Microvascular Cranial Nerve Palsy (MCNP)

What is microvascular cranial nerve palsy?

Microvascular Cranial Nerve Palsy (MCNP) is when blood flow to certain nerves in your head (called cranial nerves) is blocked. As a result, you may not be able to move your eye a certain way. Also, you will have double vision. Double vision is when you see two of a single image—either side by side, or one above the other.

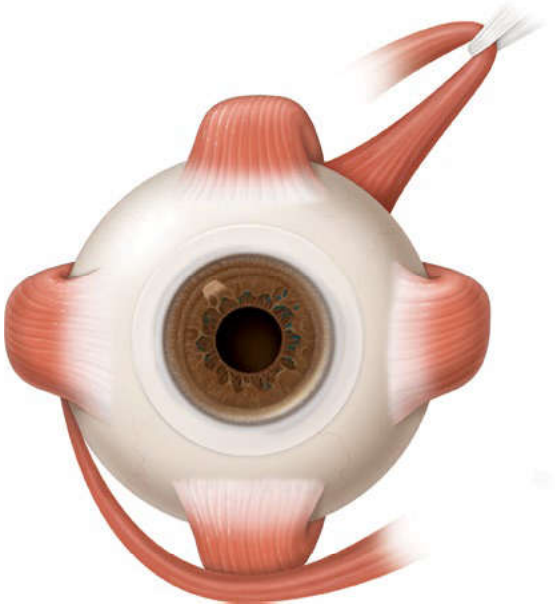
Your brain sends signals to your eye muscles through 3 nerves. If blood flow to one of these nerves is reduced, certain muscles cannot move the eye.

Doctors do not know for sure why the tiny blood vessels that go to your cranial nerves get blocked. MCNP is very common in older adults. It is more likely to happen to those who have diabetes and high blood pressure.

MCNP almost always gets better on its own in about 6–12 weeks, and your vision returns to normal.

What are MCNP symptoms?

The most common MCNP symptoms are problems moving your eyes, blurry vision and double vision. You may find that it takes longer than usual to move your eyes. Or you may not be able to move your eyes at all in one or more directions.



Six muscles control eye movement

In some cases, you may have vertical double vision. This is where you see two of the same image, one above the other. Tilting your head toward one of your shoulders may reduce or get rid of this double vision. You may also have both up and down (vertical) and side by side double vision.

You may have a droopy eyelid. You could also have pain in, or around, your eye. This may happen just before you notice double vision. Rarely, your pupil (the black dot in the center of your eye) gets larger.

How is MCNP diagnosed?

Your ophthalmologist will do a complete medical eye exam. He or she will want to learn more about the type of double vision you are having. That can help show which nerves are affected.

Sometimes, you will have tests to provide detailed images of your eye, such as a CT scan, MRI, or angiogram.

Your ophthalmologist may also refer you to a neurologist.

MCNP and stroke

Risk factors for MCNP include high blood pressure, diabetes and smoking. These same risk factors increase your chances for having a stroke. Work closely with your doctor to reduce or treat these risk factors.

How is MCNP treated?

MCNP goes away on its own. There is no way to shorten the amount of time it takes to recover from it. In the meantime, there are ways to help cope with your double vision. For instance, you can wear a patch on one of your eyes. This often helps reduce the symptoms of double vision. You can also try wearing prism glasses. Your ophthalmologist can explain how they help with double vision, and prescribe them for you.

If you have pain from MCNP, you might take an anti-inflammatory medicine such as ibuprofen (Advil® or Motrin®).

It is also important to make sure that your blood pressure and blood sugar levels are well controlled.

If your eye muscles do not recover fully on their own, your ophthalmologist may suggest you have eye muscle surgery.

It is very important to tell your doctor if your double vision does not go away or if you get new double vision symptoms.

Summary

Microvascular Cranial Nerve Palsy (MCNP) is when there is a blockage in blood flow to nerves in your head. As a result, muscles that move your eyes do not work properly. You have trouble moving your eyes a certain way, and you have double vision. Sometimes you have blurry vision or a droopy eyelid. MCNP is more likely to happen to people with high blood pressure and diabetes.

MCNP usually goes away on its own in about 6–12 weeks. Patching one of your eyes or wearing prism glasses can help with double vision while you recover. Sometimes, if the eye muscles do not recover completely on their own, muscle surgery is recommended.

To prevent MCNP, you need to control high blood pressure and blood sugar levels, and quit smoking.

Get more information about microvascular cranial nerve palsy from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/mcnp-link**.

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Content last reviewed 09/18

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Content last reviewed 09/18