Back Pain — Child

Child. Back pain with none of the following clinical red flags: constant pain, night pain, radicular pain, pain lasting >4 weeks, abnormal neurologic examination. Initial imaging evaluation.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>RRL</th>
<th>Panel Rating</th>
<th>Group Median Rating</th>
<th>Final Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray spine area of interest</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>Varies</td>
<td>2</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>CT spine area of interest without IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>Varies Varies</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>CT spine area of interest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>Varies Varies</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>CT spine area of interest with IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>Varies Varies</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>MRI complete spine without IV contrast</td>
<td>Usually not appropriate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>MRI complete spine with IV contrast</td>
<td>Usually not appropriate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>X-ray myelography and post myelography CT complete spine</td>
<td>Usually not appropriate</td>
<td>3-10 mSv</td>
<td>[ped]</td>
<td>1</td>
<td>n/a</td>
<td>0 0 0 0 0 0 0 0 0</td>
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<tr>
<td>MRI complete spine without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<td>n/a</td>
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### References

#### Study Quality

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Quality Level</th>
<th>References</th>
<th>Study Quality</th>
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</thead>
<tbody>
<tr>
<td><strong>Tc-99m bone scan whole body with SPECT complete spine</strong></td>
<td>Usually not appropriate</td>
<td>1</td>
<td>☢☢☢ 1-10 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
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<tr>
<td><strong>Variant 2:</strong> Child. Back pain with 1 or more of the following clinical red flags: constant pain, night pain, radicular pain, pain lasting &gt;4 weeks, abnormal neurologic examination. Initial imaging evaluation.**</td>
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<tr>
<td>X-ray spine area of interest</td>
<td>Usually appropriate</td>
<td>8</td>
<td>Varies Varies Varies</td>
</tr>
<tr>
<td>CT spine area of interest without IV contrast</td>
<td>Usually not appropriate</td>
<td>3</td>
<td>Varies Varies Varies</td>
</tr>
<tr>
<td>CT spine area of interest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>1</td>
<td>Varies Varies Varies</td>
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<td>Usually not appropriate</td>
<td>2</td>
<td>Varies Varies Varies</td>
</tr>
<tr>
<td>MRI complete spine without IV contrast</td>
<td>May be appropriate</td>
<td>5</td>
<td>O 0 mSv O 0 mSv [ped]</td>
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<tr>
<td>MRI complete spine without and with IV contrast</td>
<td>May be appropriate</td>
<td>4</td>
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<td>1</td>
<td>O 0 mSv O 0 mSv [ped]</td>
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### Variant 3:

Child. Back pain with 1 or more of the following clinical red flags: constant pain, night pain, radicular pain, pain lasting >4 weeks, abnormal neurologic examination. Negative radiographs.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness</th>
<th>Dose (mSv)</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray myelography and post myelography CT complete spine</td>
<td>Usually not appropriate</td>
<td>3-10 mSv [ped]</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Tc-99m bone scan whole body with SPECT complete spine</td>
<td>Usually not appropriate</td>
<td>1-10 mSv (ped)</td>
<td>2</td>
<td>n/a</td>
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<tr>
<td>CT spine area of interest without IV contrast</td>
<td>May be appropriate</td>
<td>Varies</td>
<td>5</td>
<td>n/a</td>
</tr>
<tr>
<td>CT spine area of interest without and with IV contrast</td>
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<td>Varies</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>CT spine area of interest with IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>MRI complete spine without IV contrast</td>
<td>Usually appropriate</td>
<td>0 mSv (ped)</td>
<td>8</td>
<td>n/a</td>
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<tr>
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<td>0 mSv (ped)</td>
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<td>n/a</td>
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<td>MRI complete spine with IV contrast</td>
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<td>0 mSv (ped)</td>
<td>1</td>
<td>n/a</td>
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<tr>
<td>X-ray myelography and post myelography CT complete spine</td>
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<td>3-10 mSv [ped]</td>
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<td>n/a</td>
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<tr>
<td>Study</td>
<td>References</td>
<td>Study Quality</td>
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<tr>
<td>-------</td>
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<td>---------------</td>
<td></td>
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<tr>
<td>Tc-99m bone scan whole body with SPECT complete spine</td>
<td>May be appropriate</td>
<td>☢☢☢ 1-10 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
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<tr>
<td>CT spine area of interest without IV contrast</td>
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<td>CT spine area of interest without and with IV contrast</td>
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<td>MRI complete spine without IV contrast</td>
<td>Usually appropriate</td>
<td>O 0 mSv O 0 mSv [ped]</td>
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<tr>
<td>MRI complete spine without and with IV contrast</td>
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<tr>
<td>MRI complete spine with IV contrast</td>
<td>Usually not appropriate</td>
<td>O 0 mSv O 0 mSv [ped]</td>
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</table>

