

# US doctors flag neurological risk in child virus cases

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US doctors on Thursday reported 12 cases of muscle weakness or paralysis among children in Colorado that may be linked to a nationwide outbreak of an usually rare respiratory virus.

Called EV-D68, the virus is a so-called non-polio enterovirus. Some viruses in this group have been found—in a small number of people—to cause meningitis, encephalitis or paralysis, as well as infection of the [heart muscle](#) or the sac surrounding it.

EV-D68 caused localised outbreaks of respiratory illness in Asia, Europe and the United States from 2008 to 2010.

It returned last August in a US-wide outbreak, which as of January 15 had caused 1,153 mild to severe respiratory illness cases, according to the latest figures on the US Centers for Disease Control and Prevention (CDC) website.

Reporting online in UK medical journal The Lancet, physicians at the Children's Hospital Colorado examined 12 cases of sick youngsters who had been admitted over a three-month period.

Roughly a week after falling ill with a fever and breathing difficulties, the 12 had varying degrees of [muscle weakness](#) in the arms and legs as well as [facial paralysis](#) or problems swallowing.

Eight of the 12 tested positive for enteroviruses or rhinoviruses, of

which five were identified as EV-D68. Scans showed that 10 children had spinal cord lesions and brainstem lesions were seen in nine.

Despite treatment, all 10 with [limb weakness](#) still have problems.

"Over the past four years, our hospital has seen a maximum of four similar cases in any three-month period where [children](#) lose the use of one or both arms or legs. These 12 cases are three times that," said Samuel Dominguez, a microbial epidemiologist.

"The extent to which this new distinctive neurological disease has spread is unknown, but it does not appear to be isolated to Colorado or the USA," Dominguez said in a statement distributed by *The Lancet*.

"Since the reporting of this cluster, 107 similar cases have been reported across the USA and one in France."

Further work is needed to explore the apparent association between the virus and nerve dysfunction.

If the link is confirmed, Dominguez said, EV-D68 "will be added to the list of non-poliovirus enteroviruses capable of causing severe, potentially irreversible neurologic damage, and finding effective antiviral therapies and vaccines will be a priority."

EV-D68 is found in faeces, saliva and nasal mucus, according to the CDC.

Exposure comes from close contact with an infected person, through sneezes, coughing and shaking hands with them or touching surfaces that have the virus on it. There is currently no vaccine or targeted treatment.

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