



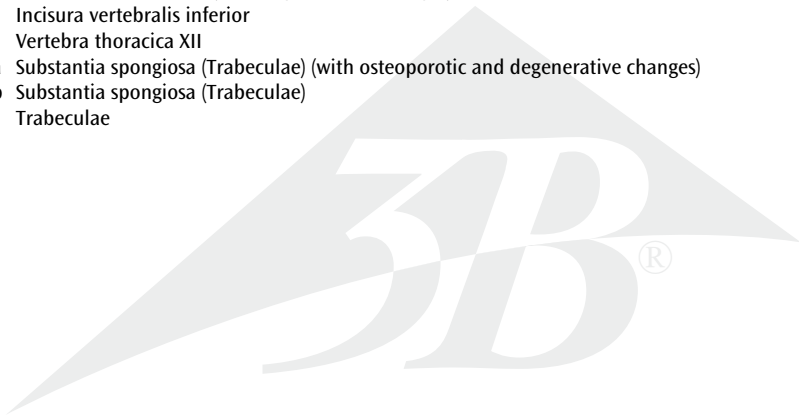
...going one step further



A95

Latin

- 1 Processus spinosus
- 2 Processus transversus
- 3 Processus articularis superior
- 4 Facies articularis superior
- 5 Fovea costalis
- 6 Facies articularis inferior
- 7 Corpus vertebrae
- 8a Facies intervertebralis superior
- 8b Facies intervertebralis superior (with osteoporotic and degenerative changes)
- 9 Vertebra thoracica XI
- 10 Osteophytes [engl.] (degenerative change)
- 11a Discus intervertebralis
- 11b Discus intervertebralis (with degenerative changes)
- 12 Incisura vertebralis inferior
- 13 Vertebra thoracica XII
- 14a Substantia spongiosa (Trabeculae) (with osteoporotic and degenerative changes)
- 14b Substantia spongiosa (Trabeculae)
- 15 Trabeculae



Osteoporosis Model

English

Impressive didactic model for comparing osteoporotic and normal thoracic vertebrae. Ideal for medical studies and patient consultation. The 11th and 12th thoracic vertebrae are shown.

Reproductions of sequential osteoporotic thoracic vertebrae with narrower intervertebral disc are located on the left of the stand. The upper vertebra is divided in the middle. The magnetically attached vertebral half can be removed easily to show the cut surfaces. This allows clear visualisation of the fractured upper part of the vertebral body caused by sintering, i.e. collapse of the bony substance in the course and as a result of osteoporosis. Degenerative changes in the bone, manifested as osteophytes, are also identifiable.

For comparison, reproductions of two corresponding healthy vertebrae with intervertebral disc are provided on the right side. One half of the upper vertebral body is also magnetically attached and can be removed.

Each set of vertebrae also has a sticker on the stand showing two 3D micro CT images obtained from bone biopsies. These illustrate the microarchitecture of the osteoporotic bone, which has a lower bone density compared to healthy bone.

A-1 Lateral view of a healthy 11th thoracic vertebra with below adjacent intervertebral disc and 12th thoracic vertebra (reduced)

A-2 Lateral view of an osteoporotic 11th thoracic vertebra with degenerative changes with below adjacent intervertebral disc and 12th thoracic vertebra (reduced)

B-1 Midsagittal section through body of osteoporotic 11th thoracic vertebra with degenerative changes

