Ankylosing spondylitis (Bechterew’s disease)

Causes, development and changes to the spine [1, 2]

**A**

**Autoimmune process?**
**Triggered by an infection?**

Disease usually begins with inflammatory changes in the lower spine and severe low back pain

Ossification of the fibre rings of the intervertebral disc + capsule and ligament calcification

Ossifications fuse (syndesmophytes)

Highly variable, generally episodic course!

Normal

Ankylosing spondylitis

Syndesmophytes

Inflammation

Loss of S shape

Possible consequences for body posture [1, 2]

**B**

Without treatment, characteristic changes in body posture arise from the damage

Conservative treatment [3]

**C**

Anti-inflammatory painkillers

TNF inhibitors

Physiotherapy

Surgical procedure [3]

**D**

Straightening osteotomy

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Ankylosing spondylitis (Bechterew’s disease)

A  Causes, development and changes to the spine [1, 2]

Ankylosing spondylitis is a chronic inflammatory rheumatic disease with pain and stiffness, principally in the area of the spine and pelvis.

As with other rheumatic diseases, faulty autoimmune control is assumed to be the cause (the immune system is targeted against the body’s own tissues), which might be triggered by viruses or bacteria.

The disease generally begins with inflammatory changes in the lower spine, inflammation of the tendon attachments and severe low back pain.

Ossification of the fibre rings of the intervertebral discs and the tissue close to the discs is characteristic. The ossification initially develops into fine outgrowths at the edges of the spine, which subsequently grow towards each other and then fuse (syndesmophytes). In the final stage the whole spine stiffens in the shape of a bamboo pole.

B  Possible consequences for body posture [1, 2]

Body posture changes without treatment: the lordosis (forward curvature) of the lumbar spine disappears, and the kyphosis (backward curvature) of the thoracic spine becomes stronger. The typical round back may develop. This can now be largely prevented by early effective treatment.

C  Conservative treatment [3]

Anti-inflammatory painkillers (non-steroidal anti-inflammatory drugs, coxibs) are effective against pain and inflammation.

TNF inhibitors suppress the messenger substance tumour necrosis factor (TNF), which is involved in control of the immune system.

Physiotherapeutic measures, in particular stretching exercises and strengthening of the muscles through movement, are crucial in keeping the joints mobile for as long as possible and counteracting the development of a round back.

D  Surgical procedures [3]

Straightening osteotomies to correct kyphosis are indicated if there is stiffening with severe misalignment.