



Seasonal flu & COVID19 vaccine

Professor Michael Lunn MA MBBS FRCP PhD, Consultant Neurologist and Professor of Clinical Neurology, National Hospital for Neurology and Neurosurgery, Queen Square, London advises: “One vaccine is not the same as another. The only reason that one advises against flu vaccine in someone with GBS is if they actually had GBS in the 6 week window after a flu vaccine and then only out of an abundance of caution which is not based on any real science. The rate of GBS after flu vaccine in all assessed years after 1976 has been about 1 per million and no study has linked vaccination to recurrence of GBS or CIDP. COVID vaccine is nothing like flu vaccine. Although there have been a small number of people who have developed GBS for the first time following the COVID vaccine, the risk of serious illness and complications from COVID are greater.”

Most vaccinations do not cause GBS.

The influenza (‘flu’) vaccine changes every year. In some years this has caused a few cases of GBS, most notably in 1976. The risk remains extremely small. For every one million people who receive an influenza vaccine, only about one case of GBS is caused. In most years, influenza vaccine does not cause GBS at all.

Although some neurologists advise people to avoid vaccinations for 6-12 months after onset of GBS, this is purely precautionary. Several scientific studies have shown very little or no causal link between vaccinations and GBS, concluding that vaccinations do not trigger a recurrence and are as safe for people who have had GBS as for anyone else.

GBS is a one-off condition that is unlikely to happen again. After recovering from GBS, the risk of ever developing GBS again (many years later) is about 1 in 30 (2 – 5%).

The risk of triggering GBS from the annual seasonal flu vaccine is far lower than the risk from flu infection.

Most people don’t need a flu jab. However, if you are in an at-risk group, or you live or work closely with people for whom flu might be severe or life-threatening, then you should be vaccinated, to protect yourself and others.

Public Health England states in [The national influenza immunisation programme 2020 to 2021](#) that

‘Previous GBS is not a contraindication to influenza vaccination. A UK study found no association between GBS and influenza vaccines although there was a strong association between GBS and influenza-like illness. A causal relationship between immunisation with influenza vaccine and GBS has not been established.’

This is further supported by the Medicines & Healthcare products Regulatory Agency (MHRA) which states:

‘The balance of epidemiological evidence is not sufficient to confirm that currently used influenza vaccines are causally associated with the development of GBS. As GBS also occurs naturally in the vaccinated population, and particularly because flu-like illness is a known risk factor for GBS, a number of cases are reported each year in temporal association with vaccination. This does not mean the vaccine was the cause.’

Recent data supports the findings made in previous studies that an influenza vaccination may trigger GBS in fewer than 1 in 1,000,000 people vaccinated. There were approximately 14,000,000 people vaccinated in the UK during 2019/20 and there were 11 reports submitted through the yellow card scheme for the same period.

These may be true side-effects, or they may be due to concurrent diagnosed or undiagnosed illness, other medicines or they may be purely co-incidental events that would have occurred anyway in the absence of therapy. Based on current evidence, the MHRA findings are that these reports do not indicate a causal relationship between influenza vaccine and GBS.'

GAIN adds that this is supported by independent research showing colds and flu-like illnesses are triggers for GBS. The seasonal flu vaccination is a very low risk trigger, with approximately 1 case of GBS triggered per 1,000,000 vaccinations compared with 1 case of GBS per 60,000 cases of flu¹.

A large retrospective study² entitled *Vaccines and the risk of Guillain-Barré syndrome* was published in 2020. In comparing 1,056 cases of GBS with 4,312 controls, Chen et al found no increased risk of GBS or its recurrence among either children or adults within 180 days following vaccinations of any kind, including influenza vaccination. Therefore, previous case reports of GBS shortly after receiving several other vaccines were probably merely coincidental.

On vaccinations in general, our Medical Advisory Board advises:

- DON'T have unnecessary vaccines for travel but DO have all travel vaccines that are recommended for the particular area you are travelling to.
- DO have all vaccines that are 'necessary'. This includes the flu vaccine (if you are in an at risk group), MMR, DTP, pneumovax, HIF, COVID-19, etc. **There are monitoring programmes ongoing so a link would be picked up if it occurred.**
- COVID-19 is a more serious disease than influenza and more easily caught. Most people with GBS or CIDP should receive any of the COVID-19 vaccines, except perhaps people with a history of severe allergy requiring an EpiPen.

Vaccines currently in use are amongst the safest medicines available. However, there is no simple 'yes or no' answer, and each person must weigh up the risks of not having a vaccination against the very small possible risk from having it.

Having relatively mild side effects such as numbness and tingling is quite common following a vaccination, and is almost certainly nothing to be concerned about. If you have had GBS in the past, or if you have an associated chronic neuropathy such as CIDP, a vaccination might cause a slight 'flare-up' of symptoms due to your immune system being stimulated. Most will only last a few days, but if they last longer than this, or if symptoms get worse or start spreading, then I would suggest contacting your GP. Anyone can report side effects of medication or vaccines, regardless of severity, and if you would like to do so, please follow this link; <https://coronavirus-yellowcard.mhra.gov.uk/>

¹Jeffrey C. Kwong, Priya P. Vasa, Michael A. Campitelli, Steven Hawken, Kumanan Wilson, Laura C. Rosella, Therese A. Stukel, Natasha S. Crowcroft, Allison J. McGeer, Lorne Zinman and Shelley L. Deeks *The risk of Guillain-Barré Syndrome following seasonal influenza vaccination and influenza healthcare encounters, a self-controlled study. The Lancet Infectious Diseases, Vol. 13, No. 9, p730–731 Published: June 28, 2013*

²Chen, Y., Zhang, J., Chu, X. et al. *Vaccines and the risk of Guillain-Barré syndrome. Eur J Epidemiol* **35**, 363–370 (2020).