# American College of Radiology
## ACR Appropriateness Criteria®

### Suspected Appendicitis-Child

**Variant 1:** Child. Suspected acute appendicitis, low clinical risk. Initial imaging.

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<td>CT abdomen and pelvis with IV contrast</td>
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<td>May be appropriate</td>
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<td>CT abdomen and pelvis without IV contrast</td>
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References: 55 (24682520) 3

Study Quality: 52 (18082786) 3

Variant 3: Child. Suspected acute appendicitis, high clinical risk. Initial imaging.
### Variant 4:  Child. Suspected acute appendicitis, equivocal or nondiagnostic right lower quadrant ultrasound. Next imaging study.

<table>
<thead>
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<th>Procedure</th>
<th>Appropriateness Category</th>
<th>SOE</th>
<th>Adults RRL</th>
<th>Peds RRL</th>
<th>Rating</th>
<th>Median</th>
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References | Study Quality
--- | ---
51 (16456751) | 3
52 (18082786) | 3

14 (25488354) | 2
38 (15837022) | 2
39 (18074913) | 3
58 (25708690) | 4

## References

1. O 0 mSv
2. O 0 mSv [ped]
3. ☢☢☢ 10-30 mSv
4. ☢☢☢☢ 10-30 mSv [ped]
5. ☢☢ 0.1-1mSv
6. ☢☢ 0.03-0.3 mSv [ped]
| MRI abdomen and pelvis without IV contrast | Usually appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 7 | 7 | 0 | 1 | 1 | 0 | 0 | 4 | 6 | 5 | 1 |
|------------------------------------------|---------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|
| References                               | Study Quality       |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 40 (26458209)                            | 3                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 41 (26901006)                            | Good                |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 48 (27215717)                            | 2                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 71 (23617477)                            | 2                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 72 (24590746)                            | 3                   |        |         |               |   |   |   |   |   |   |   |   |   |   |

| MRI abdomen and pelvis without and with IV contrast | Usually appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 7 | 7 | 0 | 0 | 0 | 1 | 0 | 4 | 8 | 4 | 1 |
|-----------------------------------------------------|---------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|
| References                                           | Study Quality       |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 40 (26458209)                                        | 3                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 41 (26901006)                                        | Good                |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 48 (27215717)                                        | 2                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 71 (23617477)                                        | 2                   |        |         |               |   |   |   |   |   |   |   |   |   |   |
| 72 (24590746)                                        | 3                   |        |         |               |   |   |   |   |   |   |   |   |   |   |

| CT abdomen and pelvis without IV contrast           | May be appropriate (Disagreement) | Expert Opinion | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 5 | 7 | 0 | 2 | 2 | 3 | 1 | 1 | 3 | 6 | 0 |
|-----------------------------------------------------|----------------------------------|----------------|----------------|----------------|---|---|---|---|---|---|---|---|---|---|
| References                                           | Study Quality                   |                |               |               |   |   |   |   |   |   |   |   |   |   |
| 18 (22849662)                                        | 3                               |                |               |               |   |   |   |   |   |   |   |   |   |   |
| 37 (26518583)                                        | 2                               |                |               |               |   |   |   |   |   |   |   |   |   |   |
| 38 (15837022)                                        | 2                               |                |               |               |   |   |   |   |   |   |   |   |   |   |
### References

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<td>51 (16456751)</td>
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</table>

### Study Quality

- **May be appropriate**
- **Limited**
- **Usually not appropriate**
- **O 0 mSv**
- **O 0 mSv [ped]**
- **☢☢☢☢ 10-30 mSv**
- **☢☢☢☢☢ 0.1-1mSv**
- **☢☢ 0.03-0.3 mSv [ped]**

### Study Quality Table

| US abdomen | May be appropriate (Disagreement) | Expert Opinion | O 0 mSv | O 0 mSv [ped] | 5 | 5 | 1 | 2 | 1 | 5 | 6 | 3 | 0 | 0 | 0 |
|------------|-----------------------------------|----------------|--------|--------------|---|---|---|---|---|---|---|---|---|---|
| US abdomen RLQ | May be appropriate | Limited | O 0 mSv | O 0 mSv [ped] | 5 | 5 | 0 | 1 | 2 | 5 | 4 | 5 | 1 | 0 | 0 |

**Variant 5:** Child. Suspected acute appendicitis with clinical suspicion or initial imaging suggestive of complication (eg, abscess, bowel obstruction). Next imaging study.
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<th>Adults RRL</th>
<th>Peds RRL</th>
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References | Study Quality
------ | ------
2 (26810020) | 3
51 (16456751) | 3
Appendix Key
A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

**Appropriateness Category:** The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

**SOE:** Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality:** The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

**RRL:** Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

**Rating:** The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Median:** The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

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

Additional supporting documents about the AC methodology and processes can be found at [www.acr.org/ac](http://www.acr.org/ac).