March 2022

Global COVID-19 advice for people with MS

COVID-19 is a contagious illness that can affect your lungs, airways and other parts of your body. It is caused by a type of 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 continually emerging evidence of how COVID-19 affects people with multiple sclerosis (MS) as well as expert opinion. This advice will be reviewed and updated as further evidence about COVID-19 and SARS-CoV-2 becomes available.

Key messages

- All people with MS should get vaccinated against COVID-19, even if you had COVID-19.
- The COVID-19 vaccines are safe for people with MS, including those who are pregnant, and young people.
- People with MS should be vaccinated as soon as the vaccine is available to them.
- Talk to your healthcare provider about timing the COVID-19 vaccine with your DMT (if relevant).
- Even once you have received the vaccine, it is important to follow your country's guidelines regarding mask wearing (indoors and outdoors), social distancing, social group requirements, and hand washing.
- If you test positive for COVID-19, call your healthcare provider as quickly as possible to discuss your treatment options.
- COVID-19 vaccines have proven to be the best defence available against the COVID-19 complications of the SARS-CoV-2 virus, including all its variants.

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COVID-19 vaccines and MS

In this section, we will review the current vaccine types and discuss vaccination timing and disease modifying therapy (DMT) administration. Given the seriousness of COVID-19 – which carries a 1-3% mortality risk as well as risk for serious illness and prolonged ill-health for many – we wish to emphasise these key points:

- **All people with MS should be vaccinated against COVID-19[1] even if you already had COVID-19.**
- **People with MS should be vaccinated as soon as the vaccine is available to them.**
- **Even once you have received the vaccine, it is important to follow your country's guidelines regarding mask wearing (indoors and outdoors), social distancing, social group requirements, and hand washing.**

There are several COVID-19 vaccines in use in different countries around the world, with new ones being approved regularly. Instead of assessing each vaccine individually, we have provided information below about the main types of COVID-19 vaccines in use and in development. This guidance is based on available information and we will update it as new data become available. The spread of the SARS-CoV-2 virus is influenced by new COVID-19 variants and ongoing research is investigating how well the current COVID-19 vaccines protect against new and emerging variants.

We do not know how many people in COVID-19 vaccine clinical trials had MS, so our guidance is based on data from the general population in the vaccine clinical trials, research on the effects of other types of vaccination of people with MS, and new data emerging on the safety and effectiveness of COVID-19 vaccines specifically for people with MS.

Types of COVID-19 vaccine and how they work

Vaccines work by imitating a part of the virus that causes the disease (such as its genetic code or 'spike protein'), or an inactivated or weakened version of the virus, to prompt a response from the human immune system. In turn, this causes the body to produce antibodies and T-cells (a special population of white blood cells) to fight the virus, preventing the virus from entering and infecting other cells in the body. These vaccines do not lead to any genetic change in our bodies, do not get into the brain, and do not alter the genetic code of a foetus. There are currently five different types of COVID-19 vaccine in use or in development that work in different ways (with examples below). A useful COVID-19 vaccine tracker can be found at: https://covid19.trackvaccines.org/

1. **mRNA vaccines** use tiny fat droplets to introduce the genetic code (mRNA) for the coronavirus 'spike' protein into your system. The mRNA directs production of additional spike protein which is then seen and targeted by the immune system, resulting in the production of antibodies and T-cells against the real virus.
    - Pfizer-BioNTech (Comirnaty)
    - Moderna (Spikevax)

2. **Non-replicating viral vector vaccines** have the genetic code for the spike protein in a viral vector. These vectors are best understood as just the shell and delivery mechanism of a virus (commonly from an adenovirus), but they lack the parts a virus needs to replicate and so can never cause an infection. Similar to mRNA vaccines, viral vector vaccines direct the production of the spike protein so that it can be seen and targeted by the immune system.
    - AstraZeneca/Oxford (Vaxzevria)
    - Serum Institute of India (Covishield)
    - Gamaleya Research Institute (Gam-COVID-Vac or Sputnik V)
    - Janssen/Johnson & Johnson (Ad26.COV2-S)

[1] Provided that they do not have any known allergies to any of the components of the vaccines.

