
Varicella	Everyone without a history of chickenpox <i>(read comments above)</i>	2 doses over 6-months

How do I know which vaccines I have already received?

To determine which vaccines you have received, you can review your vaccination record with your primary care doctor, nephrologist (kidney specialist), or dialysis center.

Where can I receive the vaccines I need?

Vaccines may be given by your primary care doctor, local pharmacy, or dialysis center. Ask if they have the vaccine(s) you need in stock.

In-depth details about vaccines:

Influenza (Flu)

Why is it recommended?

The flu can cause serious illness requiring hospital stays and even death. The risk for catching the flu is even greater after transplant.

Why do I need it annually?

Since a person's immunity declines over time, an annual vaccine provides the best protection. Flu viruses are constantly changing and flu vaccines are updated every season.

Hepatitis A & B

Why is it recommended?

Hepatitis A and B can cause infection of the liver.

Herpes Zoster (Shingles)

There are two shingles vaccines:

- 1) Shingrix (inactivated vaccine)
- 2) Zostavax (live vaccine)

Only the Shingrix (inactivated) vaccine is recommended because it is more effective. The Zostavax (live) vaccine is not recommended, and since it is a live vaccine it should not be given if you are immunocompromised.

Why is it recommended?

Anyone who has a history of chickenpox or anyone who has received the chickenpox vaccine is at risk for developing shingles. The virus remains in the body lifelong and may reactivate when someone is under stress or immunocompromised. The risk for developing shingles is greatly increased in solid organ transplant recipients.

I have already received a different shingles vaccine, Zostavax, do I still need Shingrix?

Yes, Shingrix has been shown to provide better protection against shingles.

I have already had shingles; do I still need this vaccine?

Yes, receiving this vaccine will reduce the risk of shingles occurring again.

Human papillomavirus (HPV)

Why is it recommended?

Human papillomavirus is a virus that can lead to certain types of cancer in men and women. Solid organ transplant recipients have an increased risk of developing cancer related to an HPV infection.

Pneumococcal (Pneumonia)

Key point

There are two vaccines: Prevnar and Pneumovax. Both are required since they cover different strains (types) of pneumococcal-causing bacteria. These vaccines provide greater protection together than they do alone.

Why is it recommended?

The pneumococcal vaccines provide protection against certain bacteria that causes not only pneumonia, but also meningitis and blood stream infections.

Tetanus (Td, Tdap)

Why is it recommended?

This vaccine protects against tetanus (lockjaw), diphtheria, and pertussis (whooping cough). These diseases are associated with serious infection and high risk of death.

What if I don't know if I've received the one-time Tdap?

The CDC recommends to receive the Tdap vaccine if you are unsure if you have received it in the past.

Measles, mumps, rubella (MMR)

Key point:

This is a **live** vaccine and should **not** be given if you are immunocompromised (it is not given after transplant).

Why is it recommended?

These are highly contagious diseases. Almost everyone in contact with someone with the diseases will become infected. They may cause severe complications.

Varicella

Key point:

This is a **live** vaccine and should **not** be given if you are immunocompromised (it is not given after transplant).

Why do I need it?

People without a history of chickenpox are at risk of Varicella, the virus that causes it.

Want more information?

We recommend you visit the Centers for Disease Control and Prevention (CDC) webpage about getting vaccines as an adult:

<https://www.cdc.gov/vaccines/adults/index.html>

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