**Variant 4:**

Child. Back pain with 1 or more of the following clinical red flags: constant pain, night pain, radicular pain, pain lasting >4 weeks, abnormal neurologic examination. Positive radiographs.
### Tc-99m bone scan whole body with SPECT complete spine

May be appropriate

<table>
<thead>
<tr>
<th>Radiation Dose</th>
<th>Study Quality</th>
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</thead>
<tbody>
<tr>
<td>☢☢☢ 1-10 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
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### Variant 5:

**Child. Chronic back pain associated with overuse. Mechanical back pain.**

#### X-ray spine area of interest

<table>
<thead>
<tr>
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<td>Varies</td>
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#### CT spine area of interest without IV contrast

May be appropriate

<table>
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<tr>
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<th>Study Quality</th>
</tr>
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<tbody>
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#### CT spine area of interest without and with IV contrast

Usually not appropriate

<table>
<thead>
<tr>
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<th>Study Quality</th>
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#### CT spine area of interest with IV contrast

Usually not appropriate

<table>
<thead>
<tr>
<th>Radiation Dose</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies</td>
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#### X-ray myelography and post myelography CT complete spine

<table>
<thead>
<tr>
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#### MRI spine area of interest without IV contrast

Usually appropriate

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<th>Radiation Dose</th>
<th>Study Quality</th>
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#### MRI spine area of interest without and with IV contrast

<table>
<thead>
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<th>Radiation Dose</th>
<th>Study Quality</th>
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<tbody>
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<td>O 0 mSv O 0 mSv [ped]</td>
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#### Tc-99m bone scan whole body with SPECT complete spine

May be appropriate

<table>
<thead>
<tr>
<th>Radiation Dose</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>☢☢☢ 1-10 mSv ☢☢☢☢ 3-10 mSv [ped]</td>
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### MRI spine area of interest with IV contrast

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI spine area of interest with IV contrast</td>
<td>Usually not appropriate</td>
<td>0 0 mSv [ped]</td>
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### CT spine area of interest without IV contrast

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
</tr>
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<tbody>
<tr>
<td>CT spine area of interest without IV contrast</td>
<td>May be appropriate</td>
<td>Varies Varies Varies</td>
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### CT spine area of interest with IV contrast

<table>
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<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
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</thead>
<tbody>
<tr>
<td>CT spine area of interest with IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies Varies Varies</td>
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### MRI complete spine without IV contrast

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
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<tr>
<td>MRI complete spine without IV contrast</td>
<td>May be appropriate</td>
<td>O 0 mSv [ped]</td>
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### MRI complete spine without and with IV contrast

<table>
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<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI complete spine with IV contrast</td>
<td>Usually appropriate</td>
<td>O 0 mSv [ped]</td>
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<td>n/a</td>
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### X-ray myelography and post myelography CT complete spine

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
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<tbody>
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<td>X-ray myelography and post myelography CT complete spine</td>
<td>Usually not appropriate</td>
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### X-ray complete spine

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
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<td>X-ray complete spine</td>
<td>Usually appropriate</td>
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### Tc-99m bone scan whole body with SPECT complete spine

<table>
<thead>
<tr>
<th>Method</th>
<th>Appropriateness</th>
<th>Dose (Sv) [ped]</th>
<th>References</th>
<th>Study Quality</th>
</tr>
</thead>
<tbody>
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<td>1-10 mSv [ped]</td>
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<td>n/a</td>
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<tr>
<td>CT spine area of interest without and with IV contrast</td>
<td>Usually not appropriate</td>
<td>Varies</td>
<td>Varies</td>
<td>Varies</td>
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</table>

| References       | Study Quality       |
Please refer to the supporting documentation for a more complete discussion of the concepts and their definitions below.

**Final Tabulations:** A histogram of the number of panel members who rated the recommendation as noted in the column heading (ie, 1, 2, 3, …etc.)

**Disagree:** The variation of the individual ratings from the median rating indicates panel disagreement on the final recommendation.

**References:** Lists the references associated with the recommendation.

**SQ:** Study Quality (1, 2, 3, 4, Good M or Inadequate M) of the references listed.

**RRL:** Information on the Relative Radiation Level (RRL) designations can be found.