3. **Inactivated virus vaccines** use an inactivated form of the whole coronavirus. The coronavirus has been 'killed' so that it is unable to get into cells and replicate, and it cannot cause a COVID-19 infection. The immune system recognises the whole virus, even though it is inactivated.
    - Sinovac (CoronaVac)
    - Sinopharm (BBIBP-CorV)
    - Bharat Biotech (Covaxin)

4. **Protein vaccines** have the coronavirus spike protein itself (not the genetic code), along with something that boosts the immune system (an 'adjuvant') to ensure the spike protein is targeted.
    - Novavax (Nuvaxovid)
    - Serum Institute of India (Covovax)

5. **Live attenuated vaccines** use a weakened, but still replicating virus. Such vaccines work by causing a mild infection in people with regular immune function. **They can be dangerous in a person with a compromised immune system, so they are contraindicated for people with MS, due to the way some disease modifying treatments work.**
    - Currently (February 2022), there are no live attenuated COVID-19 vaccines in use – they are only being investigated.

Astrazeneca and Johnson & Johnson (J&J) COVID-19 vaccines

We are aware that some countries are pausing the use of the Astrazeneca and Johnson & Johnson (J&J) COVID-19 vaccines, and other countries have issued specific health warnings. The Astrazeneca and to a lesser extent the J&J vaccines have both been linked to an infrequent side effect, known as vaccine-induced thrombosis and thrombocytopaenia, which can lead to blood clots. These blood clots can occur in the brain (cerebral venous sinus thrombosis - CVST), in the legs or abdomen (deep vein thrombosis - DVT) or in the lungs (pulmonary embolism). People who have received the Astrazeneca or J&J vaccine and develop severe headache, abdominal pain, leg pain, or shortness of breath within three weeks after vaccination should seek immediate medical attention.

Currently, there does not appear to be any additional blood-clotting risk for people with MS. MSIF's expert group continues to monitor the situation, and we will swiftly communicate any potential safety concerns specific to those living with MS.

The following guidance refers to the mRNA, non-replicating viral vector, inactivated virus or protein COVID-19 vaccines (types 1-4 listed above).

People with MS should get a COVID-19 vaccine

The science has shown us that the COVID-19 vaccines are safe and effective for the majority of people. Like other medical decisions, the decision to get a vaccine is best made in partnership with your healthcare professional. You should get a COVID-19 vaccine as soon as it becomes available to you. The benefits of getting vaccinated coupled with 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 a vaccine as soon as they can to maximise protection against COVID-19.

Most of the COVID-19 vaccines require two doses, and where this is the case, you need to follow your country's guidelines on the timing of the second dose. The Johnson & Johnson (J&J) vaccine requires a single dose. In some countries, you may get offered additional doses if you are categorised as having severe immunosuppression. See section on additional doses below.

If you have had COVID-19 and recovered, you should also get the vaccine, because people who have had COVID-19 infection in the past can get infected again. It is normal practice to wait until you have recovered from an illness before being vaccinated. But you should still get vaccinated as soon as you can after recovery, following the government guidelines in your country around timing of vaccination after infection, and taking into account timing your DMT if relevant (see timing of DMTs and vaccine section).

There is no evidence that people with MS are at higher risk of complications from the mRNA, non-replicating viral vector, inactivated virus or protein COVID-19 vaccines (1-4), compared to the general population.

None of the currently available vaccines contain live virus and the vaccines will not cause COVID-19 disease. These types of vaccine are not likely to trigger an MS relapse or to worsen chronic MS symptoms. Although there are currently no **COVID-19 live attenuated vaccines (5),** they may be developed in future. It is important to know which COVID-19 vaccine you are offered, as this could have implications for timing the vaccine with your MS treatment.

You do not need to self-isolate after the vaccination. The vaccines can cause reactions, including fever or fatigue, which should not last more than a few days after vaccination. 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 vaccines requiring two doses) for it to be fully effective. Side effects such as fever, muscle discomfort and fatigue can be a sign in some people that the vaccine is doing its job (it is getting your body to mount a response against the virus, and therefore is starting to protect you). However, not everybody will have side effects andit is not necessary to experience side effects for the vaccine to be effective.

It is safe to receive a COVID-19 vaccine when you are on DMTs for MS

It is safe to receive a COVID-19 vaccine while taking DMTs. In order to maximize the efficacy of the COVID-19 vaccine, your doctor might advise on the timing of vaccine doses relative to your DMT. Continue taking your DMT as advised by your MS healthcare professional. Stopping some DMTs abruptly can cause severe worsening of MS.

