Japanese encephalitis (JE) is a serious infection caused by a virus. It occurs in certain rural parts of Asia.

Encephalitis means swelling of the brain. JE spreads through the bite of infected mosquitoes. It cannot spread directly from one person to another.

Japanese encephalitis can cause:
- Mild infections with fever and headache.
- Severe infections with encephalitis. About 1 in 4 of such cases results in death. Symptoms of more severe infection are headache, high fever, neck stiffness, stupor, disorientation, abnormal movements, occasional convulsions (especially in infants), coma, and paralysis.

How can I prevent Japanese encephalitis?

Protection from Mosquitoes

As with any disease transmitted by mosquitoes, you can prevent exposure to JE virus by:
- remaining in well-screened areas,
- wearing clothes that cover most of the body, and
- using an effective insect repellent, such as those containing up to 30% N,N-diethyl metatoluamide (DEET) on skin and clothing. Use of permethrin on clothing will also help prevent mosquito bites.

Japanese encephalitis Vaccine

Japanese encephalitis vaccine can prevent JE.

(NOTE: JE vaccine is not 100% effective and is not a substitute for mosquito precautions.)

Who should get Japanese encephalitis vaccine and when?

Who?
People who live or travel in certain rural parts of Asia should get the vaccine.
Laboratory workers at risk of exposure to JE virus should also be vaccinated.

When?
- Three doses of vaccine are given, with the 2nd dose given 7 days after the 1st and the 3rd dose given 30 days after the 1st.
- The third dose should be given at least 10 days before travel, to be sure the vaccine begins to protect and to allow for medical care if there are delayed side effects.
- A booster dose may be needed after 2 years.

Children 1 - 3 years of age get a smaller dose than older children and adults. Children younger than 1 year of age should not normally get the vaccine.

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

Who should NOT get Japanese encephalitis vaccine?

- Anyone who has ever had a life-threatening reaction to mouse protein, thimerosal, or to a previous dose of JE vaccine.
- Tell your doctor if you:
  - have severe allergies, especially a history of allergic rash (hives) or wheezing after a wasp sting or taking medications,
  - are pregnant, or are a nursing mother,
  - will be traveling for fewer than 30 days, especially if you will be in major urban areas. (You may be at lower risk for Japanese encephalitis and not need the vaccine.)
5 What are the risks from Japanese encephalitis 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.

Mild Problems
- soreness, redness, or swelling where the shot was given (about 1 person in 5)
- fever
- headache
- muscle pain
- abdominal pain
- rash
- chills
- nausea/vomiting
- dizziness

If these problems occur, they usually begin soon after the shot and last for a couple of days.

Moderate or Severe Problems
- Serious allergic reactions including rash; swelling of the hands and feet, face, or lips; and breathing difficulty. These have occurred within minutes to as long as 10 to 17 days after receiving the vaccine, usually about 48 hours after the vaccination. (About 60 per 10,000 people vaccinated have had allergic reactions to JE vaccine.)
- Other severe problems, such as seizures or nervous system problems, have been reported. These are rare (probably less than 1 per 50,000 people vaccinated).

6 What if there is a moderate or severe reaction?

What should I look for?
Look for any unusual conditions, such as high fever, allergic symptoms or neurologic problems that occur 1-30 days after vaccination. Signs of an allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, swelling of extremities, face, or lips, paleness, weakness, a fast heartbeat, or dizziness within a few minutes up to two weeks after the shot.

What should I do?
• Call a doctor, or get the person to a doctor right away.
• Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
• Ask the clinic where you received the vaccine to save any left over vaccine and the vaccine vial, and record the lot number.
• Ask your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS website at www.vaers.hhs.gov, or by calling 1-800-822-7967.

VAERS does not provide medical advice.

7 How can I learn more?

• Ask your doctor or nurse. They can show you the vaccine package insert or suggest other sources of information.
• Call your local or state health department.
• Contact the Centers for Disease Control and Prevention (CDC):
  - Visit the CDC Travelers' Health website at www.cdc.gov/travel/diseases.htm
  - Or other CDC websites at www.cdc.gov/ncidod/dvbid/jencephalitis/index.htm or ftp.cdc.gov/pub/Publications/mmwr/rr/rr4201.pdf