



# An introduction to Research and MS

## How research in MS is making a difference

MS is a very active area of research. New treatments are coming through and established ones are being improved. This gives lots of hope for the future. This resource explains some of the approaches being taken and the progress so far. The [i symbol](#) will point you to further resources.

### What are the key areas of research?

#### Preventing MS

If scientists could work out who was more likely to get MS, what the trigger factors were and how to stop them, then perhaps a pill, a supplement or a particular lifestyle would be all that was needed to prevent MS. This could be a bit like taking vitamin C (or eating oranges) to prevent scurvy or taking vitamin D (or getting out in the sunshine) to prevent rickets. Those conditions seemed difficult to research and cure many years ago but we now know how to prevent them.

Many scientists are trying to understand how MS is triggered and who is more likely to get it. It seems to be a complex story where at least 100 genes and a range of environmental factors interact. The biology underlying MS is complicated and it may be some time before MS can be prevented.

[i MS Explained](#)

#### Curing MS

Perhaps the next best thing would be to cure MS. If it couldn't be prevented, it would be best to cure it as soon as it was diagnosed. Again, the complex biology of MS makes this a tough research question. Science is adding to knowledge all the time but it will probably need many pieces of work to come together, like a jigsaw, before MS is understood enough to design a cure.

[i MS Explained](#)

#### Stopping relapses

Progress has been made in this area. Although relapses are rarely stopped completely, the number of them and their impact can be decreased for many people by the disease modifying treatments. This is good news as it moderates the ups and downs of symptoms so life is more predictable.

There is plenty more research to be done in this area. Ideally relapses would be eliminated, treatments would be easy to administer and not taken so often.

[i Relapsing remitting MS: an introduction](#)

[i Disease modifying treatments: an introduction](#)



Some researchers are looking at repairing the damage caused by MS so that the various systems of the body can work better again.

## Stopping progression

Stopping progression is an important area of research as increasing disability can have an impact on someone's quality of life. This has proved a difficult area to research and, so far, there isn't anything which will stop progression in its tracks. Some of the disease modifying treatments can slow down progression through their effect on decreasing relapses. There are ongoing clinical trials which are testing these drugs in people with progressive MS who don't have relapses but we don't know the results yet.

[\*Primary progressive MS: an introduction\*](#)

[\*Secondary progressive MS: an introduction\*](#)

## Repairing the damage caused by MS

It would be good to stop relapses and progression but some researchers are looking at repairing the damage caused by MS so that the various systems of the body can work better again. The prime targets are the immune system and the nervous system.

[\*MS Explained\*](#)

## Improving treatments

There is a wide range of possible symptoms in MS and better treatments would improve everyday life. Research is continuing to find new treatments as well as to improve existing treatments. Research areas include:

- New drugs, like more effective painkillers.
- New therapies, such as using Pilates to strengthen core body muscles or brain training techniques for memory difficulties.
- New lifestyle habits, like adopting specific exercise regimes or making changes in diet.

[\*Living well with MS\*](#)

[\*Treating symptoms\*](#)

## Improving everyday life

If symptoms or their consequences are having an impact, this can affect how someone feels about themselves and how others respond to them. This is the broad area of psychosocial research.

Research can look at how people live well with their MS and what minimises any effect on their lives, their relationships and social lives. Similarly, how do friends and family and the wider community interact with someone with MS? What is most helpful for everybody?

This kind of research can be very general and descriptive but can give a good insight into how to live life to the full. An example is research that looks at who copes best with anxiety and what helps them. This can be turned into suggestions for how others can decrease their anxiety or into better support for people who experience anxiety.



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## Why does research take so long?

