

### **Global COVID-19 advice for people with MS**

COVID-19 is a new illness that can affect your lungs, airways and other organs. It is caused by a novel coronavirus (called SARS-CoV-2) that has spread around the world.

The advice below was developed by MS clinicians\* and research experts. It is based on the emerging evidence of how COVID-19 affects people with multiple sclerosis (MS) and expert opinion. This advice will be reviewed and updated as further evidence about COVID-19 and SARS-CoV-2 becomes available.

For information about COVID-19 mRNA (Pfizer-BioNTech and Moderna) vaccines and MS, please see page 4.

### **Advice for people with MS**

Current evidence shows that simply having MS does not make you more likely to develop COVID-19 or to become severely ill or die from the infection than the general population. However, the following groups of people with MS are more susceptible to having a severe case of COVID-19:

- People with progressive MS
- People with MS over the age of 60
- Men with MS
- Black people with MS and possibly South Asian people with MS
- People with higher levels of disability (for example, [an EDSS score](#) of 6 or above, which relates to needing to use a walking stick)
- People with MS and obesity, diabetes or diseases of the heart or lungs
- People taking certain disease modifying therapies for their MS (see below)

All people with MS are advised to follow [World Health Organization](#) guidelines for reducing the risk of infection with COVID-19. People in the higher risk groups should pay particular attention to these measures. We recommend to:

- Practise social distancing by keeping at least 1.5 metres\*\*\* distance between yourself and others, to reduce your risk of infection when they cough, sneeze or speak. This is particularly important when indoors but applies to being outdoors as well.
- Make wearing a mask a normal part of being around other people and ensure that you are using it correctly by following [these instructions](#).
- Avoid going to crowded places, especially indoors. Where this is not possible, ensure to wear a mask and practise social distancing.
- Wash your hands frequently with soap and water or an alcohol-based hand rub (70% alcohol content is considered most effective).
- Avoid touching your eyes, nose and mouth unless your hands are clean.
- When coughing and sneezing, cover your mouth and nose with a flexed elbow or tissue.
- Clean and disinfect surfaces frequently especially those which are regularly touched.
- Talk to your healthcare provider about optimal care plans, through video consultations or in-person visits where needed. Visits to health clinics/centres and hospitals should not be avoided if they are recommended based on your current health needs.

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- Stay active and try to take part in activities that will enhance your mental health and well-being. Physical exercise and social activities that can take place outside and with social distancing are encouraged.
  - Get the seasonal flu vaccination where it is available and encourage your family to do the same.

Caregivers and family members who live with, or regularly visit, a person with MS in one of the higher risk groups should also follow these recommendations to reduce the chance of bringing COVID-19 infection into the home.

### **Advice regarding disease modifying therapies for MS**

Many disease modifying therapies (DMTs) for MS work by suppressing or modifying the immune system. Some MS medications might increase the likelihood of developing complications from COVID-19 but this risk needs to be balanced with the risks of stopping or delaying treatment.

We recommend that people with MS currently taking DMTs continue with their treatment, unless advised to stop by their treating clinician.

People who develop symptoms of COVID-19 or test positive for the infection should discuss their MS therapies with their MS care provider or another healthcare professional who is familiar with their care.

Before starting on any new DMT or changing an existing DMT, people with MS should discuss with their healthcare professional which therapy is the best choice for their individual circumstances. This decision should consider the following information:

- MS disease course and activity
- The risks and benefits normally associated with different treatment options
- Additional risks related to COVID-19, such as:
  - The presence of other factors for a more severe case of COVID-19, such as older age, obesity, pre-existing lung or cardiovascular disease, progressive MS, higher risk race/ethnicity etc, as listed above
  - The current and anticipated future COVID-19 risk in the local area
  - Risk of exposure to COVID-19 due to lifestyle, for example whether they are able to self-isolate or are working in a high-risk environment
  - Emerging evidence on the potential interaction between some treatments and COVID-19 severity
  - Previous infection with COVID-19
  - Availability of and access to a COVID-19 vaccine

### **Evidence on the impact of DMTs on COVID-19 severity**

Interferons and glatiramer acetate are unlikely to impact negatively on COVID-19 severity. There is some preliminary evidence that interferons may reduce the need for hospitalisation due to COVID-19.

