



Designation: F1582 – 98 (Reapproved 2016)

Standard Terminology Relating to Spinal Implants¹

This standard is issued under the fixed designation F1582; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This terminology covers basic terms and considerations for spinal implant devices and their mechanical analyses.

2. Referenced Documents

2.1 *ASTM Standards*:²

E6 Terminology Relating to Methods of Mechanical Testing

E1150 Definitions of Terms Relating to Fatigue (Withdrawn 1996)³

3. Terminology

Definitions Related to Spinal Implant Devices

anchor, *n*—components that are directly attached to the bony elements of the spine (sacrum, lamina, pedicle, vertebral body, spinous process, transverse process, the pelvis, or ribs).

assembly, *n*—a complete implant configuration (not including spine, pelvis, ribs, or substitute material) as intended for surgical use.

band, *n*—a flexible anchor component with a noncircular cross section that connects the bony elements of the spine, pelvis, or ribs to each other or to other implant components using a knot or similar tying mechanism, forming a locked, closed loop.

bolt, *n*—an anchor component that connects to the bony elements of the spine, pelvis, or ribs by means of threads with the lead threads accommodating a nut, thus sandwiching the bony element or implant component between the nut or washer and bolt head or other fixed stop.

¹ This terminology is under the jurisdiction of ASTM Committee F04 on Medical and Surgical Materials and Devices and is the direct responsibility of Subcommittee F04.25 on Spinal Devices.

Current edition approved Oct. 1, 2016. Published October 2016. Originally approved in 1998. Last previous edition approved in 2011 as F1582 – 98 (2011). DOI: 10.1520/F1582-98R16.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

bolt interconnection, *n*—an interconnection having an implant component sandwiched between two nuts or between a nut and fixed stop.

cable, *n*—a multi-strand, flexible longitudinal element designed primarily to resist axial tension loading.

clamp, *n*—an interconnection component whose mechanism to secure the longitudinal element is through a squeezing action.

DISCUSSION—For example, crimps, wedges, set screws.

component, *n*—any single element used in an assembly.

construct, *n*—a complete implant configuration attached to and including the spine, pelvis, ribs or substitute material as intended for surgical use.

expansion anchor, *n*—a component that forms a connection to bony element by means of a mechanism which enlarges once the component is inserted into the bony elements.

hook, *n*—an anchoring component that fastens to the spine by means of a curved blade passed under or over lamina, transverse or spinous processes or into an anatomic or surgically created notch or opening.

hook blade, *n*—that portion of a spinal hook that is placed under, over, or into a bony structure to provide attachment.

hook body—that portion of a spinal hook that connects the hook blade to the longitudinal element.

hybrid longitudinal element, *n*—a longitudinal element consisting of two or more types of longitudinal elements of different size or cross-section manufactured into a single element.

interbody spacer, *n*—a structure (biologic or synthetic) to replace (partially or totally) the vertebral body or intervertebral disk(s), or both.

interconnection, *n*—the mechanical interface or connection mechanism between at least two components or between components and bony elements of the spine, pelvis, or ribs.

interface, *n*—one of the two mating surfaces, lines or points of contact within an interconnection between two components, between any component and bone, or between two bony elements.