

Mononucleosis



By Deb Ilardi, RN, BSN — Clinical Editor, *School Nurse News*

Not a week goes by in our busy high school health office without someone relaying their diagnosis of “mono.” The common cold, the flu, even the dreaded head lice, seem to shrink from the scene as adolescents fall victim to this disease. Just today a mother called me and said her daughter was worried about a friend who had shared water bottles with the daughter, who is now infected with EBV.

EBV (Epstein - BarrVirus) infectious mononucleosis (also known as Pfeiffer’s disease, colloquially as the kissing disease, or as mono in Northern America and more commonly known as glandular fever in other English-speaking countries) is an infectious, viral disease that most commonly occurs in adolescents and young adults. It is characterized by fever, sore throat and fatigue, along with several other possible signs and symptoms. It is primarily diagnosed by observation of symptoms, but suspicion can be confirmed by several diagnostic tests (Wikipedia).

When Ashley came home with a headache and body aches and pains, she thought she had caught the flu. But by the next morning, her temperature had soared to 103°F (39°C) and her throat felt like she’d swallowed “hot coals.” Even worse, she was so tired she could hardly lift her head off the pillow. Ashley had never felt this bad with any cold or flu. Her mother took her to the doctor, where a physical examination and a blood test revealed that she had mononucleosis (Nemour’s Foundation, 2007).

Conclusion

Not every adolescent or even every parent or staff member will need this much information or detail. Still, all of this material is available by searching online. Make sure that what you are telling people is current and accurate. Perhaps your district likes to create short memos or flyers for education about disease prevention and the expected course of an illness. If that is the case, the variety of websites provided here will give you clear facts from which to design your own materials.

REFERENCES ACCESSED IN DECEMBER 2008:

CDC, <http://www.cdc.gov/ncidod/diseases/ebv.htm>

Emedicine, http://www.emedicinehealth.com/mononucleosis/page10_em.htm

Lamprecht, Catherine MD, 2007, Teens Health, <http://kidshealth.org/teen/infections/common/mononucleosis.html>

Mayo Clinic, 2008, <http://www.mayoclinic.com/health/mononucleosis/DS00352>

Teens’ Health, Nemour’s Foundation, 2007, <http://kidshealth.org/teen/infections/common/mononucleosis.html>

WebMD, <http://www.webmd.com/a-to-z-guides/infectious-mononucleosis-symptoms>

Wikipedia, http://en.wikipedia.org/wiki/Infectious_mononucleosis

ABOUT THE AUTHOR

Deb Ilardi, RN, BSN is the Clinical Editor of *School Nurse News*. She works as a school nurse for the North Syracuse Central School District, currently at Cicero-North Syracuse High School. She is a Past President of the New York State Association of School Nurses, has served as President of her local chapter, Zone 10, and as a Director to the Board of the National Association of School Nurses. Deb enjoys mentoring new authors and welcomes your ideas and suggestions.

How Do I Know if I Have It?

Symptoms usually begin to appear 4 to 7 weeks after infection with the virus. Signs that you may have mono include:

- constant fatigue
- fever
- sore throat
- loss of appetite
- swollen lymph nodes (commonly called glands, located in the neck, underarms, and groin)
- headaches
- sore muscles
- larger-than-normal liver or spleen
- skin rash
- abdominal pain

People who have mono may have different combinations of these symptoms, and some may have symptoms so mild that they hardly notice them. Others may have no symptoms at all. Even if you have several of these symptoms, don't try to diagnose yourself. Always consult your doctor if you have a fever, sore throat, and swollen glands or are unusually tired for no apparent reason. Because the symptoms of mono are so general and can be signs of other illnesses, it's possible to mistake mononucleosis for the flu, strep throat, or other diseases. In fact, occasionally some people have mono and strep throat at the same time.

When making a diagnosis, the doctor may want to do some blood tests to see if mono is causing the symptoms. However, even if the blood tests indicate mono, there isn't much the doctor can do other than advise drinking lots of fluids and getting plenty of rest (Lamprecht, 2007).