The evidence available suggests that people with MS taking dimethyl fumarate, teriflunomide, fingolimod, siponimod and natalizumab do not have an increased risk of more severe COVID-19 symptoms. It is unlikely that people with MS taking ozanimod will have an increased risk either, as it is assumed to be similar to siponimod and fingolimod.

There is some evidence that therapies that target CD20 – ocrelizumab and rituximab – may be linked to an increased chance of having a more severe form of COVID-19. However, these therapies should still be considered as an option for treating MS during the pandemic. People with MS who are taking them (or ofatumumab and ublituximab that work in the same way) should be particularly vigilant regarding the advice above to reduce their risk of infection.

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More data on the use of alemtuzumab and cladribine during the COVID-19 pandemic are required to make any assessment of their safety. People with MS who are currently taking these therapies and are living in a community with a COVID-19 outbreak should discuss their current lymphocyte counts with their healthcare professional. (Lymphocytes are a type of white blood cell that helps protect the body from infection). If their counts are considered to be low they should isolate as much as possible to reduce their risk.

Recommendations on delaying second or further doses of alemtuzumab, cladribine, ocrelizumab and rituximab due to the COVID-19 outbreak differ between countries. People who take these medications and are due for the next dose should consult their healthcare professional about the risks and benefits of postponing treatment. People are strongly encouraged not to stop treatment without the advice of their clinician.

### **Advice regarding aHSCT**

Autologous Haematopoietic Stem Cell Transplantation (aHSCT) includes intensive chemotherapy treatment. This severely weakens the immune system for a period of time. People who have recently undergone aHSCT should consider extending the period they remain in isolation during the COVID-19 outbreak to at least six months. People who are due to undergo treatment should consider postponing the procedure in consultation with their healthcare professional. If aHSCT is given, chemotherapy should be administered in rooms isolated from other hospital patients.

### **Seeking medical advice for relapses and other health concerns**

People with MS should still seek medical advice if they experience changes in their health that may suggest a relapse or another underlying issue such as an infection. This can be done using alternatives to in-person clinic visits (such as telephone or video consultations) if the option is available. In many cases, it is possible to manage relapses at home.

The use of steroids for treating relapses should be carefully considered and only used for relapses that need intervention. There is some evidence that receiving high-dose steroids in the month prior to contracting COVID-19 increases the risk of a more severe infection requiring a visit to hospital. Where possible, the decision should be made with a neurologist experienced in the treatment of MS. People who receive steroid treatment for a relapse should be extra vigilant and may want to consider self-isolation for at least a month to reduce their risk from COVID-19. Note that once someone has been infected with COVID-19, steroids may be used to treat COVID-19, to dampen the excessive immune response often referred to as a 'cytokine storm'.

People with MS should continue to participate in rehabilitation activities and stay active as much as possible during the pandemic. This can be done through remote sessions where available or in clinics/centres as long as people with MS attending the clinics/centres follow safety precautions to protect themselves and limit the spread of COVID-19. People with concerns about their mental health should seek advice from their healthcare professional.

### **Flu vaccine**

The flu vaccine is safe and recommended for people with MS. For countries entering flu season, we recommend people with MS receive the seasonal flu vaccine where it is available.

### **Advice for children or pregnant women with MS**

At this time there is no specific advice for women with MS who are pregnant. There is general information on COVID-19 and pregnancy from the [World Health Organization](#). There is no specific advice for children with MS; they should follow the advice above for people with MS.

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## **COVID-19 mRNA vaccines (Pfizer-BioNTech and Moderna) and MS**

Our guidance currently relates to the mRNA vaccines (Pfizer-BioNTech and Moderna) only, as these have been through an assessment by our clinical and scientific experts. We know that other COVID-19 vaccines are in use in different countries, and our aim is to update our advice to cover these vaccines as soon as possible.

The mRNA vaccines work by using part of the coronavirus' genetic code to prompt a response from the human immune system, which in turn will generate a human response to produce antibodies and T-cells cells (a special population of white blood cells) to fight the virus. All data regarding these mRNA COVID-19 vaccines come from clinical trials, which were carefully and thoroughly reviewed and then approved by regulatory authorities.

