

## **The CATCH Research Study and What We Learned in 2019**

The Canadian Early Arthritis Cohort (also called CATCH for short) is a research study happening at many places in Canada and that seeks to improve the quality of care for people living with early inflammatory arthritis. There are over 3,300 participants in CATCH who make it possible – some have even been part of CATCH for over 10 years! CATCH is the only national early arthritis study that is following people over time and watching their arthritis and its response to treatments.

Each year, CATCH's research team presents research results at rheumatology conferences. This document is a summary of their most recent presentations for you in easy to understand language.

### **Medications**

#### ***Steroids***

Steroids are a kind of medication that people with RA often take, especially if their RA is very active. Steroids should be used for short times and at low doses because of their potential side effects. CATCH researchers compared how long people took steroids by pill to those who took steroids by both pill and injection, thinking that people taking a combination would take them for a shorter time. But they found people who took steroids as pills and as injectables didn't take them for less time, nor did their RA activity improve more. It's thought that people taking steroids have more persistent arthritis and could benefit from more doctors' visits and more intensive disease-modifying anti-rheumatic drugs (called DMARDs) or other types of treatments. You can read more about [this research here](#).

#### ***Decreasing Treatment and the Risk of Flare***

Getting RA in to remission through treatment with many types of DMARDs can have a major impact on patients' lives and healthcare costs. About 40% of people with early RA went in to sustained remission (a period of very low RA activity for at least 6 months). Over the next year, about one-third of people in sustained remission had their treatments reduced, mostly by adjusting their DMARDs. This group of people is being studied more to see whether or not medications can be decreased safely without any RA flares (that is, a person's RA becoming more active again). You can read more about [this research here](#).

#### ***RA and Stress***

Many people feel their RA started because of a stressful life event or events. CATCH research shows that people diagnosed with RA were more likely to have stressful events in life in the year before their diagnosis and at diagnosis had much worse depression, fatigue, sleep issues, pain, and measures of their RA (called disease scores). These individuals were more likely to be women, younger, and also have other diagnoses such as fibromyalgia. Even a year after diagnosis, people who had stressful life events before their diagnosis still reported that

depression, fatigue, sleep issues, pain, etc. were a problem. Emotional support along with their usual treatments will probably help these people feel and function better. You can read more about [this research here](#).

### **Pain**

Persisting pain and non-articular pain decreases quality of life for people with RA. Non-articular pain is often due to fibromyalgia. Early RA patients often have regional and widespread non-articular pain. Regional pain is more common and may be due to strain injuries following a time of active RA. Research suggests that RA patients with non-articular pain do not experience remission as often as other patients. Doctors should determine whether people with RA have non-articular pain and treat this. You can read more about [this research here](#).

### **RA and Mortality**

People who have RA have a greater risk of mortality (another word for mortality is death) than the general population. By looking at health records from people living with RA and from people who were deceased and had RA, it was found that those who were deceased had more issues with their daily functions because of their RA at one year after their RA diagnosis. It was thought that when a person's RA is not well-controlled within their first year after diagnosis, it led to more issues with functional abilities that potentially contributed to higher mortality.

### **RA Activity**

#### ***Measuring if RA is Under Control in People who aren't in Clinical Trials***

Early RA diagnosis and starting DMARDs are ways to help patients get their RA in to remission. Many measures of RA disease activity are used in research and clinical practice which may affect treatment decisions and measurement of quality of care. The CATCH researchers found that using different ways to measure RA disease activity impacted if a person was considered to be in remission and also affected decisions about treatment. Using any measure showed similar levels of remission improvement but without a "best measure" that considers a patient's perspective, about one in three early RA patients does not go in to remission. You can read more about [this research here](#).

#### ***Different Ways to Measure Remission***

There are different ways to measure remission for people with RA, and these different ways might be used in research or to measure a patient's remission in a rheumatology clinic for their patient record. Depending on which way remission is measured in the same patients, some measures will show a patient is in remission, but another measure may show that same patient is not in remission. No matter which method is used to measure remission, patients were not in remission most often if they were men who smoked and were seropositive (this term is related to a blood marker used in RA), and if they were women who were obese and had tender joints. For both women and men, having pain and a lower education were also related to not being in

remission. Overall, 30% of patients do not experience remission (no matter what measure is used), indicating that many patients need more help with getting their RA activity under control.

### ***Remission and Decreasing Medications in People in Remission***

When people are diagnosed with RA, the usual approach to treatment is to ‘hit their RA hard’ with many types of medications called disease modifying anti-rheumatic drugs (also known as DMARDs). The goal is to get RA in a state of really low activity which is called remission, and another goal is to help keep people’s RA in remission for as long as possible (when someone experiences remission for more than 6 months, it’s called sustained remission). There are different effects of DMARDs on different people, and there are also effects on the healthcare system (for example, the cost of these drugs, multiple doctor appointments and tests, etc.). The researchers wanted to see what things people with RA had in common whose RA went in to remission. Of the people in the study, 60% of them experienced sustained remission in the first 1.5 years after their diagnosis and 92% of them experienced sustained remission in the first 4 years after their diagnosis. Of the people who experienced remission, 80% of them were taking a DMARD called methotrexate, 71% of them were on a combination of drugs, and 13% of them were taking a drug called a biologic. In the year after experiencing sustained remission, 40% of people decreased their medications with their healthcare providers: 30% of them reduced or stopped taking methotrexate (some because of side effects), 23% reduced or stopped taking DMARDs other than methotrexate, and 4% reduced or stopped their biologic drug (one of these people stopped because of side effects). Overall, of people who were within one year of their RA diagnosis, 40% of them experienced remission, and about 30% of them experienced reducing medications as well.

### **Fatigue**

Fatigue is very common at the start of a person’s RA, and some people continue to have debilitating fatigue that results in a poor quality of life, affecting mood, work and home life, and their social life. Debilitating fatigue at RA diagnosis is seen in people with more active RA, worse pain and disability, and osteoarthritis/back pain, obesity, depression, poor sleep, and major stressors in the year before their diagnosis. In people with high fatigue, 70% improved by the end of the first year after diagnosis, and these people were less likely to be obese or have fibromyalgia, and had fewer other health issues, had RA symptoms for a shorter period of time, and had less fatigue when they were diagnosed. People whose fatigue improved in their first year after diagnosis also tended to be taking more than 20 mg per week of methotrexate.

Women with high levels of fatigue are usually obese, use steroids early in their diagnosis, are seronegative (a blood marker), and have poor sleep. Men with high levels of fatigue are obese and have 2.4 times higher odds of still having fatigue one year after diagnosis. Helping these individuals lose weight is important. Using a medication like methotrexate, and optimizing

weight, sleep, and mood may help persistent fatigue when RA is well controlled. It is important to use many ways to treat early RA.

For people with early RA who experience sustained remission (that means a period of 6 months of more of little or no signs of RA), their fatigue is decreased at the time of their first remission. People who responded well to RA treatments within their first 3- and 6-months of diagnosis had the biggest improvements in fatigue over time. It may be important to help people understand how taking care of their RA can affect their fatigue too.

You can read more about research in RA and fatigue [here](#), [here](#), and [here](#).

**Rheumatology Clinics are Different in Different Places**

Rheumatology clinics that are part of the CATCH study approach treatment of people with RA in similar way. Because these clinics are in different parts of the country, they have different: amounts of funding, clinic space, and human resources. Some clinics also have long waiting lists and diagnose people with RA at different times after their RA starts because of delays in referral from family doctors. Even with these differences, all of the clinics are committed to high quality patient care and are working to overcome the different challenges they face.