Head

SKULL
X-rays of the skull are always taken with the patient lying down.
1. Skull PA, page 34.
   (Do not use for infants or children – use HEAD 2)
   NEVER USE this position when there is a possibility that the facial bones
   may be fractured or when the patient is unconscious.
2. Skull AP, page 35.
3. Skull (occiput) semiaxial (Towne's projection), page 36.

SINUSES, FACE, AND NOSE
These examinations are unreliable under the age of 7 years

Patient sitting
5. Sinuses and face semiaxial, or nose PA, page 38.
7. Sinuses, face, or nose lateral, page 40.

Patient lying down, unable to sit
   Sinuses face, or nose AP – use Skull AP (HEAD 2, page 35)
   Sinuses, face, or nose lateral – use Skull lateral (HEAD 4, page 37)

MANDIBLE
Patient sitting
9. Mandible oblique lateral, page 42.

Patient lying down, unable to sit
10. Mandible AP, page 43.
11. Mandible oblique lateral, page 44.
SKULL PA  Prone – vertical beam angled 20° as shown  BASIC

Never use when there is a possibility that the facial bones may be fractured or when the patient is unconscious. Use HEAD 3 instead.

Cassette speed
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

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

<table>
<thead>
<tr>
<th>Exposure values</th>
<th>mAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 kV</td>
<td></td>
</tr>
<tr>
<td>“blue” system</td>
<td>200</td>
</tr>
<tr>
<td>“green” system</td>
<td>400</td>
</tr>
<tr>
<td>Average</td>
<td>100</td>
</tr>
<tr>
<td>Range</td>
<td>63–125</td>
</tr>
<tr>
<td></td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>32–63</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, earclips, hairgrips, or anything from the hair. Mattress for the body. Place hands under the chest. Place the forehead and the nose on the stretcher-table.
3. Center and collimate further, if possible.
4. Expose.

Vertical ear–eye line
**SKULL AP**  Supine – vertical beam angled 20° as shown  ADDITIONAL
Use when the patient cannot be X-rayed in a prone position.

**Cassette speed**
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

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

<table>
<thead>
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<td>70 kV</td>
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<tr>
<td>&quot;blue&quot; system</td>
<td>200</td>
</tr>
<tr>
<td>&quot;green&quot; system</td>
<td>400</td>
</tr>
<tr>
<td>Average</td>
<td>100</td>
</tr>
<tr>
<td>Range</td>
<td>63–125</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, earclips, hairgrips, or anything from the hair.
3. Mattress. The patient's head should lie flat raised on a thin radiolucent (e.g., foam rubber) pad. Do not use a pillow.
4. Center to the root of the nose between the eyes. Collimate further, if possible.
5. Expose.
SKULL (OCCIPUT) SEMIAXIAL (TOWNE’S PROJECTION)  
angled 30° as shown  ADDITIONAL

Cassette speed
Cassette with screen-film combination, 
nominal speed 200/400 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>70 kV</td>
<td></td>
</tr>
<tr>
<td>“blue” system</td>
<td>200</td>
</tr>
<tr>
<td>“green” system</td>
<td>400</td>
</tr>
<tr>
<td>Average</td>
<td>80</td>
</tr>
<tr>
<td>Range</td>
<td>63–100</td>
</tr>
<tr>
<td></td>
<td>32–50</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the 
cassette holder. Collimate to the format.
2. Remove dentures, earclips, hairgrips, or any-
things from the hair.
3. Mattress. The patient’s head should lie 
flat raised on a thin radiolucent (e.g. foam 
rubber) pad. Do not use a regular pillow.
4. Center to the top of the head 7–8 cm from 
the root of the nose.
5. Collimate further, if possible.

Vertical ear–eye line
SKULL LATERAL  Supine – horizontal beam  BASIC

Cassette speed
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

Cassette size
24×30 cm (10×12 inches)
Use a Right or Left marker to denote which side of the head that is close to the cassette

<table>
<thead>
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<td>70 kV</td>
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<tr>
<td>“blue” system</td>
<td>200</td>
</tr>
<tr>
<td>“green” system</td>
<td>400</td>
</tr>
<tr>
<td>Average</td>
<td>32</td>
</tr>
<tr>
<td>Range</td>
<td>25–40</td>
</tr>
<tr>
<td></td>
<td>12.5–20</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, earclips, hairgrips, or anything from the hair.
3. Mattress. The patient’s head should lie flat raised on a thin radiolucent (e.g. foam rubber) pad. Do not use a regular pillow.
4. The line from the outer corner of the eye to the ear opening shall be at right angle to the examination table.
5. Center as shown.
   Collimate further, if possible.

Front and back of skull must be visible
SINUSES and FACE SEMIAXIAL or NOSE PA  Sitting erect  BASIC
If the patient is unable to sit, use the supine position (HEAD 3).
Use this view when only one view of the sinuses is requested.
Under the age of 7 years x-ray of the sinuses is unreliable for infection.