Preparing For Your Appointment

If you suspect you have mononucleosis, most likely you will see your family doctor. Because appointments can be brief, and because there's often a lot of ground to cover, it is a good idea to be well-prepared for your appointment. Here is some information to help you get ready for your appointment, and what to expect from your doctor.

Diagnosis: EBV-Specific Laboratory Tests

Laboratory tests are not always foolproof. For various reasons, false-positive and false-negative results can occur for any test. However, the laboratory tests for EBV are for the most part accurate and specific. Because the antibody response in primary EBV infection appears to be quite rapid, in most cases testing paired acute- and convalescent-phase serum samples will not demonstrate a significant change in antibody level. Effective laboratory diagnosis can be made on a single acute-phase serum sample by testing for antibodies to several EBV-associated antigens simultaneously. In most cases, a distinction can be made as to whether a person is susceptible to EBV, has had a recent infection, has had infection in the past, or has a reactivated EBV infection (CDC, 2008).

WHAT YOU CAN DO

- Write down any symptoms you're experiencing, including any that may seem unrelated to the reason for which you scheduled the appointment.
- Write down key personal information, including any major stresses, recent life changes or exposure to anyone with mononucleosis.
- Bring a list of all medications, as well as any vitamins or supplements, that you are taking.
- Write down questions to ask your doctor.

Your time with your doctor is limited, so preparing a list of questions ahead of time will help you make the most of your time together. List your questions from most important to least important in case time runs out. For mononucleosis, some basic questions include:

- What is causing my symptoms or condition?
- Other than the most likely cause, what are other possible causes for my symptoms or condition?
- What kinds of tests do I need?
- I have these other health conditions. How can I best manage them?
- Are there any restrictions that I need to follow?
- Do I need to stay home from work or school and for how long?
- When can I return to strenuous activities and sports?
- Are there any medications I need to avoid with mononucleosis?
- Are there any brochures or other printed material that I can take home with me? What Web sites do you recommend?

In addition to the questions that you've prepared, don't hesitate to ask questions during your appointment when you don't understand something.

WHAT TO EXPECT FROM YOUR DOCTOR

Your doctor is likely to ask you a number of questions. Being ready to answer them may reserve time to go over points on which you want to spend more time. Your doctor may ask:

- When did you first begin experiencing symptoms?
- Have you been exposed to anyone with mononucleosis?
- Have your symptoms been continuous, or occasional?
- How severe are your symptoms?
- What, if anything, seems to improve your symptoms?
- What, if anything, appears to worsen your symptoms?

WHAT YOU CAN DO IN THE MEANTIME

If you think you have mononucleosis and are waiting for your appointment, get adequate rest and drink fluids. These are the primary treatments for mono. To avoid spreading the infection, don't kiss anyone or share items such as glasses, utensils, foods or drinks. Avoid strenuous activity and contact sports.

IMPROVING ADOLESCENTS' AWARENESS OF Mononucleosis

Lifestyle and Home Remedies

In addition to getting plenty of bed rest, these steps can help relieve symptoms of mononucleosis:

- Drink plenty of water and fruit juices. Fluids help relieve fever and sore throat and prevent dehydration.
- Take an over-the-counter pain reliever. Use pain relievers such as acetaminophen (Tylenol, others) or ibuprofen (Advil, Motrin, others) as needed. These medicines have no antiviral properties. The only reasons to take them are to relieve pain or a fever. (Don't give aspirin to a child under age 16, since it may trigger the rare, but potentially fatal disorder known as Reye's syndrome.)
- Gargle with salt water. Do this several times a day to relieve sore throat. Mix 1/2 teaspoon (2.5 grams) salt in 8 ounces (237 milliliters) of warm water.

