

Mononucleosis (Epstein-Barr Virus Infection, Mono)

Infectious mononucleosis, also known as mono, is a viral disease that affects certain blood cells. It is most commonly caused by the Epstein-Barr virus (EBV), which is a member of the herpes virus family, but other viruses can also cause this disease. Most cases occur sporadically, and outbreaks are rare.

Transmission

Although anyone can contract mono, it is most common among teenagers and young adults, especially college students. At least one in four teenagers and young adults who get infected with EBV will develop infectious mononucleosis. This virus is spread by:

- **Person-to-person contact** via saliva (on hands, toys, or kissing).
 - Blood transfusions followed by an organ transplant. This type of spread is rare.

Although past infection makes someone immune, mono can be intermittently excreted in the saliva for a lifetime after one's infection, which likely explains the high prevalence in the community.

Symptoms

Symptoms from mono typically appear 30 to 50 days after exposure and include the following:

- **Severe fatigue**
- **Fever**
- **Sore throat**
- **Head and body aches**
- **Swollen lymph nodes** in the neck and armpits
- **Enlarged liver and spleen**
- **Occasional rash** in those treated with ampicillin, amoxicillin, or other penicillins

Most people feel better in two to four weeks, however, 10% of cases may experience fatigue lasting six months or more. Infections in young children are broad and usually have mild or no symptoms.

Diagnosis

A health care provider usually diagnoses mono based on symptoms. Laboratory tests are not usually needed but may be used in people who do not have a typical case.

Prevention

- **Clean and sanitize toys and utensils** before they are shared
- **Avoid kissing** individuals who have EBV
- **Prevent sharing drinks, food, or personal items**, like toothbrushes with individuals who have EBV
- **Wash hands** often

Treatment

There is no specific antiviral treatment approved for EBV infection. Symptoms can be relieved by:

- **Drinking fluids and staying hydrated.**
- **Getting plenty of rest.**
- **Taking over-the-counter medications** for pain and fever.
 - You should not take penicillin antibiotics like ampicillin or amoxicillin.

Due to the severity of symptoms, a health care provider may recommend treatment of specific organ systems that are affected. Health care providers may prescribe supportive treatment.

For more information about the treatment of mononucleosis, contact your health care provider visit [Epstein-Barr and Infectious Mononucleosis \(Mono\) | CDC](#).

Exclusion Guidance

Individuals with mononucleosis should not be excluded from work, school, or childcare unless the [general exclusions apply](#).

- As your spleen may become enlarged as a result of infectious mononucleosis, **contact sports should be avoided for the first three weeks of symptom onset.**
- Talk to your health care provider about when you should return to strenuous activity and contact sports.

For additional information about mononucleosis, contact the North Dakota Department of Health and Human Services' Division of Public Health at 800.427.2180.

Resources:

1. Centers for Disease Control and Prevention. (2020, September 28). *Epstein-Barr Virus and Infectious Mononucleosis*. Centers for Disease Control and Prevention. Retrieved May 9, 2023, from <https://www.cdc.gov/Epstein-barr/index/h>
2. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 32nd ed. American Academy of Pediatrics. [Epstein-Barr Virus Infections Infectious Mononucleosis] [pages 318-322].