Vaccine-preventable types of encephalitis: FAQ

Why are you campaigning about vaccine-preventable types of encephalitis now? **Sources:** [1]https://www.who.int/campaigns/world-immunization-week/2024	Our campaign coincides with the World Immunization Week, campaign organised by World Health Organization (WHO) aiming to increase investments in immunization programs for the benefit of saving lives and celebrate one of the greatest achievements of medicine-vaccinations. Worldwide there is a decline in the take-up of immunisation[1]. Covid-19 has caused issues around accessing vaccination, distribution and roll out programmes. This is on top of wider socioeconomic issues like war and poverty that have begun before COVID-19 and worldwide vaccine hesitancy. In 2022, 20 million of children have missed out on one or more of their vaccines[1]. Illnesses such as measles, which were once controlled by vaccination, are causing outbreaks is many areas of the world. Encephalitis International's vision is a world without death and disability. We aim to provide reliable information to ensure people understand how severe the complications of encephalitis are and how to protect themselves, their families and others around them against the vaccine-preventable types of encephalitis.
What are the types of vaccine-preventable encephalitis, and how do you get it? **Sources:** [2]https://www.nfid.org/infectious-disease/measles/ Date accessed 16/04/2024	Encephalitis is an inflammation of the brain caused by infections or an inappropriate autoimmune reaction. Some of these infections such as measles, mumps, rubella, influenza (flu), varicella-zoster (chicken pox), Japanese encephalitis, and tick-borne encephalitis are vaccine-preventable. These infections can be transmitted from human-to-human and are highly contagious (e.g., one infected person can transmit measles to nine other non-immune/not vaccinated people[2]) or can be transmitted from a bite of a mosquito or a tick. Not everyone with these infections will develop encephalitis, but a proportion of people will

	develop it. Some individuals (e.g. babies, elderly, people with compromised immune system) may be at risk of acquiring these infections and thus have an increased risk of encephalitis.
Are there complications from encephalitis?	There are serious complications that can occur from encephalitis such as death or long-term disability of various degrees. Due to the severity of the illness and its consequences, encephalitis doesn't affect only an individual but their family too.
How do you get encephalitis from these infections?	Encephalitis can occur either during or after an infection with these viruses. This can happen as a result of the brain becoming infected with the virus during the acute phase of the illness or by an immune-mediated brain inflammation subsequent to initial infection.
How can I protect myself against these infections? **Sources:** [3]https://vaccineknowledge.ox.ac.uk/chickenpox-varicella-vaccine#Key-vaccine-facts page accessed 16/04/2024	The good news is that some of the infections that can cause encephalitis can be prevented by immunisations (vaccinations). Some vaccinations are included in the mandatory/recommended vaccination programmes in different countries (e.g. measles, influenza worldwide, or Japanese encephalitis/tick-borne encephalitis in endemic countries); others in the recommended guidelines for travellers to endemic countries (e.g. Japanese encephalitis/tick-borne encephalitis for those who travel to endemic countries). Vaccination against varicella zoster is available as part of the routine immunisation programmes in some countries (e.g. USA, Germany). In other countries it is only available privately. In the UK, varicella -zoster vaccination is not included in the childhood routine vaccination programmes. However, the Joint Committee on Vaccination and Immunisation (JCVI), who make recommendations to the UK Government on vaccine policy, recently recommended that this vaccine should now be included. Therefore, the chickenpox vaccine could become a part of the UK routine childhood schedule in the future[3].

Can only children get vaccinated, or can adults too if they haven't had the vaccination as a child?	Adults can be vaccinated if they haven't been fully vaccinated before. If you are not sure about your vaccination status, it is safe to check with your GP/family doctor.
Can I have vaccination after I had encephalitis?	There is no straightforward answer, it may depend on when you had encephalitis and what medication you may be on. It is therefore best to speak to your doctor about your suitability and they will advise you if it is safe for you to have vaccination.
What is heard immunity and why it is important?	Heard immunity is when enough people in a community have immunity to an illness which can come from the disease itself (they had the illness) or vaccination. Immunity means that our body recognises the infection, so it can quickly act against it. It is important for a community to have this immunity, so it can protect those who are at risk of having serious consequences from that disease (e.g., babies, older people, those who have compromised immune system due to cancer or autoimmune conditions) and/or cannot be vaccinated.
Why is it important to get informed and vaccinated, if required, when travelling? **Source:** [4]Lindquist L, et al. Tick-borne encephalitis. The Lancet. 2008;371(9627):1861-71.doi:10.1016/s0140-6736(08)60800-4.	Some of the vaccine-preventable encephalitis types mentioned above are endemic in different parts of the world. It is important to check with a doctor and/or travel clinic about vaccination requirements and the risk of the illness (for example, TBE virus can be transmitted to humans from a single tick bite[4]), but also about the consequences of acquiring the infection and possible encephalitis.
Although the vaccines are included in the childhood vaccination programmes, I don't want my child to get vaccinated. **Source:** [5]https://ourworldindata.org/childhood-vaccination-policies [6]www.cdc.gov/measles/about/parents-top4.html	Worldwide, depending on the country, the vaccination can be mandatory, mandatory just for school entry or recommended.[5] In countries where the vaccination is not mandatory, it is important to be aware the deadly consequences a particular infection can have for your child/ other children if your child is not vaccinated. For example, Centres for Disease (CDC)state that a child can get measles just by being in a room where a person with measles has been, even two

	hours after the infected person had left. You can get measles in any country you are in, due to risk of getting infected while travelling.[6]
A**re there any contraindications to vaccines?**	Yes, there can be contraindications to vaccines (e.g, people who had reactions to vaccine components in the past, pregnancy, people with a suppressed immune system). The doctor/travel clinic can advise and discuss this with you.
I have heard vaccination can have risks and side effects so what should I do?	All vaccines go through vast testing and rigorous processes to ensure safety and efficacy. However, as with any other drugs, vaccination can have side-effects. Most side effects are mild, manageable and do not last long. The most common mild side-effects are local to where the vaccine was given (sore and red area), feeling unwell, rash, crying (babies) and fever. There can be very rare side effects, like allergic reactions or encephalitis. However, if a doctor has recommended the vaccine to your child or to you, the risks for not having the vaccination outweigh the risks of having the vaccination, due to the risks of severe complications from infections if you're not vaccinated.
I have heard some of the vaccines such as the measles, mumps, rubella (MMR) vaccine can cause autism	There is no evidence of any link between the MMR vaccine and autism, fact confirmed by many studies that have investigated this. If you wish to view these studies, you can find them here: http://vk.ovg.ox.ac.uk/vk/mmr-vaccine There is a wide range of credible information available on the good safety record of the MMR vaccine at: www.gov.uk/government/publications/measles-the-green-book-chapter-21 It can be difficult to find reliable information with social media and various news outlets. The best way to be informed is to find credible sources of information, such as the CDC, WHO, National Foundation for Infectious Diseases (NFID) or speaking to a health professional who will be able to provide you with good, reliable information.

	It may be useful to look at how the misconceptions on the measles vaccination developed into the 90's and are still having an effect today. European Centre for Disease Prevention and Control wrote an article that addresses these concerns below: www.ecdc.europa.eu/en/measles/prevention-and-control/addressing-misconceptions-measles

Other sources of reliable information

NHS vaccinations and when to have them - NHS (www.nhs.uk)

Immunisation - GOV.UK (www.gov.uk)

Vaccines and immunization (who.int)

Vaccines and Immunizations | CDC

Immunisation and vaccines (europa.eu)