Wait to return to sports and some other activities. Most signs and symptoms of mononucleosis ease within a few weeks, but it may be 2 to 3 months before you feel completely normal. The more rest you get, the sooner you should recover. Returning to your usual schedule too soon can increase the risk of a relapse. If you are an athlete, be cautious about returning to strenuous activities or contact sports, especially if your spleen is enlarged, because of the increased risk of rupturing the spleen. (This applies to children with an enlarged spleen due to mono also.) Rupture of the spleen results in severe bleeding and is a dire medical emergency. Doctors suggest you avoid contact sports for at least 1 month after you've had mononucleosis, depending on how long it takes your spleen to return to normal size.

Although you may not be able to return to vigorous activities right away, your doctor may recommend gradual exercise to help you rebuild your strength as you recover from mononucleosis. Mononucleosis can be a prolonged condition, keeping you at home for weeks as you recover. But be patient with your body as it fights the infection. For young people, having mononucleosis will mean some missed activities — classes, sports and parties. Without doubt, you'll need to take it easy for a while. If you have mononucleosis, you don't necessarily need to be quarantined. Many people are already immune to the Epstein-Barr virus that causes the disease because of prior exposure to the virus as a child, but plan on staying home from school and other activities until you're feeling better.

Seek the help of friends and family as you recover from mononucleosis. College students should also contact the campus student health center staff for assistance or treatment, if necessary (Mayo Clinic, 2008).

What Increases Your Risk

You are at increased risk of getting mono if you:

- Are between the ages of 10 and 24, especially if you are in close contact with many people. In the United States, college students, nurses, and people in the military are most likely to get mono.
- Have intimate contact with a person who has mono or an active EBV infection. (A brief kiss on the lips is not likely to spread EBV. It is spread when saliva from an infected person gets into another person's mouth.)

- Share drinking glasses, eating utensils, dishes, or a toothbrush with an infected person. A person does not have to have symptoms of mono to spread EBV.
- After you have been infected with EBV, the virus may stay in your body for the rest of your life, but you will not get mono again. EBV is not spread through the air. You can live with a person who has mono and never become infected with the virus. Most people have been infected with EBV before, so they usually don't get mono when exposed to a person who has it (WebMD, 2007).

Prevention

Mononucleosis is spread through saliva. If you're infected, you can help prevent spreading the virus to others by not kissing them and by not sharing food, dishes, glasses and utensils until several days after your fever has subsided and even longer, if possible. The Epstein-Barr virus may persist in your saliva for months after the infection. There is no vaccine to prevent mononucleosis (Mayo Clinic, 2008).

Outlook

Mononucleosis runs its course, and the infection typically goes away in 2–4 weeks. More than 95% of people recover normally. Complications are uncommon but may be life-threatening. Death from mononucleosis is very rare and most often occurs if the spleen ruptures, if the airway is blocked, or if neurologic complications arise.

- The spleen (which is an organ that is actually like a big lymph node) ruptures in about 0.5% of people with mononucleosis. Approximately 90% of these cases occur in males. Rupture usually occurs during the second or third week of the illness. Typically, the person is feeling better and resumes strenuous activities, thus endangering himself or herself. If the spleen ruptures, doctors may need to remove it.
- Airway obstruction occurs in one out of every 100–1,000 cases of mononucleosis. It may occur at any age, but it is more common in young children. Corticosteroids may be used to treat this complication.
- Autoimmune hemolytic anemia (a condition in which the body destroys its own red blood cells) occurs in 1% to 3% of people with mononucleosis. It usually becomes clinically apparent during the second or third week of illness. Corticosteroids may be used to treat this complication.
- Thrombocytopenia, which is a decrease in platelets in the blood, has been noted in up to 50% of people with mononucleosis. It is usually mild and not life-threatening. If severe, corticosteroids may be used to treat this complication also.
- Hepatitis caused by the Epstein-Barr virus occurs in most (80%–90%) people with mononucleosis. The hepatitis infection is usually mild and resolves by itself.
- Neurologic complications may occur, although rarely. These might include seizures, Guillain-Barré syndrome, Bell's palsy, transverse myelitis, encephalitis, meningitis, and cranial nerve palsies.
- Complications involving the heart, lungs, or kidneys rarely occur (eMedicine, 2008). 🐼