

# How does tofacitinib reduce pain in psoriatic arthritis?

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## Why did we carry out this research?



**Psoriatic arthritis (PsA)** is a long-term illness that can cause ongoing **pain**



**Tofacitinib** is a medicine that has been found to reduce pain in patients with **PsA**



We wanted to understand how **tofacitinib relieves pain** in patients with PsA

## How did we do this research?

We used results from **two clinical trials**, called OPAL Broaden and OPAL Beyond

In these trials, patients with PsA were randomly chosen to be given a medicine, including:



**5 mg of tofacitinib**  
twice a day



**Placebo**  
(a pill containing  
no medicine)



**Adalimumab** (only used in  
patients in OPAL Broaden,  
not included in this analysis)

Patients in these trials **reported how much pain** they were in, from 0 (no pain) to 100 (the most severe pain)

We used statistical models to understand how tofacitinib improves pain

## What does this research tell us?

**70.5%**

of the **pain relief** after taking **tofacitinib** was a result of improving the **signs and symptoms** of PsA:

- **Less itch**
- Lower levels of **C-reactive protein** (a protein in the blood found in patients with PsA)
- **Less enthesitis** (pain and stiffness in tendons and ligaments that attach muscles to bone)

**29.5%**

of the **pain relief** after taking **tofacitinib** involved other factors (for example, other biological pathways or signs and symptoms of PsA)

## What do we still need to find out?

- There are other factors that are affected by medicines that may relieve pain, which were not investigated in this research

## Why is this important?

- **Tofacitinib** reduces the **signs and symptoms of PsA**, which **lessens pain**
- By **assessing the signs and symptoms of PsA**, doctors can make sure they are providing suitable pain relief, in order to **improve quality of life for patients**

This is a plain language summary of an article published in *Rheumatology and Therapy* titled: *Identifying and quantifying the role of inflammation in pain reduction for patients with psoriatic arthritis treated with tofacitinib: a mediation analysis [URL]*, completed in May 2022.

These studies were sponsored by Pfizer Inc. Tofacitinib is approved to treat the condition under study that is discussed in this summary. This summary reports the combined results of the tofacitinib Phase 3 studies, [OPAL Broaden \(NCT01877668\)](#) and [OPAL Beyond \(NCT01882439\)](#). The results of individual studies may vary from these combined study results. Health professionals should make treatment decisions based on all available evidence. Writing support for this summary was provided by Lauren Hogarth, MSc at CMC Connect, McCann Health Medical Communications, and was funded by Pfizer Inc. The authors would like to thank the patients, investigators, and study teams involved in these studies.