

HIP SYSTEM solutions

Lineage[®]

ACETABULAR CUP SYSTEM

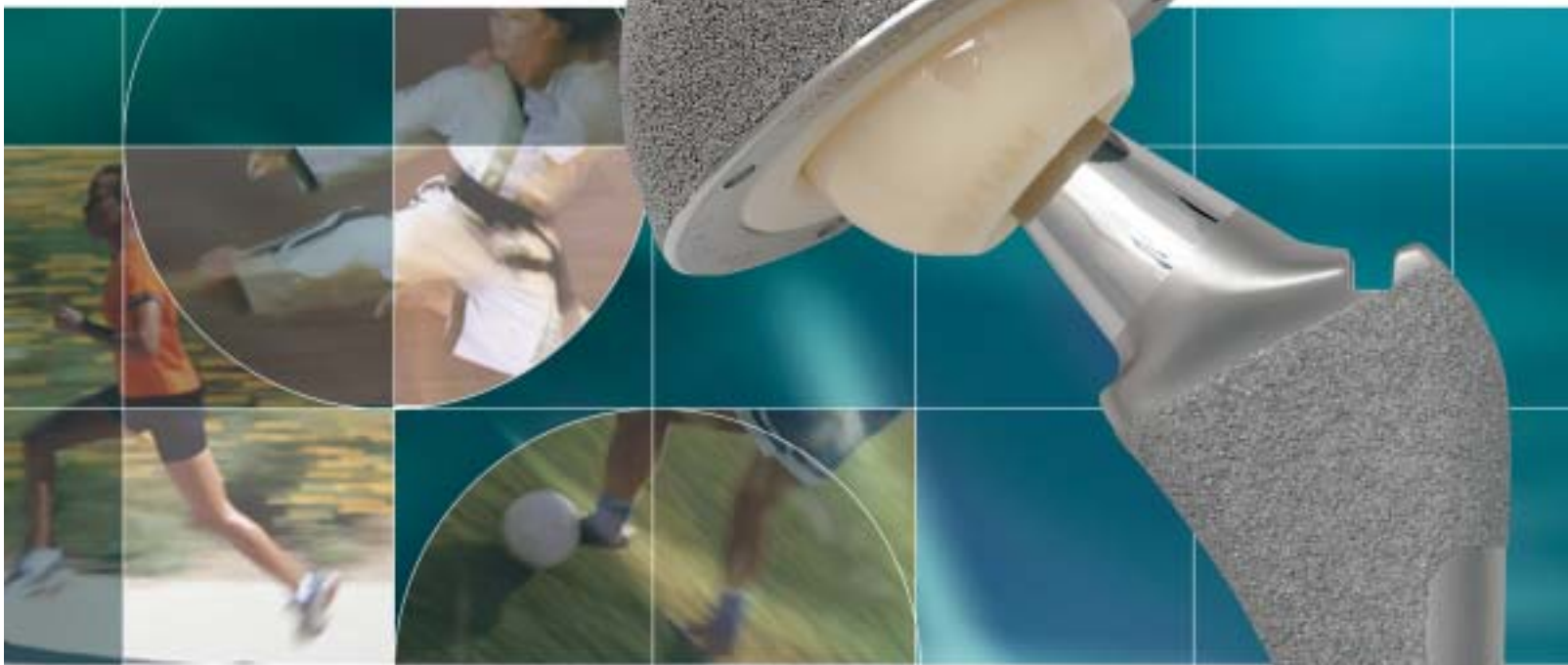


Demand-Matched Articulation
Combined With State-of-the-Art
Acetabular Components

WRIGHT.

ceramic on ceramic

ARTICULATION



LINEAGE® Acetabular Ceramic Liners

7100-2846	28mm ID	Group 1
7200-3252	32mm ID	Group 2
7300-3258	32mm ID	Group 3
7400-3664	36mm ID	Group 4

LINEAGE® Acetabular Ceramic Femoral Heads

2600-0004	Alumina Ceramic Head	28mm x -3.5mm
2600-0005	Alumina Ceramic Head	28mm x +0mm
2600-0006	Alumina Ceramic Head	28mm x +3.5mm
2600-0007	Alumina Ceramic Head	32mm x -3.5mm
2600-0008	Alumina Ceramic Head	32mm x +0mm
2600-0009	Alumina Ceramic Head	32mm x +3.5mm
2600-0010	Alumina Ceramic Head	36mm x -3.5mm
2600-0011	Alumina Ceramic Head	36mm x +0mm
2600-0012	Alumina Ceramic Head	36mm x +3.5mm

Wear debris has been shown to be a cause of osteolysis in total hip replacements. The LINEAGE® Acetabular System with ceramic liners offers a low wear option to minimize wear debris generation and potential osteolysis. LINEAGE™ Ceramic Liners provide high strength and significantly lower wear debris generation over traditional bearing surfaces.

