# Bath Ankylosing Spondylitis Metrology Index

**BASMI** is a combined index to assess the spinal mobility in patients with ankylosing spondylitis.

**Name:** __________________________________________________________________________

**Date:** _________________

### Lateral lumbar flexion

Patient stands with heels and buttocks touching the wall, knees straight, shoulders back, hands by the side. The patient is then asked to bend to the right side as far as possible without lifting the left foot/heel or flexing the right knee, and maintaining a straight posture with heels, buttocks, and shoulders against the wall. The distance from the third fingertip to the floor when patient bends to the side, is subtracted from the distance when patient stands upright. The manoeuvre is repeated on the left side.

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<th>Assessment:</th>
<th>&gt; 20</th>
<th>18–20</th>
<th>15.9–18.9</th>
<th>13.8–15.8</th>
<th>11.7–13.79</th>
<th>9.6–11.6</th>
<th>7.5–9.5</th>
<th>5.4–7.4</th>
<th>3.3–5.3</th>
<th>1.2–3.2</th>
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### Tragus-to-wall distance

Maintain same starting position as above. Ensure head in as neutral position (anatomical alignment) as possible, chin drawn in as far as possible. Measure distance between tragus of the ear and wall on both sides, using a rigid ruler. Ensure no cervical extension, rotation, flexion or side flexion occurs.

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### Lumbar flexion (modified Schober)

With the patient standing upright, place a mark at the lumbosacral junction (at the level of the dimples of Venus on both sides). Further marks are placed 5 cm below and 10 cm above. Measure the distraction of these two marks when the patient bends forward as far as possible, keeping the knees straight.

### Maximal intermalleolar distance

Patient supine on the floor or a wide plinth, with the knees straight and the feet pointing straight up. Patient is asked to separate legs along the resting surface as far as possible. Distance between medial malleoli is measured.

### Cervical rotation

Patient supine on plinth, head in neutral position, forehead horizontal (if necessary head on pillow or foam block to allow this, must be documented for future reassessments). Gravity goniometer placed centrally on the forehead. Patient rotates head as far as possible, keeping shoulders still, ensure no neck flexion or side flexion occurs.

### Remark:

In the literature (Jenkinson et al: J Rheumatol 1994;21:1694–1698 and Jones et al: J Rheumatol 1995;22:1609) two different BASMI definitions have been published where the same measurement results lead to different BASMI values. The above is based on the newer definition of 1995 with scores 0 to 10 for each component.