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Detection of circulating Vaccine Derived Polio Virus 2 in London sewage samples

A reminder of the importance of being up to date with the UK vaccination schedule

Between February and August 2022, genetically related vaccine like type 2 polio virus (PV2) has been detected in London sewage samples [1]. As part of routine surveillance, it is normal for 1 to 3 'vaccine-like' polioviruses to be detected each year in UK sewage samples but these have always been one-off findings that were not detected again [2]. In this instance, however, the virus has persisted and during this period has evolved and now meets the classification of a 'vaccine-derived' poliovirus type 2 (VDPV2) [1]. This is a concern as VDPV2 can cause serious illness, such as paralysis, in people who are not fully vaccinated [3].

In addition, as genetically linked VDPV2 samples have persisted for more than 60 days, the virus now meets the classification of 'circulating' vaccine derived poliovirus type 2 (cVDPV2) [1].

Evidence suggests that there is some level of virus transmission in Northeast and North Central London. As of 5 September 2022, the poliovirus has only been detected in sewage samples and no paralytic cases associated with VDPV2 have been identified in the UK (the last UK acquired case of polio was confirmed in 1984). [1]

The overall risk to the population in the UK is low due to the high levels of vaccine coverage. However, vaccine coverage for childhood vaccines has decreased nationally and especially in parts of London over the past few years, so UK Health Security Agency (UKHSA) is urging people to check they are up to date with their vaccines.

In addition, the Joint Committee on Vaccination and Immunisation (JCVI) [has now advised](#) that a targeted inactivated polio vaccine (IPV) booster dose should be offered to all children between the ages of 1 and 9 in all London boroughs [4]. This will ensure a high level of protection from paralysis and help reduce further spread of the virus.

Advice for travellers

You can become infected with the [polio](#) virus through contact with the infected human faeces and/or respiratory secretions of an infected person. The virus can also be found in food or water contaminated with infected faeces. You should practise strict [food, water and personal hygiene](#).

Wherever you are travelling to, you should make sure you have completed a primary vaccination course for polio according to the [UK schedule](#). No additional doses of polio vaccine are required for travellers from the UK, however, you should follow the recommendations for the country you are visiting; [please check on TravelHealthPro Country Information pages](#).

The inactivated polio vaccine (IPV) used in the UK provides protection against types 1, 2 and 3 polioviruses. The bivalent oral polio vaccine (bOPV) used in some other countries, does not protect against type 2 poliovirus. You should check with your doctor or nurse that you are protected against all types of polioviruses.

You are encouraged to carry documentary evidence of your polio vaccinations. An International Certificate of Vaccination or Prophylaxis is required by some countries [5]. See our [Country Information](#) pages for country-specific information.

Advice for health professionals

All travellers regardless of destination should be up to date with the routine vaccination schedule [recommended in the UK](#); for some countries a booster dose of polio vaccine is recommended where the primary course was completed 10 or more years ago. On the basis of recent events, additional doses of polio vaccine are not advised for those leaving the UK.

See our [Country Information](#) pages for country-specific recommendations and certificate requirements.

For specific outbreak information, check our [Outbreak Surveillance](#). The polio status of countries is reviewed by WHO on a regular basis and polio vaccination recommendations are subject to change.

Resources

- [Global Polio Eradication Initiative](#)
- [Global Polio Eradication Initiative. Vaccine-derived Polioviruses](#)
- [Global Polio Eradication Initiative. Where We Work](#)
- [Poliomyelitis factsheet](#)
- [UK Health Security Agency: Polio - guidance, data and analysis](#)
- [World Health Organization: Polio](#)

References

1. [World Health Organization. Disease Outbreak News. Detection of circulating vaccine derived polio virus 2 \(cVDPV\) in environmental samples in the United Kingdom of Great Britain and Northern Ireland and the United States of America 14 September 2022 \[Accessed 15 September 2022\]](#)
2. [UKHSA. Immediate actions in response to detection of vaccine derived polio virus type 2 \(VDPV\) in London sewage samples. 22 June 2022 \[Accessed 15 September 2022\]](#)
3. [Global Polio Eradication Initiative. Vaccine-Derived Polioviruses \[Accessed 15 September 2022\]](#)
4. [Department of Health and Social Care. Joint Committee of Vaccination and Immunisation \(JCVI\). Vaccination strategy for ongoing polio incident: JCVI statement.10 August 2022 \[Accessed 15 September 2022\]](#)
5. [International travel and health. Country list. May 2021 Accessed 15 September 2022\]](#)