Chest

LUNGS AND HEART

Patients able to stand

Patients unable to stand but able to sit

Patients lying down, unable to stand or sit

Other additional views
7. Chest lateral decubitus AP or PA, page 12.

RIBS
A Chest PA 1, or a Chest AP 3, or a Chest AP 5, as described above must always be taken first.

Patients able to either stand or sit
   Two views to be taken

Patients lying down, unable to stand or sit

INFANTS WEIGHING UP TO 10–15 kg – LUNGS AND HEART
CHEST 1

CHEST PA  Standing erect  BASIC

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
35×43 cm (14×17 inches)
35×35 cm (14×14 inches)
24×30 cm (10×12 inches) for a child
Use a Right or Left marker

<table>
<thead>
<tr>
<th>Exposure values</th>
<th>kV</th>
<th>mAs average</th>
<th>mAs range</th>
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<tbody>
<tr>
<td>Adult</td>
<td>120</td>
<td>2–2.5</td>
<td>1–12</td>
</tr>
<tr>
<td>Child</td>
<td>90</td>
<td>1.6–2</td>
<td>1–4</td>
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1. Bring in the patient, decide the cassette format and put the cassette in the cassette holder.
Collimate to that format.

2. Position the patient, make sure the patient's shoulders are well pressed forward.
Collimate further, if possible.

3. Tell the patient to take a deep breath and hold the breath in.

4. Expose.

5. Tell the patient to breathe normally.

For INFANTS weighing less than 10 and SMALL CHILDREN 15 kg, see CHEST 10 or CHEST 11.

Comments

The top of the lungs must be visible.
The exposure shall be made at full inspiration; rib 10 shall be visible posteriorly above the diaphragm and rib 6 anteriorly.
Make sure that the lower parts of the diaphragm is visible on both sides, including both costophrenic angles.
The lung structure and the spine must be discernible (seen) behind the heart.
CHEST LATERAL  Standing erect – left (or right)  BASIC

Cassette speed
Cassette with screen-film combination. nominal speed 200 in the cassette holder

Cassette size
35×43 cm (14×17 inches)
35×35 cm (14×14 inches)
24×30 cm (10×12 inches) for a child

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<td>4–5</td>
<td>2–16</td>
</tr>
<tr>
<td>Child</td>
<td>90</td>
<td>2.5</td>
<td>1–5</td>
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1. Bring in the patient. decide the cassette format and put the cassette in the cassette holder. Collimate to that format.

2. Position the patient, normally left lateral as shown. The patient should be upright or leaning slightly forwards, not backwards. Use the cassette holder arm for support. Collimate further, if possible.

3. Tell the patient to take a deep breath and hold the breath in.

4. Expose.

5. Tell the patient to breathe normally.

Comments
The top of the lungs must be visible.
Straight lateral view of the sternum
Make sure that the lower parts of the diaphragm is visible.
CHEST AP  Sitting erect
on a stool or trolley – only used when the patient is unable to stand

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
35×43 cm (14×17 inches)
35×35 cm (14×14 inches)
24×30 cm (10×12 inches) for a child
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1. Bring in the patient, decide the cassette format and put the cassette in the cassette holder. Collimate to that format.
2. Position the patient, make sure the patient is sitting erect! Collimate further, if possible.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.

For INFANTS weighing less than 10 and SMALL CHILDREN 15 kg, see CHEST 10 or CHEST 11.

Comments
The top of the lungs must be visible.
The exposure shall be made at full inspiration.
Make sure that the lower parts of the diaphragm is visible on both sides, including both costophrenic angles.
The lung structure and the spine must be discernible (seen) behind the heart.
CHEST LATERAL  Sitting erect – left (or right)
on a stool or trolley – only used when the patient is unable to stand

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
35×43 cm (14×17 inches)
35×35 cm (14×14 inches)
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1. Bring in the patient, decide the cassette format and put the cassette in the cassette holder. Collimate to that format.
2. Position the patient. The patient should be upright or leaning slightly forwards, not backwards. Use the cassette holder arm for support. Collimate further, if possible.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.

Comments
The top of the lungs must be visible.
Straight lateral view of the sternum
Make sure that the lower parts of the diaphragm is visible.
CHEST AP  Supine

**Cassette speed**
Cassette with screen-film combination, nominal speed 200 in the cassette holder.

**Cassette size**
- 35x43 cm (14x17 inches)
- 35x35 cm (14x14 inches)
- 24x30 cm (10x12 inches) for a child

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1. Bring in the patient, decide the cassette format and put the cassette in the cassette holder. Collimate to that format.
2. Position the patient. Put a small pillow under the head. Centre. Collimate further, if possible.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.

