

Radiology Tests for Patients With Low Back Pain: High-Value Health Care Advice From the American College of Physicians

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The full report is titled “Diagnostic Imaging for Low Back Pain: Advice for High-Value Health Care From the American College of Physicians.” It is in the 1 February 2011 issue of *Annals of Internal Medicine* (volume 154, pages 181-190). The authors are R. Chou, A. Qaseem, D.K. Owens, and P. Shekelle, for the Clinical Guidelines Committee of the American College of Physicians.

Who developed these recommendations?

The American College of Physicians (ACP) developed this advice. Members of ACP are internists, specialists in the care of adults.

What is the problem and what is known about it so far?

Low back pain is common and is usually due to strain on bones, muscles, and ligaments (that is, musculoskeletal). Musculoskeletal low back pain can hurt a lot but usually goes away after a few days to a month. Sometimes, medications and exercises are helpful. Studies have shown that radiology tests (x-ray, computed tomography, or magnetic resonance imaging) are beneficial only if the pain worsens despite initial care or if patients have signs of nerve damage or a serious medical condition. Such signs include weight loss, fever, abnormal reflexes, or loss of muscle power or sensation in the legs. Although most patients with low back pain do not need radiology tests, many patients get them.

Is there any benefit of routine radiology tests in patients with low back pain who do not have features associated with serious conditions?

Routine radiology tests have no benefit for musculoskeletal low back pain. Six good studies that compared routine radiology tests with no testing for patients with musculoskeletal low back pain showed that patients did about the same regardless of whether they got the tests. Some studies even suggested that patients did better without routine testing.

What is the harm of ordering radiology tests in patients with low back pain who do not have features associated with serious conditions?

Tests often show changes in the spinal bones (vertebrae) or the spaces between the vertebrae (discs). These findings are often not the cause of the low back pain and are common in persons without back pain. However, doctors and patients often feel they must do something, such as back surgery, when these findings are present. Many patients are then exposed to the risks of surgery even though it is appropriate only in very few patients with back pain. Radiology tests also expose patients to radiation, which may over time increase their risk for cancer.

Why are so many unnecessary imaging tests done for low back pain?

Patients often expect testing when they see a doctor, assume that more tests mean better care, or are dissatisfied when no tests are done. It can be easier for doctors to order a test than to explain why it has no benefit. Some doctors also worry about being sued if they do not order tests.

What does the ACP suggest that patients and doctors do?

Doctors should use a patient’s history and physical examination to determine whether the low back pain is musculoskeletal or due to a serious condition.

Doctors should not order x-ray, CT, or MRI unless they suspect a serious cause of low back pain.

Patients with musculoskeletal low back pain need information so that they understand why they do not need tests even though their backs hurt.

Doctors and patients should discuss the expected course of low back pain; the importance of remaining active; medications for pain and inflammation; and self-care options, such as heating pads, exercise, and other nondrug treatments.

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