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**FOR IMMEDIATE RELEASE**

## **THEKEN FIRST TO DESIGN ARTIFICIAL SPINAL DISC WITH EMBEDDED MICROELECTRONICS**

*Revolutionizing post-operative patient management*

**AKRON, OH (October 25, 2004)** Theken Disc, a pioneer in disc replacement technology, announced today that they are debuting the eDISC™, the first artificial lumbar spinal disc with embedded microelectronics, at the Medtech Insight IN SPINE conference in Dallas, Texas on November 11.

300,000 people in the US undergo disc operations every year. About half of these operations are for the lumbar or lower back area. Prior to non-fusion or artificial disc technology, these operations were primarily fusion procedures to remove the disc and fuse the vertebrae together. The Theken eDISC is revolutionary non-fusion technology. It provides surgeons the unprecedented ability to assess and manage their patients through embedded microelectronics. Its unmatched replication of human disc motion separates the eDISC from 1st and 2nd generation designs.

The eDISC is the first artificial disc with embedded microelectronics. The microelectronics module and integral sensors allow the disc to collect data on the motions and loads experienced by the implant. Data from the eDISC is collected wirelessly by the surgeon using a handheld PDA communicator to access real-time or stored patient data. The data downloaded from the eDISC is interpreted through the user-friendly interface. This allows the surgeon to access and compare historical and current data. In office patient maneuvers can be performed and analyzed real-time in order to assess patient performance. This functionality will make it possible for the surgeon to monitor patient rehabilitation, improve surgical placement and assist in detecting auto-fusion.

Created to withstand the motions and loads of the lumbar spine, the eDISC restores and maintains 6 degrees of freedom and elastic motion provided by a natural disc.

The eDISC is constructed using proprietary Theken-developed polymer. Over two years of in-house Theken development with world-renowned polymer experts, resulted in an elastomeric polymer specifically tailored to withstand the loads and motions of the lumbar spine. Rigorous load controlled fatigue testing shows that the Theken developed polymer is two to ten times more fatigue resistant than competing elastomers.

The eDISC is expected to begin clinical trials in 2005 and is expected to be commercially available in 2009.

### **Company Profile**

The Theken family of companies Theken Spine LLC, Theken Orthopaedic LLC and Theken Disc LLC. specializes in pioneering spinal implant technologies that improve the surgical technique benefiting the surgeon as well as the patient. Theken provides comprehensive product lines that offer surgeons peace of mind through steadfast product reliability and easy-to-use instrumentation. Products include cervical plates, pedicle screws, interbody systems and trauma devices. Theken also leads the market in next-generation artificial disc technology.

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*Warning: The eDISC is not approved for implantation in the U.S.A.*

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