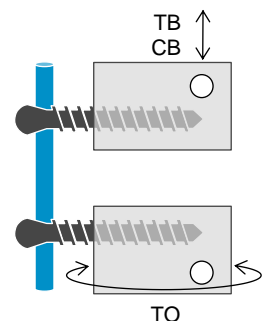


Summary of the most commonly used test methods

Part 1 - Spinal fixation devices

- Internal fixators (screw-rod-systems, transverse connectors, hooks, etc.)
- Anterior spinal plates



- Static compression bending (S-CB)
- Dynamic compression bending (D-CB)
- Static torsion (S-TO)
- Dynamic torsion (D-TO)
- Static tension bending (S-TB)
- Dynamic tension bending (D-TB)

ASTM F1717

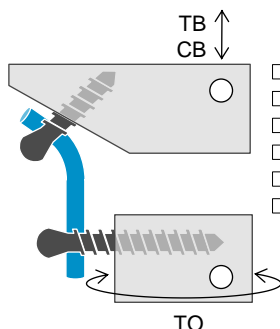
Standard Test Methods for Spinal Implant Constructs in a Vertebrectomy Model

Scope

Static and dynamic fatigue testing of spinal fixation devices in a vertebrectomy model

Spinal region

lumbar, thoracic, cervical



- Static compression bending (S-CB)
- Dynamic compression bending (D-CB)
- Static torsion (S-TO)
- Dynamic torsion (D-TO)
- Static tension bending (S-TB)
- Dynamic tension bending (D-TB)

ASTM F2706

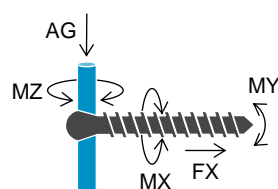
Standard Test Methods for Occipital-Cervical and Occipital-Cervical-Thoracic Spinal Implant Constructs in a Vertebrectomy Model

Scope

Static and dynamic fatigue testing of spinal fixation devices in a vertebrectomy model

Spinal region

occipital-cervical-thoracic



- Static axial gripping (S-AG)
- Static flexion-extension (S-MY)
- Dynamic flexion-extension (D-MY)
- Static torsion (S-MZ)
- Dynamic torsion (D-MZ)
- Static transverse moment (S-MX)
- Dynamic transverse moment (D-MX)
- Static anterior-posterior load (S-FX)
- others

ASTM F1798

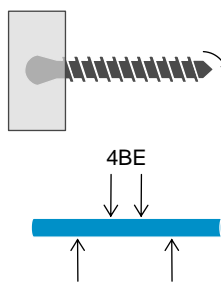
Standard Guide for Evaluating the Static and Fatigue Properties of Interconnection Mechanisms and Subassemblies Used in Spinal Arthrodesis Implants

Scope

Static and dynamic fatigue testing of subassemblies of spinal fixation devices

Spinal region

lumbar, thoracic, cervical



- Screws**
- Static bending (S-BE)
 - Dynamic bending (D-BE)
- Rods**
- Static 4-point-bending (S-4BE)
 - Dynamic 4-point-bending (D-4BE)
- Plates**
- Static 4-point-bending (S-4BE)
 - Dynamic 4-point-bending (D-4BE)

ASTM F2193

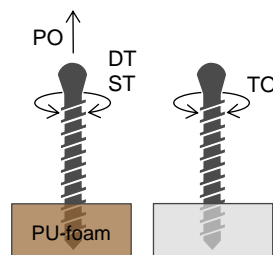
Standard Specifications and Test Methods for Components Used in the Surgical Fixation of the Spinal Skeletal System

Scope

Static and dynamic fatigue testing of single components of spinal fixation devices

Spinal region

lumbar, thoracic, cervical



- Static torsion (S-TO)
- Axial pull-out (S-PO)
- Driving torque (S-DT)
- Self tapping force (S-ST)

ASTM F543

Standard Specification and Test Methods for Metallic Medical Bone Screws

Scope

Static testing of bone screws

Spinal region

lumbar, thoracic, cervical

For further information also regarding additional test methods not covered by this summary please contact:

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