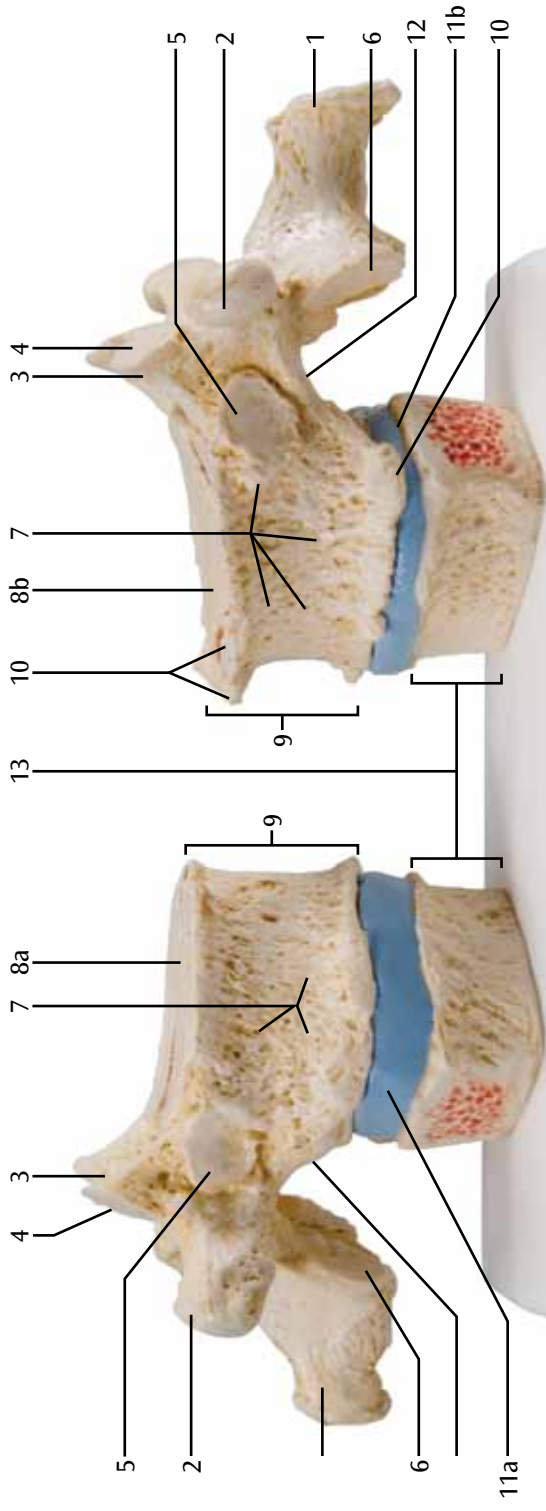
B-2 Midsagittal section through body of healthy 11th thoracic vertebra

C-1 High resolution micro-CT 3D-image reconstruction: biopsy of osteoporotic trabecular bone showing reduced density and change of architecture

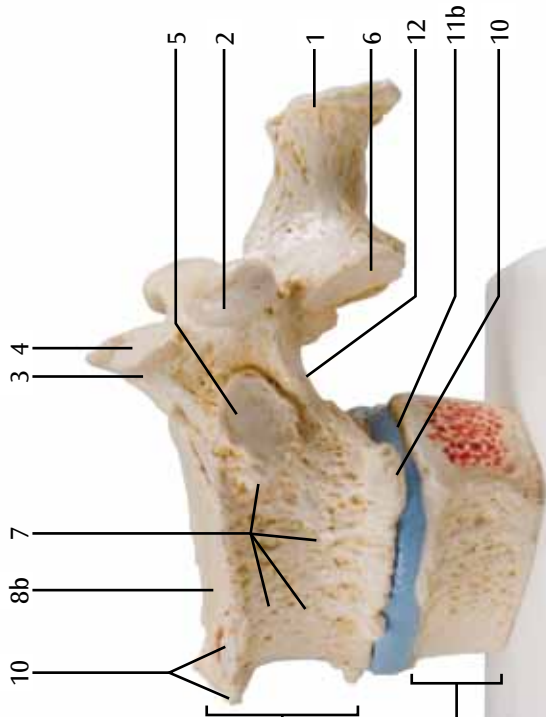
C-2 High resolution micro-CT 3D-image reconstruction: biopsy of healthy trabecular bone

- 1 Spinous process
- 2 Transverse process
- 3 Superior articular process
- 4 Superior articular facet
- 5 Costal facet
- 6 Inferior articular facet
- 7 Body of vertebra
- 8a Superior intervertebral surface of body of vertebra
- 8b Superior intervertebral surface of body of vertebra (with osteoporotic and degenerative changes)
- 9 11th thoracic vertebra
- 10 Osteophytes (degenerative change)
- 11a Intervertebral disc
- 11b Intervertebral disc (with degenerative changes)
- 12 Inferior vertebra notch
- 13 12th thoracic vertebra
- 14a Cancellous bone (with osteoporotic and degenerative changes)
- 14b Cancellous bone
- 15 Trabeculae of bone

