

Imaging tests for low back pain

Numbers for adults with a mean age of 43 years and low back pain that lasted less than six weeks or six to twelve weeks, who either did or did not receive imaging tests (X-ray, CT scan, MRI). Patients were observed for up to 24 months.

	100 people without imaging tests*	100 people with imaging tests
Benefits		
How many patients with low back pain...		
...experienced improvement in pain in a two-year follow-up?		no difference
...experienced improvement in physical functioning in a two year follow-up?		no difference
...were more satisfied with their treatment?		no difference
...reported a general long-term improvement?***	50	43

Harms

Overdiagnosing occurs if imaging tests are carried out for patients with acute, non-specific low back pain within the first six weeks. Patients may receive false-positive results or incidental findings like spinal degeneration. This might affect the choice of treatment and in the worst case can lead to unnecessary surgeries. Moreover, patients who receive X-rays and CT scans are unnecessarily exposed to radiation.

What kinds of treatments patients received on the basis of imaging results and to what extent these differed from treatments of those without any imaging done was not sufficiently reported in these studies. However, treatment methods may have biased the results of the study.

*In some studies patients received imaging tests as part of their primary health care. **The indicated difference is not relevant for clinical practice because improvements were very low and patients rarely experienced any benefits.

Short summary: Imaging did not lead to improvements in pain, physical function, and satisfaction.

Sources: [1] Karel et al. *Eur J Intern Med* 2015;26(8):585-95. [2] BÄK, KBV, AWMF. Nationale VersorgungsLeitlinie Nicht-spezifischer Kreuzschmerz, 2. Auflage. Version 1. 2017.