Ascension® MCP PyroCarbon Total Joint

Five sizes accommodate a broad range of patient anatomy

SIZE	CATALOG NUMBER
10	MCP-100-10
20	MCP-100-20
30	MCP-100-30
40	MCP-100-40
50	MCP-100-50

Easy-to-use, color coded instrumentation

	CATALOG NUMBER
Instrument Set	INS-100-00

About The Company

Ascension Orthopedics, Inc. is dedicated to the research, development, manufacture and distribution of revolutionary PyroCarbon orthopedic implants to replace the small skeletal joints of the hand, upper extremity, and foot. The founders of the company are pioneers in the use of PyroCarbon to combat the debilitating effects of arthritis.[7,8]

REFERENCES

1 Haubold A and Lankford J; Pyrolytic carbons in mechanical heart valves, *J. Heart Valve Disease*, Vol. 5, Supplement 1, June 1996, S1.

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3 Cao H; Mechanical performance of pyrolytic carbon in prosthetic heart valve applications, *J. Heart Valve Disease*, Vol. 5, Supplement 1, June 1996, S32-S58.

4 Ma L and Sines G; Fatigue of isotropic pyrolytic carbon used in mechanical heart valves, *J. Heart Valve Disease*, Vol. 5, Supplement 1, June 1996, S59-S64.

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7 Cook SD, Beckenbaugh R, Weinstein AM and Klawitter J; Pyrolite carbon implants in the metacarpophalangeal joint of baboons, *Orthopedics*, 1983; Vol. 6/No 8, 952-961.

8 Beckenbaugh R; Preliminary experience with a noncemented, nonconstrained total joint arthroplasty for the metacarpophalangeal joints, *Orthopedics*, 1983; Vol. 6/No 8, 962-965.

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10 Cook SD, Beckenbaugh RD, Redondo J, Popich LS, Klawitter JJ, and Linscheid RL; Long term follow-up of pyrolytic carbon metacarpophalangeal implants, *J. of Bone and Joint Surgery*, May 1999, Vol. 81-A/No 5, 635.

Combining advanced material with anatomic design

Ascension Orthopedics

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Caution: U.S. federal law restricts this device to sale by or on the order of a physician.
Patent #5782927

LC-04-107-002 rev D

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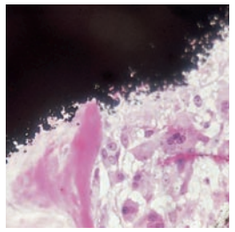
Ascension Orthopedics



Photomicrograph of bone tissue in direct contact with PyroCarbon resulting in biological fixation of implants.

advanced material

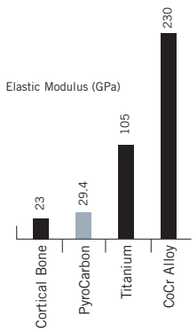
PyroCarbon

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.



Elastic modulus of metal is much greater than that of bone or PyroCarbon. PyroCarbon minimizes bone loss due to stress shielding.

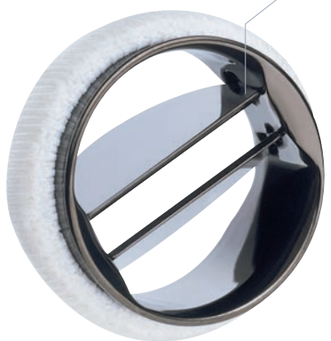
Implant Durability

Over 3 million PyroCarbon mechanical heart valve prostheses have been implanted since 1969[1], demonstrating:

› **Biocompatibility** - 15 million patient-years of experience with PyroCarbon cardiac valve prostheses demonstrate biocompatibility.[2]

› **Fatigue and 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.[3,4]

› **Strength** - Critical components of life sustaining cardiac valves have relied on PyroCarbon's strength for over 30 years.



PyroCarbon is the material of choice for fabrication of mechanical cardiac valve replacements (On-X® valve shown).

PyroCarbon is also ideally suited for the manufacture of finger joint prostheses.[5,6,7,8]

› The Ascension MCP implant's stem strength was not reduced after cyclic loading of 8 to 80 lbs. for 10 million cycles.[9]

› Lab testing has shown the wear rate for a PyroCarbon on PyroCarbon joint surface is less than one tenth that of metal on UHMWPe.[9]

› Tissue samples examined during long term follow-up of PyroCarbon MCP implants averaging 11.8 years showed no evidence of particulate synovitis or intracellular wear particles.[10]

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

Radiopaque prostheses allow for intraoperative verification of implant position and post operative assessment.

design

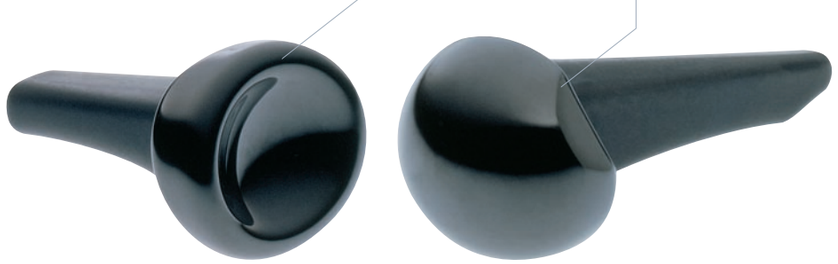
anatomic

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, Color-Coded Instrumentation

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

Precise, Captured-Blade Cutting Guides
Mounted on either the Alignment Awl or broaches, 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.

Ascension® MCP PyroCarbon Total Joint

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