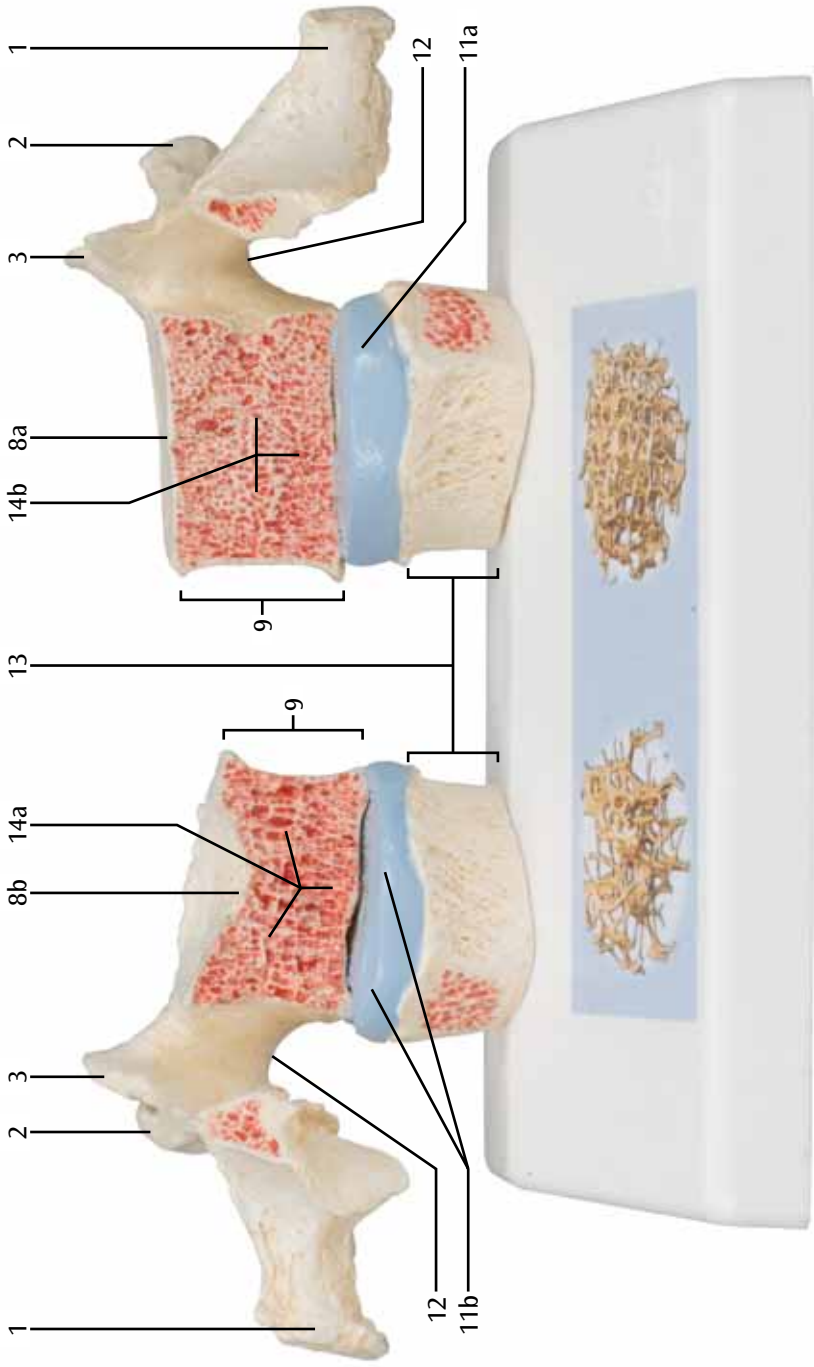
A-1



A-2

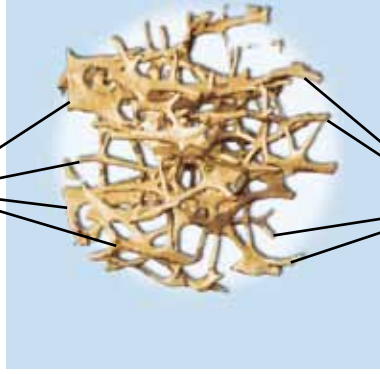


B-1



C-1

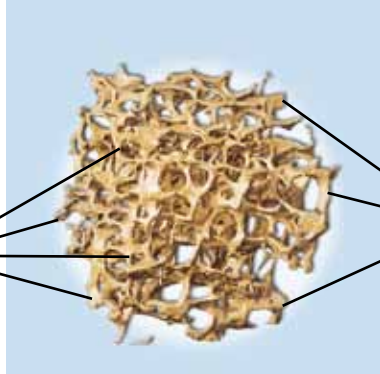
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C-2

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