Research can seem like a very slow process. You may see an item on the news announcing a scientific breakthrough but this may be swiftly followed by a warning that it will be years before it will make a difference to someone in the clinic. There are various reasons for this which include that:

- Research usually proceeds in stages and only if something gets through one stage, will it go on to the next one.
- Sometimes the research has only been done in animals, or in the laboratory, and still needs to be tested in humans. There's no guarantee that the results will be the same.
- Some tests take a long time, for example, a clinical trial of a disease modifying treatment has to recruit many participants, give them the drug for at least a couple of years and then analyse a large amount of data to see what the effect might have been. This can easily add up to three or four years.
- The results aren't what was hoped for so the study has to be redesigned, take a different direction or be abandoned.
- There are licenses or other approvals which have to be gained before a treatment can be made available outside the research study.

*Research: [www.mstrust.org.uk/research](http://www.mstrust.org.uk/research)*

## How can I tell good research from hype?

The most important thing is to use reliable sources of information like the MS Trust. Other sources may sound very convincing but may just be opinion, or someone's personal experience, presented as if they were facts that would apply to everyone. It is possible that a treatment helped a particular person, or a number of people, but how many people were not helped? Often, they are the ones who don't speak up.

Watch out for anyone, including on the internet or in the press, who says that they can cure MS. At present, there is no cure. Also, be careful of people selling supplements and don't buy anything which does not come from a trusted supplier as the alternative treatments market is poorly regulated.

It can be tempting to try an experimental or controversial treatment but the risks of harm, significant side effects and high costs should be considered. Try not to be pressured into something by well-meaning friends or family. If in doubt, have a chat with your MS nurse or GP.

*Research: [www.mstrust.org.uk/research](http://www.mstrust.org.uk/research)*

## Do your own research

If you find a topic of interest, do further research on the websites of the main MS charities. If there's been a breakthrough, they will be reporting it too. If they've not reported it, or have a different take on the research, then consider what is being said very carefully. Look to see if the research is at an early stage as it may be a while before it comes to the clinic and may not get there at all.

It can be tempting to try an experimental or controversial treatment but the risks of harm, significant side effects and high costs should be considered.

These questions can help you find out if there is any good evidence behind the claims:

- Have the results been independently researched and repeated by another group of scientists?
- Has the study been published in a scientific journal?
- What do other experts in the field say?
- Has there been a clinical trial?
- Is the treatment licensed? What is it licensed for?

*① Sources of information and support*

*① Research: [www.mstrust.org.uk/research](http://www.mstrust.org.uk/research)*

*① Sense about science: [www.senseaboutscience.org.uk](http://www.senseaboutscience.org.uk)*

## What's hot in MS research?

The MS Trust provides information about the latest research in MS. You could:

- Read the research update pages in our free newsletter, **Open Door**. You can sign up online or order a copy through our publications list.
- Receive our weekly research update email alert which highlights new publications in the medical and scientific journals. One topic is explored in depth each week.
- Read about new treatments being developed.
- Read about the pros and cons of getting involved in clinical research trials yourself.
- Read about research funded by the MS Trust.

As research is a fast moving topic, much of our information is only available online. If you don't have access to the internet, you can contact the Information Team and they can send you the information you would like.

*① Publications for people with MS from the MS Trust*

*① Getting involved in research: [www.mstrust.org.uk/research/gettinginvolved](http://www.mstrust.org.uk/research/gettinginvolved)*

*① Open Door: [www.mstrust.org.uk/opendoor](http://www.mstrust.org.uk/opendoor)*

*① Research funded by the MS Trust: [www.mstrust.org.uk/mstrustprojects](http://www.mstrust.org.uk/mstrustprojects)*

*① Research update email alert: [www.mstrust.org.uk/research-update](http://www.mstrust.org.uk/research-update)*

*① Treatments in development: [www.mstrust.org.uk/did](http://www.mstrust.org.uk/did)*



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## Making Sense of MS

This information is part of a set of resources for people who are newly diagnosed with MS. You might like to look at our introductory resource, Making Sense of MS, which answers the questions most commonly asked around the time of diagnosis.

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Research and MS

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