

West Nile Fever

Causes and complaints

What are the causes of West Nile fever?

West Nile fever (West Nile virus disease, West Nile encephalitis, WNV infection) is a virus disease caused by a Flavivirus. It can be transmitted to humans by mosquitoes (especially of the Culex genus). The virus enters the human body in the mosquito's saliva during the bite. The infection usually remains free of symptoms. It may lead to dangerous complications, though.

The West Nile fever is mainly spread by birds. But mammals like horses, dogs or cats can be infected with the West Nile virus (WNV), as well. A transmission of the causative agent from mother to unborn child during pregnancy is possible. Humans cannot infect each other by direct contact.

West Nile fever is rare in Central European countries. It occurs predominantly in Africa, Israel, the Middle East, India, some parts of South-East Asia and North America. During the 2002 WNV epidemic in the USA the virus was also transmitted by organ transplants, blood transfusions and laboratory workings.

How does West Nile fever manifest itself?

The incubation time of West Nile fever is three to twelve days. Only one in five people carrying the virus show symptoms. Some do not notice the disease at all. Similar to a common cold the following complaints occur:

- Fever
- Shivering
- Headache
- Joint pains
- Lassitude
- Backache
- Swollen lymph nodes
- Muscle soreness

Ten percent of West Nile fever patients suffer from a pale and blotchy skin rash (exanthema) with blisters (papules). The course of disease depends largely on the person's age. Particularly elderly people and people with a weak immune system may experience a more severe form of the disease. This can result in an inflammation of the brain (encephalitis) or its' protective membranes (meningitis), leading to neurological symptoms like:

- Impaired coordination
- Drowsiness
- Weakness
- Difficulty in swallowing
- Dizziness
- Sweating
- Irritability
- Confusion and disorientation

Diagnosis and treatment

How is West Nile fever diagnosed?

West Nile fever is very similar to a common cold. The doctor can identify the specific West Nile virus with a blood analysis. The causative agent is detectable from the beginning of the West Nile disease. Further examinations (a liquor analysis, for example) may become necessary in case of neurological symptoms.

How is West Nile fever treated?

Usually, West Nile fever will disappear without medical treatment within three to six days. In most cases therapy is not required. It consists of merely supportive measures if necessary, after all. I.e. Therapeutic measures are limited to alleviating the symptoms. There is no specific drug therapy against the West Nile virus. Infections of the brain its' membranes require adequate treatment.

Prognosis and prevention

How is the prognosis of West Nile fever?

The prognosis of West Nile fever is good as this infectious disease usually heals without complications. If the virus affects the brain, however, half the patients suffer from long-term consequences. For elderly people in particular West Nile fever can be lethal in this case.

How to prevent West Nile fever?

West Nile fever is prevented by avoiding mosquito bites in regions of high risk. This means wearing clothing covering the whole body, mosquito nets and mosquito repellents. In some regions pesticides have been used on a large scale. There is no vaccination against West Nile fever at this point.

More information about West Nile fever

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