It is safe to receive a COVID-19 vaccine if you have MS and are pregnant

Women with MS who are pregnant should also get a COVID-19 vaccine. It is important to note that COVID-19 can lead to premature birth and serious illness for the mother.

Some DMTs may reduce the effectiveness of the COVID-19 vaccines

There is some evidence that people taking some types of DMT (fingolimod, siponimod, ozanimod, ponesimod, ocrelizumab, rituximab, ofatumumab) may have a reduced and possibly undetectable antibody response to the COVID-19 vaccines. This does not mean that the vaccine has no benefit.

If you use one of these DMTs and take an antibody test it may show a low or no response. This does not mean that the vaccine is ineffective. Antibodies are proteins produced by the immune system and their presence is one indication that the vaccine is providing protection from the virus. Other components of the immune system are stimulated by the vaccine and could also contribute to protection. Although some people with MS showed weaker antibody production after vaccination, they can generate robust T-cell responses. T-cells are special groups of white cells that may help fight COVID-19, but they are not yet used in daily clinical practice to assess the effect of vaccines.

Note that there are many different tests that are used to measure responses to the COVID-19 vaccines. There is currently no global agreement about which laboratory test is the best for monitoring vaccine responses and predicting protection from COVID-19

Delaying the start of a DMT, or altering DMT timing, is a strategy to allow the vaccine to be fully effective

If you are able to plan when you receive your vaccine, please discuss with your MS healthcare provider how and whether to coordinate the timing of your vaccine with the timing of your DMT dose - if you are on a DMT where this is relevant (see section on timing DMTs and vaccines). This should help ensure the vaccine is as effective as possible at generating an immune response to the coronavirus. **Given the potential serious health consequences of COVID-19 disease, getting the vaccine when it becomes available to you may be more important than optimally timing the vaccine with your DMT.**

People with MS who are immunocompromised should receive additional doses of a COVID-19 vaccine if it is offered to them

Note that in this guidance, we refer to **additional doses** and **booster doses**, which are not the same. An additional dose is intended to improve the response to the first and second dose of the vaccine in immunocompromised people. A booster dose is given when the immune response to the first and second dose is likely to have waned over time.

People with MS who are fully vaccinated*, but are taking certain DMTs, may be eligible for **additional COVID-19 vaccine doses**, depending on the specific recommendations in your country. One or more additional doses are intended to improve immunocompromised people's response to their first vaccination cycle.

Studies of the COVID-19 vaccine responses in MS have shown a reduced response to the vaccine among those who use certain disease modifying therapies (DMTs). People with MS using certain DMTs may benefit from additional COVID-19 vaccine doses. Specific recommendations in your country will determine whether you are offered one or more additional doses and the timing of when these are offered. If this is available to you, talk with your MS healthcare provider to determine the best time to get your additional dose(s).

*Fully vaccinated = once you have received the single dose of the J&J vaccine or the second dose of any other type of vaccine.

People with MS should receive a booster dose of a COVID-19 vaccine if it is offered to them

People with MS may also be offered a **booster dose of the COVID-19 vaccine**, depending on the specific recommendations in your country. A booster vaccination is given to people when their immune response is likely to have waned over time, several months after being fully vaccinated*. If booster doses of the COVID-19 vaccines are available in your country, talk with your MS healthcare provider to determine the best time to get your booster dose.

*Fully vaccinated = once you have received the single dose of the J&J vaccine or the second dose of any other type of vaccine. For some people with MS, a booster dose will be offered several months after you have received your additional dose(s).

Even once you have received the vaccine, it is important to continue to take precautions against COVID-19

Even when vaccinated, you can still be infected with COVID-19 and give it to others. This is even more likely for those on DMTs that might reduce the effectiveness of the vaccines (fingolimod, siponimod, ozanimod, ponesimod, ocrelizumab, rituximab, ofatumumab). The safest approach is to ensure that those close to you are fully vaccinated, and that you continue wearing masks, practise social distancing, wash hands and follow your country's guidelines about getting tested for COVID-19 when necessary.

COVID-19 vaccines for young people (under 18 years old)

The following guidance for young people applies to vaccines currently authorised for use for this age group, and should be read together with the general advice for people with MS.

