

## Ultrasound as an additional tool for diagnosing rheumatoid arthritis earlier

### What is rheumatoid arthritis?

Rheumatoid arthritis is a chronic illness that causes inflammation, particularly of the joints. This inflammation leads to chronic pain, stiffness and joint damage. Early diagnosis and treatment of rheumatoid arthritis can prevent long-term joint damage.

### What is an ultrasound scan?

An ultrasound scan is a procedure that uses high-frequency sound waves to create an image of part of the body.

### What we did

We looked at whether carrying out an ultrasound scan of the joints, in addition to other tests, could help diagnose people with rheumatoid arthritis earlier.

### What we found

In a review of six studies, ultrasound improved early diagnosis of rheumatoid arthritis. Using ultrasound increased detection of joint inflammation. Ultrasound was also likely to correctly predict the development of rheumatoid arthritis in patients with early signs of the disease.

People with symptoms of rheumatoid arthritis who attended an ultrasound clinic in Inverness reported that ultrasound was painless and quick. The information provided at the ultrasound clinic improved patients' understanding of their illness.

The information considered did not report any harms to people with suspected rheumatoid arthritis who had an ultrasound.

No information was found about the value for money of using ultrasound to improve the early diagnosis of rheumatoid arthritis.

### Future work

Research is needed to find out whether adding ultrasound scans to current tests for rheumatoid arthritis is good value for money. Research is also needed to find out if having an ultrasound test means rheumatoid arthritis patients receive appropriate treatment quicker.