Clinical results with PyroCarbon MCP demonstrate good pain relief, high patient satisfaction, and functional improvement. 

Five sizing options

Cementless

Over 30 years of clinical experience
The only FDA approved total joint replacement for the MCP. No IRB approval required for use.

**PyroCarbon**

**Implant Stability**

PyroCarbon’s biochemical and biomechanical compatibility promotes biological fixation resulting in a stable bone/implant interface.

- Inert nature of PyroCarbon eliminates concern with silicone and other less biocompatible materials.
- No cement required, eliminating potential cement-related complications.

**Implant Durability**

PyroCarbon is ideally suited for the manufacture of finger joint prostheses.

- The Ascension MCP implant’s stem strength was not reduced after cyclic loading of 8 to 80 lbs. for 10 million cycles.\(^6\)
- Lab testing has shown the wear rate for a PyroCarbon on PyroCarbon joint surface is less than one tenth that of metal on UHMWPE.\(^6\)
- Tissue examined during long-term follow-up of PyroCarbon MCP implants averaging 11.8 years showed no evidence of particulate synovitis or intracellular wear particles.\(^7\)

Over 3 million PyroCarbon mechanical heart valve prostheses have been implanted since 1969, demonstrating:

- Biocompatibility - 15 million patient-years of experience with PyroCarbon cardiac valve prostheses demonstrate biocompatibility.\(^9\)
- Fatigue & Wear Resistance - Critical structures of cardiac valves demonstrate outstanding PyroCarbon on PyroCarbon wear and fatigue resistance after lab testing and clinical experience in excess of 600 million cycles of heart function.\(^10,\(^11\)
- Strength - Critical components of life sustaining cardiac valves have relied on PyroCarbon’s strength for over 30 years.

**Restored Joint Function**

Anatomic implant shape and easy-to-use instrumentation promote implant alignment, stability, and restored joint kinematics.

- Bone removal is minimized
- Critical soft tissue structures are preserved
- Anatomic bone alignment is restored
- Functional joint mechanics and range of motion are re-established

**Precise Instrumentation**

Alignment Awl and Alignment Guide – the Alignment Awl accepts a uniquely designed parallel external guide providing an accurate visual alignment reference along the bone axis.

Precise, Captured-Blade Cutting Guides – mounted on either the Alignment Awl or Broach, the proximal and distal cutting guides are easily aligned and control the initial resections. The osteotomy is completed by removing the guide and following the plane established by the guided cut.

**X-ray Appearance**

Pyrolytic carbon, as used in joint arthroplasty, consists of a 0.5–1.0mm PyroCarbon coating on a graphite substrate. While the PyroCarbon coating cannot be seen on x-ray, the graphite substrate is radiopaque and is used for intraoperative verification of implant position as well as postoperative assessment.
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Precise instrumentation can do the following:
- Anatomic stem shape promotes canal fill
- Anatomic dorsal prominence aids in resistance of subluxation forces
- Lateral relief planes allow clearance for collateral ligaments
- Reliable, one-cut planar osteotomies
- Precise joint resection is re-established

This advanced material is the material of choice for fabricating mechanical cardiac valve replacements (On-X valve shown).

PyroCarbon

One system, two choices:
PyroCarbon MCP Total Joint and 30° pre-flexed Silicone MCP

Cortical Bone
Elastic Modulus (GPa)
PyroCarbon
Titanium
CoCr Alloy

The elastic modulus of PyroCarbon closely matches that of cortical bone.

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Ascension® MCP System

Five sizes accommodate a broad range of patient anatomy

Pre-flexed 30°

One easy-to-use, color-coded instrument set for both implants:
PyroCarbon MCP Total Joint & Silicone MCP

Additional upper extremity solutions:

Ascension® PyroCarbon PIP Total Joint
Ascension® Silicone PIP Pre-flexed Joints
Ascension® PyroCarbon CMC Arthroplasty
First Choice® DRUJ: Partial & Modular Ulnar Head
Ascension® RADFx® Fixation System
TITAN™ Humeral Resurfacing Arthroplasty

Ascension® PyroCarbon MCP Total Joint

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Caution: U.S. federal law restricts this device to sale by or on the order of a physician.

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Over 30 years of clinical experience