

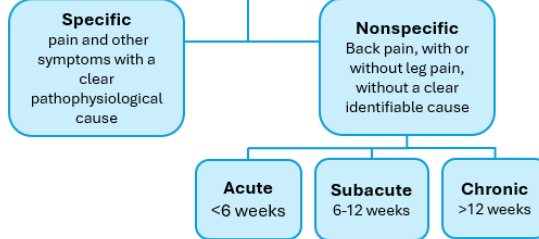
LS Spine X-rays in Nonspecific Back Pain

Low back pain is a common complaint in Urgent Care centers, and most cases are nonspecific low back pain. **Routine LS spine X-rays are not recommended for patients with nonspecific acute low back pain** as they do not improve outcomes or change initial treatment, but they do cause unnecessary radiation exposure, expense, increased door-to-door time, and possible attribution of symptoms to incidental findings.

Reasons against LS spine X-rays in acute, nonspecific low back pain

- Unnecessary exposure to radiation
- No change to initial management
- No improvement to outcomes
- Possible attribution of symptoms to incidental findings
- Increased healthcare costs with no benefit to patients

Types of Low Back Pain



It is important to be aware that when choosing lumbar spine X-rays, the radiation dose is higher than with other X-ray exams.

Procedure	Effective Dose (mSv)	As compared to radiation in a CXR	As compared to radiation from a cross-country flight
X-rays Extremity	0.001	100x less radiation	1/30th of a flight
X-rays Chest	0.1	-	3x a flight
X-rays Abdomen	0.7	7x greater radiation	23x a flight
X-rays Lumbar Spine	1.5	15x greater radiation	50x a flight
CT Chest	7	70x greater radiation	230x a flight

Nonspecific low back pain is usually diagnosed by excluding specific causes through history and physical exam. In general, when evaluating a presentation of acute, nonspecific low back pain, please consider these red flags:

History

- Trauma
 - High velocity
 - Low velocity with additional risk factors including osteoporosis, chronic steroid use, or advanced age
- History of cancer with a clinical suspicion for metastasis or recurrence
- Parenteral drug use or indwelling catheter suggesting possible spinal infection

Exam

- Cauda equina syndrome or other serious neurological deficits
- Pulsatile abdominal mass

Advanced imaging and/or a higher level of care will often be required if a patient presents with these findings

Clinical decision-making should incorporate both the presence and absence of red flags and emphasize the importance of accurate, high-quality history and physical exams. Scan to learn more.