We do not know how many people in the mRNA vaccine clinical trials had MS, so data on the safety and effectiveness of mRNA COVID-19 vaccines specifically for people with MS are not yet available. Our guidance is therefore based on data from the general population in the vaccine clinical trials, and guided by prior experience regarding vaccination of people with MS. We will update our guidance as more data emerges.

### **People with MS should get a COVID-19 vaccine**

The science has shown us that the COVID-19 mRNA vaccines (Pfizer-BioNTech and Moderna) are safe and effective. Like other medical decisions, the decision to get a vaccine is best made in partnership with your healthcare professional. You should get the mRNA vaccine (Pfizer-BioNTech or Moderna) if and as soon as it becomes available to you. The risks of COVID-19 disease outweigh any potential risks from the vaccine. In addition, members of the same household and close contacts should also get an mRNA vaccine (Pfizer-BioNTech or Moderna) when available to decrease the impact of the virus.

The Pfizer-BioNTech and Moderna COVID-19 vaccines require two doses. You need to get both doses for it to be fully effective. You should follow local, regional and national guidelines on the timing of the second dose. If you have had COVID-19 and recovered, you should also get the vaccine since it does not appear that prior infection protects from future COVID-19 infection indefinitely. Note that following full vaccination (both doses), it may take up to three weeks to reach maximal immunity.

We do not know how long a vaccinated person is protected from COVID-19, although clinical trial data indicates that protection is very high (ie; vaccinated persons have a very low, less than 5% risk, of having COVID-19 symptoms if exposed to the virus) for at least multiple months. Repeated doses of the COVID-19 vaccines may be required in future years.

### **In countries where the mRNA vaccines (Pfizer-BioNTech and Moderna) are available, people at highest risk of severe COVID-19 should get vaccinated as soon as one of these vaccines is offered to them**

People with progressive MS, those who are older, those who have a higher level of physical disability (e.g. limited walking distance), those with certain medical conditions (e.g. diabetes, high blood pressure, obesity, heart and lung disease), and Black people with MS and possibly South Asian people with MS, are among groups with the highest risk of hospitalisation due to COVID-19.

### **The mRNA vaccines (Pfizer-BioNTech and Moderna) are safe for people with MS**

The mRNA vaccines (Pfizer-BioNTech and Moderna) do not contain live virus and will not cause COVID-19 disease. The mRNA vaccines (Pfizer-BioNTech and Moderna) are not likely to trigger an MS relapse or to worsen your chronic MS symptoms. The risk of getting COVID-19 far outweighs any risk of having an MS relapse from the vaccine.

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The mRNA vaccines (Pfizer-BioNTech and Moderna) can cause side effects, including a fever or fatigue. A fever can make your MS symptoms worse temporarily, but they should return to previous levels after the fever is gone. Even if you have side effects from the first dose, it is important to get the second dose of the vaccine for it to be fully effective.

### **The COVID-19 mRNA vaccines (Pfizer-BioNTech and Moderna) are safe to use with MS medications**

Continue your disease modifying therapy (DMT) unless you are advised by your MS healthcare professional to stop or delay it. Stopping some DMTs abruptly can cause severe worsening of the disease. Based on data from previous studies of other vaccines and DMTs, getting the mRNA vaccines (Pfizer-BioNTech or Moderna) while on any DMT is safe. Some DMTs may make the vaccine less effective but it will still provide some protection. For those taking ofatumumab, alemtuzumab, cladribine, ocrelizumab, or rituximab - you may need to coordinate the timing of your vaccine with the timing of your DMT dose. Work with your MS healthcare professional to determine the best schedule for you.

### **All of us have a personal responsibility to slow the spread of the pandemic and eliminate the virus as quickly as possible**

The authorisations of safe and effective vaccines for COVID-19 bring us one step closer to eliminating this pandemic. In areas where there is ongoing local transmission of COVID-19, in addition to getting vaccinated, you should refer to your local guidelines about transmission mitigation strategies, which are likely to include wearing a face mask, social distancing and washing your hands.

*This statement was first agreed on 13 March 2020. The latest revisions were agreed and published on 13 January 2021.*

The individuals listed below were consulted in the development of this advice. The guidance relating to the COVID-19 vaccines was developed in conjunction with the [National MS Society working group](#).

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\*\*\* National and international guidelines on physical distancing vary between at least 1 metre and 2 metres. People should consider their national guidance and be aware that these are minimum distances, longer being better.