

K961685

**510(k) Summary**  
**April 26, 1996**

**Johnson & Johnson Professional, Inc.**  
**325 Paramount Drive**  
**Raynham, MA 02767-0350**

**Contact Person:**  
**John Ferros**  
**Phone: 508.880.8287**

**Name of Device**

Classification Name: Knee joint patellofemorotibial polymer/metal/polymer semi-constrained cemented prosthesis has been placed in Class II by the FDA under 21 CFR 888.3560. This falls under the Orthopaedics panel/87.

Common Name: Semi-constrained total knee prosthesis.

Trade Name/Proprietary Name: **P.F.C.<sup>®</sup>  $\Sigma$  Cruciate Retaining Knee System (Size 1.5)**

Performance Standards: No performance standards have been developed for this device.

**Predicate Device**

P.F.C.<sup>®</sup>  $\Sigma$  Cruciate Retaining Knee System

**Description of Device**

The P.F.C.<sup>®</sup>  $\Sigma$  Cruciate Retaining Knee System (Size 1.5) consists of:

1. Size 1.5 asymmetrical Femoral component, both porous & non-porous coated;
2. Size 1.5 Tibial inserts;
3. Size 1.5 All-Polyethylene Tibiae (APT);
4. Size 1.5 Tibial trays;
5. Size 32mm Oval dome patellae, three and single peg.

The device is a prosthetic device intended to replace the natural knee joint. The device is constructed of UHMWPE, Titanium and Co-Cr-Mo alloy.

**Intended Use**

The P.F.C.<sup>®</sup>  $\Sigma$  Cruciate Retaining Knee System is indicated for use only with bone cement (PMMA) for patients suffering from severe pain and disability due to permanent structural damage resulting from rheumatoid arthritis, osteoarthritis, post-traumatic arthritis, collagen disorders or pseudogout. This damage may also be the result of trauma or failed prior surgical intervention.

**Technological Characteristics Compared to Predicate Device**

All technical characteristics are identical to the Predicate Device. The P.F.C.<sup>®</sup>  $\Sigma$  Cruciate Retaining Knee System (Size 1.5) is identical to the Predicate device except we are introducing smaller sized components.

**Performance Tests**

The following tests were conducted for a determination of substantial equivalence:

Constraint Testing

Contact Areas between all Interfacing Components

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Surface Characteristics of Articulating Surfaces  
Modified Surface Data Form Testing  
Tibial Insert/Tibial Tray Interlock Testing  
Lateral Stability of Patellofemoral Joint  
Fixation Testing of Patella Component (Tensile & Shear)  
Fatigue Strength of the Tibial Component

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