Young people aged 17 and under should be vaccinated against COVID-19

The science has shown us that the COVID-19 vaccines are safe and effective. Some countries recommend COVID-19 vaccination for all children and adolescents from the age of 5 years and older using one of the COVID-19 vaccines that is authorised for this age group. Vaccination of this age group brings us one step closer to ending this pandemic and is an additional layer of protection for the most vulnerable among us.

Young people are at risk of severe illness from COVID-19

Cases of COVID-19 infection are rising in children and adolescents. While most COVID-19 infections in children and adolescents are mild, some infections are severe or even fatal. In addition to health risks due to COVID-19 infection, children and adolescents are at risk for Multisystem inflammatory syndrome in children (MIS-C)/Paediatric Multisystem Inflammatory Syndrome (PIMS-TS) two to six weeks after infection with COVID-19. MIS-C/PIMS-TS is a condition where different body parts can become inflamed, including the heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs. MIS-C/PIMS-TS is serious, even deadly, although with prompt and often intensive care most young people with MIS-C/PIMS-TS survive. The benefits of the vaccine, coupled with the risks of COVID-19 and MIS-C/PIMS-TS, outweigh any potential risks from the vaccine.

Young people with MS should be vaccinated against COVID-19

The importance of COVID-19 vaccination for young people with MS mirrors the advice for this age group in general, as well as the advice for adults with MS. While there is no evidence to date that young people with MS experience more severe COVID-19 infection, nor that they are at higher risk for MIS-C compared to young people who do not have MS, vaccination is strongly encouraged.

Household and family members of people with MS should be vaccinated against COVID-19

People who live in the same household as anyone with MS should also get vaccinated**.** Vaccination of an entire household, including young people under the age of 18, reduces the risk of spreading COVID-19 between people in close contact with each other.

Recommendations for timing DMTs and the COVID-19 vaccines

The decision of when to get the COVID-19 vaccine should include an evaluation of your risk of COVID-19, (see the general advice for people with MS for groups who are more at risk), and the current state of your MS. If the risk of your MS worsening outweighs your risk of COVID-19, do not alter your DMT schedule and get the vaccine when it is appropriate for you. If your MS is stable, consider the following adjustments in the administration of your DMT to enhance the effectiveness of the vaccine. ***This suggested scheduling is not always possible and getting the vaccine when it becomes available to you may be more important than timing the vaccine with your DMT. Work with your MS healthcare provider to determine the best schedule for you.***

Interferons, glatiramer acetate, teriflunomide, monomethyl fumarate, dimethyl fumarate, diroximel fumarate, natalizumab — If you are about to start one of these DMTs for the first time, do not delay starting it for your COVID-19 vaccine injection. If you are already taking one of these DMTs, no adjustments to your DMT administration are needed.

Fingolimod, siponimod, ozanimod, ponesimod — If you are about to start one of these medicines, consider getting fully vaccinated* two to four weeks before starting fingolimod, siponimod, ozanimod or ponesimod. If you are already taking one of these medicines, continue taking it as prescribed and get vaccinated as soon as the vaccine is available to you.

Alemtuzumab — If you are about to start alemtuzumab, consider getting fully vaccinated* at least four weeks before starting alemtuzumab. If you are already taking alemtuzumab, consider getting vaccinated at least 24 weeks after the last alemtuzumab dose. When possible, resume alemtuzumab at least four weeks after getting fully vaccinated*.

Oral cladribine — If you are about to start cladribine, consider getting fully vaccinated* two to four weeks before starting cladribine. If you are already taking cladribine, the currently available limited data does not suggest that timing the vaccine in relation to your cladribine dosing is likely to make a significant difference in vaccine response. Getting the vaccine when it becomes available to you may be more important than coordinating timing of the vaccine with your cladribine treatment. If you are due for your next treatment course, when possible, resume cladribine two-four weeks after getting fully vaccinated*.

Ocrelizumab, rituximab — If you are about to start ocrelizumab or rituximab, consider getting the fully vaccinated* two to four weeks before starting ocrelizumab or rituximab. If you are already taking ocrelizumab or rituximab, consider getting vaccinated at least 12 weeks after the last DMT dose. When possible, resume ocrelizumab or rituximab at least 4 weeks after getting fully vaccinated*.

Ofatumumab — If you are about to start ofatumumab, consider getting fully vaccinated* at least 2 weeks before starting your DMT. If you are already taking ofatumumab, there is no data to currently guide timing of the vaccine in relation to your last DMT injection. Consider getting vaccinated four weeks after your last dose of ofatumumab. When possible, resume ofatumumab injections four weeks after getting fully vaccinated*.

