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Standard Terminology Relating to Spinal Implants[1]

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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:*

E 6 Terminology Relating to Methods of Mechanical Testing[2]

E 1150 Definitions of Terms Relating to Fatigue[2]

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).

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 accomodating a nut thus sandwiching the bony element or implant component between the nut or washer and bolt head or other fixed stop.

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.

post, *n*—a non-threaded anchor component that connects to the bony elements of the spine, pelvis, or ribs by means of a non-threaded hole in the bony element.

screw, *n*—an anchor component that connects to the bony elements of the spine, pelvis, or ribs by means of threads.

staple, *n*—an anchor component that connects the bony elements of the spine, pelvis, or ribs to each other or to other implant components by using at least two interconnected posts.

wire—a single strand flexible anchor component with a circular cross section that connects the bony elements of the spine, pelvis, or ribs to each other or to other implant components. A series of wire components can be bound together to form a cable (see **cable**).

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

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.

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

intervertebral body fusion devices, *n*—a structure which is placed in the disc space between two adjacent vertebral bodies to provide support for eventual arthrodeses of the two adjacent vertebral bodies.

intervertebral body fusion cage, *n*—a hollow device which contains graft material.

partial replacement disc—a structure intended to restore a portion of the support and motion or a portion thereof, between adjacent vertebral bodies.

replacement disc, *n*—a structure intended to restore support and motion between adjacent vertebral bodies.

vertebral body replacement device, *n*—a structure which is designed to restore anatomic position and support to a section of spine lacking one or more vertebral bodies and intervening disc(s).

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.

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

clamp, *n*—an interconnection component whose mechanism

[1] This terminology is under the jurisdiction of ASTM Committee F-4 on Medical and Surgical Materials and Devices and is the direct responsibility of Subcommittee F04.31 on Spinal Terminology.

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[2] *Annual Book of ASTM Standards,* Vol. 03.01.