Cassette speed
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

Cassette size
18x24 cm (8x10 inches) for sinus
24x30 cm (10x12 inches) for face
Use a Right or Left marker

<table>
<thead>
<tr>
<th>Exposure values</th>
<th>mAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 kV</td>
<td>“blue” system 200</td>
</tr>
<tr>
<td>Average</td>
<td>63</td>
</tr>
<tr>
<td>Range</td>
<td>50-80</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, or anything from the hair.
3. Position the patient. Tell the patient to open the mouth as widely as possible and place the chin against the cassette holder. Tilt the patient’s head back 45°.
4. Center as shown. Collimate further, if possible.
5. Expose.

45°-line – ear opening to lateral corner of the eye
Horizontal line – ear opening to mouth
**SINUSES and FACE PA** Sitting erect  BASIC (face)  ADDITIONAL (sinuses)

If ONLY ONE VIEW of the sinuses is requested by the doctor, use HEAD 5

**Cassette speed**
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

**Cassette size**
18×24 cm (8×10 inches) for sinus
24×30 cm (10×12 inches) for face
Use a Right or Left marker

<table>
<thead>
<tr>
<th>Exposure values</th>
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</thead>
<tbody>
<tr>
<td>80 kV “blue” system</td>
<td>200</td>
</tr>
<tr>
<td>400/450</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>50</td>
</tr>
<tr>
<td>Range</td>
<td>40-63</td>
</tr>
<tr>
<td></td>
<td>16-25</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, or anything from the hair.
3. Position the patient. The line between the lower bony edge of the eye and the ear opening must be at a right angle to the cassette holder.
4. Center corresponding to the root of the nose between the eyes. Collimate further, if possible.
5. Expose.

Horizontal line between the lower bony edge of the eye and the ear
SINUSES, FACE or NOSE LATERAL  Sitting erect
BASIC (nose)    ADDITIONAL (sinuses and face)
If the patient is unable to sit, use the supine position (HEAD 4).
Do not use for children under 7 years of age, except for trauma or suspected tumors.

Cassette speed
Cassette with screen-film combination, nominal speed 100/200/400 in the cassette holder

Cassette size
18×24 cm (8×10 inches) for sinus
24×30 cm (10×12 inches) for face

<table>
<thead>
<tr>
<th>Exposure values</th>
<th>mAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 kV “blue” system 200</td>
<td>“green” system 400/450</td>
</tr>
<tr>
<td>Average</td>
<td>12.5 5</td>
</tr>
<tr>
<td>Nose 53 kV “blue” system 200</td>
<td>“green” system 100/63</td>
</tr>
<tr>
<td>Average</td>
<td>4 8</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, earclips, hairgrips, or anything from the hair.
3. Position the right side of the patient’s head next to the cassette holder.
4. Center as shown.
   Collimate further, if possible.
5. Expose.
MANDIBLE PA  Sitting erect  BASIC

Cassette speed
Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

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

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<th>“green” system 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 kV</td>
<td>63 mAs</td>
<td>32 mAs</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, or anything from the hair.
3. Tell the patient to open the mouth as widely as possible and place the forehead and nose against the cassette holder. The line from the outer corner of the eye to the ear opening shall be at right angle to the cassette holder.
4. Center as shown.
   Collimate further, if possible.
5. Expose.
MANDIBLE OBLIQUE LATERAL

angled 15° as shown BASIC

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Cassette with screen-film combination, nominal speed 200/400 in the cassette holder

Cassette size
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<tbody>
<tr>
<td>70 kV</td>
<td>12.5 mAs</td>
<td>6.3 mAs</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, or anything from the hair.
3. Angle the X-ray tube 15° as shown.
4. Ask the patient to sit with the side of the head to be X-rayed nearest to the cassette holder. (Right side shown).
5. Tilt the head inwards 15° as shown, so that the head and shoulder rest against the cassette holder.
6. Center as shown.
   Collimate further, if possible.
7. Expose.
MANDIBLE AP  Supine – vertical beam angled 30° as shown  ADDITIONAL

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<td>32 mAs</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, or anything from the hair.
3. Tell the patient to open the mouth as widely as possible. If the patient is unable to keep the mouth open place a wedge of soft wood or cork between upper and lower row of teeth or gums. The line between the lower bony edge of the eye and the ear opening must be at a right angle to the the examination table.
4. Center as shown.
   Collimate further, if possible.
5. Expose. Remove wedge of cork.
**MANDIBLE OBLIQUE LATERAL**

Lying on the side (right or left) – vertical beam angled 15° as shown  
**ADDITIONAL**

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<tbody>
<tr>
<td>70 kV</td>
<td>12.5 mAs</td>
<td>6.3 mAs</td>
</tr>
</tbody>
</table>

1. Bring in the patient, put the cassette in the cassette holder. Collimate to the format.
2. Remove dentures, hairgrips, earrings, or anything from the hair.
3. Angle the X-ray tube 15° as shown.
4. Position the patient with the side to be X-rayed nearest to the table. (Right side shown).
5. Tilt the patient’s head 15° as shown.
6. Center as shown.
   Collimate further, if possible.
7. Expose.