

Resource

## Possible causes and risk factors

Whilst it is not fully understood why an individual develops RA when they do, a lot of the causes and risk factors have been identified. These are generally broken up into two categories, genetic factors and environmental factors. There is also usually a 'trigger' just prior to the onset of the disease.

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There is still much to learn about why rheumatoid arthritis affects people when it does. It is hard to say for certain why one individual person has developed RA. However, some of the potential causes of rheumatoid arthritis and the risk factors that make developing rheumatoid arthritis more likely, have been identified.

## Genetics

Rheumatoid arthritis is an autoimmune disease, which means that your immune system is attacking healthy tissue in the body (in this case the lining of the joints). Whilst you may not have anyone in your family with RA or another condition that affects the immune system, it is possible to carry genes that make you more more likely to develop it. To give you an indication about the significance of the genetic links, in identical twins, where one twin has RA, the chances of the other twin developing it is around 15%. When a parent has RA, the chances of their child also developing it are only around 1-3%.

## Environmental

One of the biggest environmental factors in developing rheumatoid arthritis is smoking. The chances of developing the condition go up the more heavily you have smoked, the longer you smoked for and (if you have quit smoking) how long ago you gave up. Being a current smoker has also been shown to make symptoms worse and make a good response to medication less likely, so it is a good idea to quit smoking if you have RA or know that it runs in your family. Being overweight has also been associated with a worsening of rheumatoid arthritis symptoms and has been looked at as a potential risk factor in developing RA.

## Hormones

Hormones are also thought to play an important role in the development of RA. RA affects more women than men and commonly comes on during periods of hormonal change for women, such as after giving birth or onset of menopause.

So, you might be genetically susceptible to getting RA, and this risk might be further increased by hormones and environmental factors.

## Triggers

The last piece of the puzzle is the 'trigger', and this is arguably the bit that is least understood. Anecdotally, people often talk of their RA coming on after periods of stress or physical or mental trauma, or following an illness, and, as previously mentioned, after giving birth. Some studies have backed up some of these claims, but it is still not clear why that particular event triggered RA at that point in time for that individual (i.e. if childbirth is the trigger, but this is your second child, why wasn't it triggered after your first child?).

The exact cause of your RA may never be fully understood, and much of it would have been outside of your control. Even if you do have additional environmental risk factors, or feel that something within your control triggered the condition, you should never feel you are to blame. RA is impossible to predict, and it probably happened at this time because of a number of factors coming together at once.

Understanding the causes can help researchers in finding new and potentially better ways of treating rheumatoid arthritis. It could also help them to one day find a cure or a way to prevent the disease from developing in the first place.

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#### [The genetics of rheumatoid arthritis](#)

[RA is caused by a combination of genetic and environmental factors. To date, researchers have found over 100 genetic changes that occur more commonly in patients with RA.?](#)

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## What is the cause of rheumatoid arthritis? Non-genetic factors

It has been estimated that the genetic factors determine 50 – 60% of the risk of developing RA. The fact that this figure is not 100% means that other non-genetic or "environmental" factors also play a part.

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