High-dose steroids — Consider getting the vaccine injection three to five days after the last dose of steroids.

*Fully vaccinated = once you have received the single dose of the J&J vaccine or the second dose of any other type of vaccine.

Treatments for COVID-19

COVID-19 vaccines have proven to be the best defence available against the COVID-19 complications of the SARS-CoV-2 virus, including all its variants.

People who develop symptoms of COVID-19 or test positive for the virus should contact their healthcare provider as quickly as possible to discuss their treatment options.

Some people with MS may not receive optimal protection from vaccines. In some countries, for specific populations such as people who are immunocompromised, there are treatments available that can help provide another layer of protection. These treatments can reduce the risk of getting infected with COVID-19 or reduce the severity of the infection – but the availability of these treatments is currently very limited.

This is a rapidly changing field, with new treatments being developed and tested all the time, but also new variants of the SARS-CoV-2 virus affecting the efficacy of current treatments. MSIF's expert group continues to monitor the situation, and we will update the guidance as new information emerges.

Like all other medical decisions, the decision to take any type of treatment for COVID-19 is best made in partnership with your healthcare provider.

Pre-exposure prevention of COVID-19

In some countries, there are treatments available to help prevent infection with the SARS-COV-2 virus. These treatments may be beneficial for people who are not expected to have adequate immune responses to the COVID-19 vaccines or who have a severe allergy to the vaccines, and are usually only available for those aged 12 years and older. Examples of this type of treatment are tixagevimab and cilgavimab (Evusheld) or sotrovimab (Xevudy). Additional antiviral drugs are currently being tested in clinical trials.

Post-exposure prevention of COVID-19

In some countries, there are treatments available to help prevent infection with SARS-COV-2 if people know they have been exposed to the virus. These treatments may be beneficial for people who are not expected to have adequate immune responses to the COVID-19 vaccines or who have a severe allergy to the vaccines, and are usually only available for those aged 12 years and older. However, most of these treatments have decreased efficacy against the omicron variant.

If you test positive for COVID-19

People who develop symptoms of COVID-19 or test positive for the infection should contact their healthcare provider as quickly as possible to discuss treatment options. In some countries, there may be treatments available that can help people with MS reduce the risk of becoming seriously ill. The types of treatment currently in use include monoclonal antibody and antiviral medications. They need to be administered as soon as possible and within 5 days after symptom onset. These treatments have limited availability and will usually be offered only to people over 12 years of age who have tested positive for COVID-19 and are at high risk of getting seriously ill, which may include people with MS taking certain DMTs.

None of these treatments are, in principle, contraindicated in people with MS. Therefore, if any of these treatments are available to you, talk to your MS healthcare provider about whether the use of one of these treatments is appropriate and any considerations for timing your DMT after receiving COVID-19 treatment.

Disease modifying therapies (DMTs) and COVID-19

Many 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 MS treatment.

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

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 – among other factors – 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
- Availability of and access to a COVID-19 vaccine

Evidence on the impact of DMTs on COVID-19 severity

Most evidence we have currently about the impact of DMTs on the severity of COVID-19 comes from studies before the COVID-19 vaccines were widely available.

Interferons and glatiramer acetate are unlikely to impact negatively on COVID-19 severity. There is some 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 compared with the general population. It is unlikely that people with MS taking ozanimod or ponesimod will have an increased risk either, as they are assumed to be similar to siponimod and fingolimod.

There is some evidence that therapies that target CD20 – ocrelizumab, rituximab, ofatumumab – may be linked to an increased chance of having more severe COVID-19, including a greater risk of hospitalisation. However, these therapies should still be considered as an option for treating MS during the pandemic and people on these DMTs should get vaccinated. People with MS who are taking these DMTs (or ublituximab that works in the same way) should take precautions to reduce their risk of infection. If people with MS taking these types of DMT test positive for COVID-19, they should contact their healthcare provider as soon as possible to discuss potential treatment options (see Treatments section).

More data on the use of alemtuzumab and cladribine during the COVID-19 pandemic are required to make an 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 take appropriate precautions 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 undergone aHSCT are more at risk of getting infections (including COVID-19) for up to 12 months following the procedure. You are likely to need to take additional precautions during this time, as advised by your healthcare provider.

