

# Using antibodies against immune deficiency

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Early, intensive therapy with a biotechnologically produced medication can provide significantly faster pain relief for patients with rheumatic joint inflammation. Damage to joints can also be reduced when the medication is applied right at the beginning of the illness. A nationwide study sponsored by the Federal Ministry of Education and Research and conducted by Prof. Gerd-Rüdiger Burmester, director of the Medical Department, Division of Rheumatology and Clinical Immunology at Charité – Universitätsmedizin Berlin, came to this conclusion. Findings are published in the *Annals of the Rheumatic Diseases*.

In the study, the standard preparation of methotrexate was tested in comparison with a combined therapy of methotrexate and the biological agent (or biologic) adalimumab in treating [rheumatoid arthritis](#). Biologics are a particular group of medication produced from living cells using methods of molecular biology. The medication exclusively targets particular messenger substances in the immune system. It clings to the body's inflammatory substances and renders them harmless. Pain, swelling and the progress of inflammation are thus prevented.

The medication tested by Prof. Burmester's work group is called [adalimumab](#) and was approved ten years ago. It is one of the most frequently prescribed biologics worldwide. It is prescribed when standard therapies are inadequate or when side effects develop. The Charité study examined how the medication affects patients with rheumatoid [joint inflammation](#) when the therapy is started immediately following diagnosis and not only when other therapies do not take effect. [Study participants](#) had rheumatoid arthritis in the early stages, however, were considerably limited in their daily activities as a result of the symptoms. Half of the patients were given the combination therapy for six months and the other half serving as the comparison group was given the standard medication and a placebo. All test participants were then given methotrexate for another six

months. Though both groups had comparable symptoms at the end of study, the group that was given the biologic experienced significantly faster pain relief. Furthermore, x-rays showed less bone damage in those patients compared to the placebo group. Prof. Burmester is confident: "We were able to show that early, intensive therapy with this biologic helps patients maintain their quality of life and prevent bone damage."

**More information:** Detert J, et al. Induction therapy with adalimumab plus methotrexate for 24 weeks followed by methotrexate monotherapy up to week 48 versus methotrexate therapy alone for DMARD naive patients with early rheumatoid arthritis: HIT HARD, an investigator-initiated study. *Ann Rheum Dis*. 2012 Jul 10. [doi:10.1136/annrheumdis-2012-201612](https://doi.org/10.1136/annrheumdis-2012-201612). [ard.bmj.com/content/early/2012/07/10/ard-2012-201612.full](http://ard.bmj.com/content/early/2012/07/10/ard-2012-201612.full)

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