**American College of Radiology**  
**ACR Appropriateness Criteria®**

**Suspected Physical Abuse — Child**

**Variant 1:** Suspected physical abuse. Child 24 months of age. Neurological or visceral injuries not clinically suspected. Initial imaging evaluation.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>Radiography skeletal survey</td>
<td>Usually appropriate</td>
<td></td>
<td>✭✭✭ 1-10 mSv</td>
<td>✭✭✭ 0.3-3 mSv [ped]</td>
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<td></td>
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<td>✭✭✭ 0.3-3 mSv [ped]</td>
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<td>Tc-99m bone scan whole body</td>
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<td>✭✭✭✭ 3-10 mSv [ped]</td>
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**Variant 2:** Suspected physical abuse. Child >24 months of age. Neurological or visceral injuries not clinically suspected. Initial imaging evaluation.
<table>
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<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
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<td>☢☢☢ 0.3-3 mSv [ped]</td>
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<td>O 0 mSv [ped]</td>
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<td>☢☢☢ 3-10 mSv [ped]</td>
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<td>☢☢☢ 3-10 mSv [ped]</td>
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<td>CT head with IV contrast</td>
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**Variant 3:** Child with one or more of the following: neurologic signs or symptoms, apnea, complex skull fracture, other fractures, or injuries highly suspicious for child abuse. Initial imaging evaluation.

<table>
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<th>Procedure</th>
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<th>SOE</th>
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<th>Peds RRL</th>
<th>Rating</th>
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Variant 4:  Child. Suspected physical abuse. Suspected thoracic or abdominopelvic injuries (eg, abdominal skin bruises, distension, tenderness, or elevated liver or pancreatic enzymes). Initial imaging evaluation.
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<th>ped Dose (mSv)</th>
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<th>Nephrotoxicity (ng/L)</th>
<th>Nephropathy (ng/L)</th>
<th>Osteoporosis (ng/L)</th>
<th>Nibleritis (ng/L)</th>
<th>Vasoconstriction (ng/L)</th>
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<tbody>
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<td>☢☢☢ 0.3-3 mSv</td>
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</table>

**Variant 5:** Child 24 months of age. High suspicion for abuse. Negative initial skeletal survey. Follow-up imaging evaluation.
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
<th>Final Tabulations</th>
</tr>
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<tbody>
<tr>
<td>Radiography skeletal survey</td>
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<td>1-10 mSv</td>
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<td>1-10 mSv</td>
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<td>May be appropriate</td>
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<td>1-10 mSv</td>
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<td>O 0 mSv</td>
<td>O 0 mSv [ped]</td>
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<td>CT head without and with IV contrast</td>
<td>Usually not appropriate</td>
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<td>1-10 mSv</td>
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<tr>
<td>CT head with IV contrast</td>
<td>Usually not appropriate</td>
<td>☢☢☢</td>
<td>1-10 mSv</td>
<td>☢☢☢ 0.3-3 mSv [ped]</td>
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</tr>
<tr>
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<td>Usually not appropriate</td>
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<td>1-10 mSv</td>
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<td>Usually not appropriate</td>
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<td>1-10 mSv</td>
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</tbody>
</table>
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 here.