General 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 more 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
- Older people with MS
- 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, wheelchair or other mobility device)
- People with MS who also have health conditions such as obesity, diabetes or heart disease
- People taking certain disease modifying therapies for their MS (see section on DMTs and MS)
- People who have taken corticosteroids in the two months prior to COVID-19 infection

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 if indoors and the room is poorly ventilated. 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.
- 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.

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.

Relapses and other health concerns

People with MS should 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’. The steroids and dosages used in this context are different from the situation of a MS relapse.

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.

MSIF's COVID-19 guidance group

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. The guidance relating to young people was developed in conjunction with the International Pediatric MS Study Group.

This statement was first agreed on 13 March 2020. The latest revisions were agreed and published on 21 March 2022.

MS neurologists and scientific specialists

Professor Alfredo Rodriguez Antiguedad – Universidad del País Vasco, Spain
Professor Brenda Banwell, Chair of MSIF's International Medical and Scientific Advisory Board (IMSB) – University of Pennsylvania, USA
Professor Amit Bar-Or - University of Pennsylvania, USA
Professor Simon Broadley – Griffith University and Gold Coast Hospital, Queensland, Australia
Professor Olga Ciccarelli – Institute of Neurology, UCL, UK
Professor Maria Pia Amato, President of ECTRIMS – University of Florence, Italy
Professor Andrew Chan – Bern University Hospital, Switzerland
Professor Jeffrey Cohen, President of ACTRIMS – Cleveland Clinic Mellen Center for MS, USA
Professor Jorge Correale, Deputy Chair of MSIF's IMSB – FLENI, Argentina
Professor Giancarlo Comi – IRCCS Ospedale San Raffaele, Italy
Dr Huang Dehui – Chinese PLA General Hospital, China
Vanessa Fanning – Australia
Professor Kazuo Fujihara, President of PACTRIMS – Fukushima Medical University School of Medicine, Japan
Professor Gavin Giovannoni – Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK
Dr Fernando de Gracia, President of LACTRIMS – Clinica de Esclerosis Multiple, Servicio de Neurologia Hospital Santo Tomas, Panama
Professor Fernando Hamuy Diaz de Bedoya, past-President of LACTRIMS – Universidad Nacional de Asuncion, Paraguay
Professor Bernhard Hemmer – Technische Universität München, Germany
Professor Joep Killestein – Amsterdam UMC, Netherlands
Professor Barbara Kornek – Medical University Vienna, Austria
Professor Daphne Kos, President of RIMS – KU Leuven, National MS Center Melsbroek, Belgium
Dr Céline Louapre – Sorbonne Université, France
Professor Catherine Lubetzki – ICM, France
Professor Aaron Miller– Icahn School of Medicine at Mount Sinai, USA
Anne Restan – Ireland
Professor Mohammad Ali Sahraian – MS Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Iran
Professor Marco Salvetti – Sapienza University, Italy
Professor Nancy Sicotte - Chair, National Medical Advisory Committee, National MS Society (US) and Cedars-Sinai Medical Center, USA
Dr Joost Smolders – ErasmusMC, Netherlands
Professor Per Soelberg Sørensen – University of Copenhagen, Denmark
Professor Maria-Pia Sormani, on behalf of the Italian MuSC-19 study – University of Genoa, Italy
Ana Torredemer – Spain
Professor David Tscharke – Australian National University, Australia
Professor Bassem Yamout, President of MENACTRIMS – American University of Beirut Medical Center, Lebanon
Professor Frauke Zipp – Johannes Gutenberg University Medical Center in Mainz, Germany

MSIF and its member organisations

Dr Anne Helme, Victoria Gilbert, Dr Michael Thor, Peer Baneke – MS International Federation
Phillip Anderson – MS Society (UK)
Pedro Carrascal – Esclerosis Múltiple España (Spain)
Dr Tim Coetzee, Dr Douglas Landsman, Julie Fiol – National MS Society (US)
Professor Judith Haas – Deutsche Multiple Sklerose Gesellschaft Bundesverband e.V (Germany)
Dr Kirstin Heutinck – Stichting MS Research (Netherlands)
Dr Pam Kanellis – MS Society of Canada
Elisabeth Kasilingam – European MS Platform
Dr Christoph Lotter – Swiss Multiple Sclerosis Society
Marie Lynning – Scleroseforeningen (Denmark)
Dr Julia Morahan – MS Research Australia
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