**Comments**

The top of the lungs must be visible.
The exposure shall be made at full inspiration.

Make sure that the lower parts of the diaphragm is visible on both sides, including both costophrenic angles.

The lung structure and the spine must be discernible (seen) behind the heart.
**CHEST APICAL (LORDOTIC) AP**

**Sitting reclining backwards**  
**ADDITIONAL**

**Cassette speed**
Cassette with screen-film combination, nominal speed 200 in the cassette holder

**Cassette size**
24×30 cm (10×12 inches)
Use a **Right** or **Left** marker

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1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Position the patient as shown. Centre.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.
CHEST LATERAL DECUBITUS  Lying on the right (PA) or left (AP) side – horizontal beam
ADDITIONAL views used to detect fluid in the pleural sac

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
24×30 cm (10×12 inches)
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<td>120</td>
<td>2</td>
<td>1.6–3.2</td>
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1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Position the patient, as shown. The patient must lie on the side where the fluid is suspected, close to the cassette holder on 2 hard pillows (with a distance). Centre.
3. Tell the patient to breathe OUT and hold the breath OUT.
4. Expose.
5. Tell the patient to breathe normally.

Position for RIGHT lateral decubitus

Position for LEFT lateral decubitus
RIBS OBLIQUE AP  Standing or sitting erect – right and left oblique  BASIC
CHEST 1 or CHEST 3 or CHEST 5 must always be taken first

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
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<tr>
<td>Adult</td>
<td>70</td>
<td>20–25</td>
<td>10–125</td>
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1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Position the patient as shown. IF THE PATIENT IS UNABLE TO RAISE HIS ARMS, THE ARMS SHOULD BE HELD OUT FROM THE BODY. Collimate further, if possible. Centre.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.

Left oblique
Right oblique
RIBS OBLIQUE AP  Supine – right and left oblique
CHEST 1 or CHEST 3 or CHEST 5 must always be taken first

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
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<td>70</td>
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1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Position the patient as shown. SUPPORT THE PATIENT WITH A PILLOW UNDER THE NORMAL SIDE. Keep the UPPER arm as high as possible. Collimate further, if possible. Centre.
3. Tell the patient to take a deep breath and hold the breath in.
4. Expose.
5. Tell the patient to breathe normally.
CHEST AP  Erect  BASIC
Infants and small children weighing up to 15 kg, hanging by the upper arms

Cassette speed
Cassette with screen-film combination, nominal speed 200 in the cassette holder

Cassette size
24×30 cm (10×12 inches)
Use a Right or Left marker

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<tbody>
<tr>
<td>Child</td>
<td>90</td>
<td>1.25–2.5</td>
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</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Position the patient. The child is held hanging by the upper arms (if possible, its feet can be supported by a stool or the floor or by another person holding the thighs) with its back resting against the front of the cassette holder.
3. THE PERSON(S) HOLDING THE CHILD, preferably one of the parents, MUST WEAR A LEAD APRON and, whenever possible, LEAD GLOVES.
4. Centre between the nipples. Collimate further, if possible.
5. Expose when the infant is not moving, preferably in INSPIRATION.

Comment
The person holding the child must wear a lead apron, and, whenever possible, lead gloves.
CHEST AP – infant weighing up to 10 kg

**Cassette speed**
Cassette with screen-film combination, nominal speed 200 on the cassette holder

**Cassette size**
18×24 cm (8×10 inches) Use a Right or Left marker

<table>
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<tbody>
<tr>
<td>Child</td>
<td>70</td>
<td>1.6–3.2</td>
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**Supine**

1. Centre the cassette on top of the cassette holder. Collimate to that format.
2. Lie the infant on its back on the cassette. THE INFANTS HEAD AND LEGS MUST BE SUPPORTED. THOSE SUPPORTING, preferably the infant’s parents, MUST WEAR LEAD APRONS, and, whenever possible, LEAD GLOVES.
3. Centre between the nipples. Collimate further, if possible.
4. Expose when the infant is not moving, preferably in INSPIRATION.

**Comments**

The persons holding the child must wear lead aprons and, whenever possible, lead gloves.

Use a protective lead strip over the infant’s pelvic area.