What is Epstein-Barr Virus (EBV)?

Epstein-Barr virus (EBV), also known as human herpesvirus 4, is a member of the herpes virus family. It is one of the most common human viruses. EBV is found all over the world. Most people (90%) get infected with EBV at some point in their lives. EBV spreads most commonly through bodily fluids, primarily saliva. EBV can cause [infectious mononucleosis](https://www.cdc.gov/epstein-barr/about-mono.html), also called “mono”, and other illnesses.

Symptoms of EBV infection can include:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fatigue | Fever | Inflamed throat | Swollen lymph nodes | Enlarged spleen |
| Swollen  liver | Rash |  |  |  |

* Many people become infected with EBV in childhood. EBV infections in children usually do not cause symptoms, or the symptoms are not distinguishable from other mild, brief childhood illnesses. People who get symptoms from EBV infection, usually teenagers or adults, get better in two to four weeks. However, some people may feel fatigued for several weeks or even months.
* After you get an EBV infection, the virus becomes latent (inactive) in your body. In some cases, the virus may reactivate. This has been seen more lately after having the Covid virus. This does not always cause symptoms, but people with weakened immune systems are more likely to develop symptoms if EBV reactivates.

## Diagnosis

Diagnosing EBV infection can be challenging because the [symptoms](https://www.cdc.gov/epstein-barr/about-ebv.html#symptoms) are similar to other illnesses. EBV infection can be confirmed with a blood test that detects antibodies. About nine out of ten of adults have antibodies that show that they have a current or past EBV infection

Content source: [National Center for Immunization and Respiratory   
Diseases](https://www.cdc.gov/ncird/), 2020; CDC, 2020.

Prevention & Treatment

There is no vaccine to protect against EBV infection. You can help protect yourself by not kissing or sharing drinks, food, or personal items, like toothbrushes, with people who have EBV infection.

There is no specific treatment for EBV. However, some things can be done to help relieve symptoms, including

* drinking fluids to stay hydrated
* getting plenty of rest
* taking over-the-counter medications or supplements for pain and fever

# Laboratory Testing

# Epstein-Barr virus (EBV), also known as human herpesvirus 4, is a gamma herpes virus that occurs only in humans. Laboratory testing can help distinguish whether someone is susceptible to EBV infection or has a recent or past infection.

Healthcare providers can test for antibodies to the following EBV-associated antigens:

* **Viral capsid antigen (VCA)**
  + Anti-VCA IgM appears early in EBV infection and usually disappears within four to six weeks.
  + Anti-VCA IgG appears in the acute phase of EBV infection, peaks at two to four weeks after onset, declines slightly then persists for the rest of a person’s life.
* **Early antigen (EA)**  
  Anti-EA IgG appears in the acute phase of illness and generally falls to undetectable levels after three to six months. In many people, detection of antibody to EA is a sign of active infection. ***However, 20% of healthy people may have antibodies against EA for years.***
* **EBV nuclear antigen (EBNA)**  
  Antibody to EBNA, determined by the standard immunofluorescent test, is not seen in the acute phase of EBV infection but slowly appears two to four months after onset of symptoms and persists for the rest of a person’s life. Other EBNA enzyme immunoassays may report false positive results.
* **Monospot test**  
  The Monospot test is not recommended for general use. The antibodies detected by Monospot can be caused by conditions other than infectious mononucleosis. Moreover, studies have shown that the Monospot produces both false positive and false negative results.

Content source: [National Center for Immunization and Respiratory Diseases](https://www.cdc.gov/ncird/), 2020; CDC, 2020.

Talk to your healthcare provider if you would like to learn more about EBV or EBV testing.

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