

Tick-borne Encephalitis (TBE) Vaccine: *What You Need to Know*

Many vaccine information statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1. Why get vaccinated?

Tick-borne encephalitis vaccine can prevent **tick-borne encephalitis**.

Tick-borne encephalitis, or TBE, is caused by a virus that is spread through the bite of an infected tick. TBE virus can be found in parts of Europe and Asia. TBE virus is not found in the United States. TBE is a rare disease in travelers, but people traveling overseas to areas where the virus is found might be at risk for infection. The ticks that spread the virus usually live in wooded areas and are most active between April and November. Taking part in activities like hiking, camping, fishing, or trail running increases the risk for exposure to ticks. Occasionally, TBE virus can be spread through other ways such as eating or drinking raw milk or cheese from infected goats, sheep, or cows. Laboratory infections with TBE virus have sometimes occurred.

Many people infected with TBE virus have no symptoms, but some get very sick. Early symptoms can include fever, headache, nausea, vomiting, or weakness. Later, a person might develop an infection of the brain (encephalitis) or lining of the brain and spinal cord (meningitis).

- Symptoms of encephalitis can include drowsiness, confusion, or problems with motor abilities, such as paralysis.
- Symptoms of meningitis can include fever, headache, and a stiff neck.

Some people who recover from TBE have long-term problems, such as difficulties with memory or concentration or more severe problems like paralysis of arms or legs or difficulty speaking.

In very severe cases, TBE can lead to death.

2. Tick-borne encephalitis vaccine

TBE vaccine is recommended for people who are moving or traveling outside the United States to a place where TBE virus spreads and will have extensive exposure to ticks based on their planned outdoor activities and itinerary.

TBE vaccine may also be considered for people moving or traveling to a place where TBE virus spreads and might take part in activities in areas ticks are likely to be found. In this case, the decision about vaccination should be based on factors like where the person is traveling, their planned activities, any risk factors for more severe disease, and personal perception and tolerance of risk.

TBE vaccine is recommended for many laboratory workers who might be exposed to the TBE virus.

TBE vaccine is given as three-dose primary series. People 1 through 15 years of age get a smaller dose (0.25 mL) than people 16 years and older (0.5 mL).

- **Infants, children, and adolescents** 1 through 15 years of age should get their second dose 1 to 3 months after the first dose, with the third dose 5 to 12 months after the second dose.
- **Older adolescents and adults** 16 years and older should get the second dose 14 days to 3 months after the first dose, and the third dose 5 to 12 months after the second dose.

A booster dose (fourth dose) may be given at least 3 years after the third dose for people who are at risk of ongoing exposure or re-exposure to TBE virus.

TBE vaccine may be given at the same time as other vaccines.



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3. Talk with your health care provider

Tell your vaccination provider if the person getting the vaccine:

- Has had an **allergic reaction after a previous dose of TBE vaccine**, or has **any severe, life-threatening allergies**

In some cases, your health care provider may decide to postpone TBE vaccination until a future visit.

People with minor illnesses, such as a cold, may be vaccinated. People who are moderately or severely ill should usually wait until they recover before getting TBE vaccine.

Your health care provider can give you more information.

4. Risks of a vaccine reaction

- Soreness or pain where the shot is given can happen.
- Headache, fever, or restlessness were some of the most common reactions in infants, children, and adolescents 1 through 15 years of age.
- Tiredness, headache, and muscle aches were some of the most common reactions in people 16 years of age and older.

People sometimes faint after medical procedures, including vaccination. Tell your provider if you feel dizzy or have vision changes or ringing in the ears.

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

5. What if there is a serious problem?

An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call **9-1-1** and get the person to the nearest hospital.

For other signs that concern you, call your health care provider.

Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at www.vaers.hhs.gov or call **1-800-822-7967**. *VAERS is only for reporting reactions, and VAERS staff members do not give medical advice.*

6. How can I learn more?

- Ask your health care provider.
- Call your local or state health department.
- Visit the Food and Drug Administration (FDA) website for vaccine package inserts and additional information at www.fda.gov/vaccines-blood-biologics/vaccines.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or
 - Visit CDC's website at www.cdc.gov/tick-borne-encephalitis/index.html.

