Scans and low back pain

Current guidelines state that if you have had back pain for less than 12 weeks, x-rays and other scans such as MRI and CT are not recommended.

There are some exceptions to this rule and if your doctor has particular concerns scans may be requested at an earlier stage. However, this recommendation applies to most people who have had back pain for less than three months.

It is recommended that scans are performed to further assess back and/or leg pain when:

- Your doctor suspects a serious underlying condition.
- You have severe or increasing weakness in specific muscles of your leg or foot.
- Your doctor believes that you have nerve compression related to a disc herniation (causing pain, weakness in specific muscle groups and sensation changes in a specific area) **and** these symptoms:
  - have been present for more than four to six weeks
  - are severe enough to consider surgery.
- Your doctor believes that your symptoms are related to spinal claudication (causing leg symptoms like pain, tingling, numbness or weakness) **and** these symptoms:
  - have been present for several months
  - are severe enough to consider surgery.

There are several reasons to avoid back scans if they are not completely necessary:

- Most scans for low back pain find no abnormalities or only minor changes. Scans done on patients without back pain show similar degenerative (or 'arthritic') changes to those found in patients with back pain.
- Having a scan of your back does not improve your pain or help you to recover.
- Unnecessary x-rays and CT scans bring risks of radiation exposure.

Radiation from medical tests may cause damage to cells in your body. Large doses may cause the cells to become cancerous. The low dose of radiation exposure from an x-ray carries a tiny risk. CT scans, which use higher doses of x-rays, have a higher risk (although it is still very small).

Your doctor should always balance the possible benefits of you having the test with the small risk.

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If your doctor does not believe that a scan of your back is necessary it is likely to be because:

- You are unlikely to have a serious underlying condition. While back pain can be very painful and disabling, in more than 99% of cases the cause is not serious.
- It is common to find changes on scans that are unrelated to your pain. Disc herniations are found in 30% to 40% of adults who do not have back pain. Degenerative changes (or 'arthritis') are found in 40% to 80% of pain free adults, increasing with each decade. These findings may lead to unnecessary further tests or interventions.
- Improvement is expected in almost all cases. Scans may become appropriate if symptoms do not get better as anticipated.

For further information regarding radiation risks of x-rays and scans, go to Imaging Pathways.

Reference: Brinjikji W, Luetmer PH, Comstock B, et al. 2015. *Systematic literature review of imaging features of spinal degeneration in asymptomatic populations,* American Journal of Neuroradiology, 36 (4): 811-816.

For more information

Web: www.sahealth.sa.gov.au/lowbackpain

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