- Alumina ceramic for high strength and wear resistance
- 28, 32, and 36mm inside diameter options
- 18° internal taper securely locks liner to shell
- Large heads provide increased range of motion minimizing impingement and potential dislocation
- Highly machined to exacting tolerances to assure optimum surface finish and sphericity
- Over 7 years of clinical use with ceramic bearings

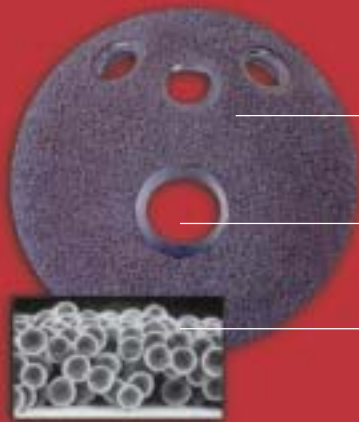
Type of Coupling	Approx Annual Linear Wear Rates
Cobalt Chrome on Polyethylene	0.1mm – 0.4mm/year
Alumina Ceramic on Polyethylene	0.05mm – 0.1mm/year
Cobalt Chrome on Cobalt Chrome	0.004mm/year
Alumina Ceramic on Alumina Ceramic	0.002mm/year

Lineage[®]

ACETABULAR CUP SYSTEM

The LINEAGE[®] Acetabular System provides unsurpassed surgical flexibility for shell fixation and bearing material choices. The LINEAGE[®] Acetabular Shells are manufactured from titanium, the material of choice for biocompatibility and reduced stiffness. The unique internal shape and design allow the use of ceramic, metal, or UHMW polyethylene liners. This allows the surgeon to select the bearing material most appropriate for a wide range of patient demands and activity.

- 14° flared rim enhances fit for initial and long term stability
- Beaded, porous surface for biologic fixation
- Solid, quadrant, and multi-hole options for adjunct fixation when required
- Titanium for biocompatibility
- Apical hole allows visualizing component seating
- 18° internal taper securely locks liners in the shell minimizing micromotion and backside wear



Three screw holes located in one quadrant of the cup allow for surgical flexibility.

An apical hole plug is optional for sealing the bone/implant interface.

A titanium shell with irregularly layered porous beads enhances initial fixation and long term bone apposition. The average pore size of 114um allows for optimum bone ingrowth.¹



metal on metal

ARTICULATION



LINEAGE® Acetabular Metal Liners

7010-2846	28mm ID	Group 1
7020-3252	32mm ID	Group 2
7030-3258	32mm ID	Group 3
7040-3664	36mm ID	Group 4

LINEAGE® Acetabular Metal Femoral Heads

2600-0017	Super Finish CoCr Head	28mm x -3.5mm
2600-0018	Super Finish CoCr Head	28mm x +0mm
2600-0019	Super Finish CoCr Head	28mm x +3.5mm
2600-0020	Super Finish CoCr Head	28mm x +7mm
2600-0021	Super Finish CoCr Head	32mm x -3.5mm
2600-0022	Super Finish CoCr Head	32mm x +0mm
2600-0023	Super Finish CoCr Head	32mm x +3.5mm
2600-0024	Super Finish CoCr Head	32mm x +7mm
2600-0025	Super Finish CoCr Head	36mm x -3.5mm
2600-0026	Super Finish CoCr Head	36mm x +0mm
2600-0027	Super Finish CoCr Head	36mm x +3.5mm
2600-0028	Super Finish CoCr Head	36mm x +7mm

The use of cobalt chrome in total hip replacement has a long and successful clinical history. The LINEAGE® Acetabular System with metal liners builds on this clinical history using sophisticated manufacturing methods and materials to minimize wear debris generation.

- High carbon, cast cobalt chrome material provides high strength and wear resistance
- 28, 32, and 36mm inside diameter options
- 18° internal taper securely locks liner to shell with no fretting wear²
- Highly machined to exacting tolerances to assure optimum surface finish and sphericity

Push-Out (lb)		Lever-Out (inch-lb)		Torsional Resistance (inch-lb)	
Pre-fatigue	Post-fatigue	Pre-fatigue	Post-fatigue	Pre-fatigue	Post-fatigue
600	806	3,427*	4,778*	1,217**	1,338**

*The lever-out fixture failed before the insert could be disassociated from the shell.

**The cement adhesive failed before the taper interface was broken.

Data on file at Wright Medical Technology, Inc.

metal on polyethylene

ARTICULATION



LINEAGE® Acetabular Poly Liners —28mm ID

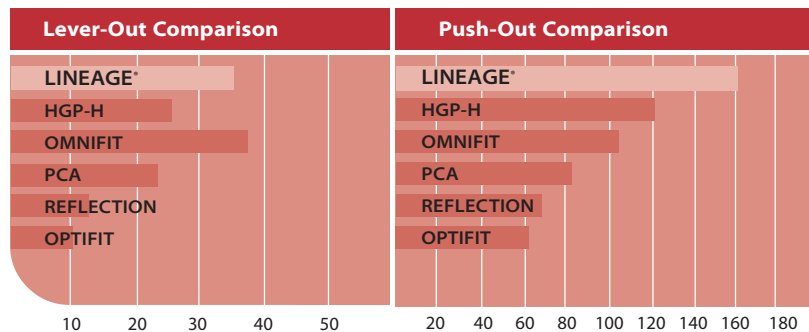
3645-2801	15° x 28mm	Group 1
3645-2802	15° x 28mm	Group 2
3645-2803	15° x 28mm	Group 3
3645-2804	15° x 28mm	Group 4
3647-2801	15° x 28mm +4 Lat	Group 1
3647-2802	15° x 28mm +4 Lat	Group 2
3647-2803	15° x 28mm +4 Lat	Group 3
3647-2804	15° x 28mm +4 Lat	Group 4
3641-2801	0° x 28mm	Group 1
3641-2802	0° x 28mm	Group 2
3641-2803	0° x 28mm	Group 3
3641-2804	0° x 28mm	Group 4
3643-2801	0° x 28mm +4 Lat	Group 1
3643-2802	0° x 28mm +4 Lat	Group 2
3643-2803	0° x 28mm +4 Lat	Group 3
3643-2804	0° x 28mm +4 Lat	Group 4

LINEAGE® Acetabular Poly Liners — 32mm ID

3645-3202	15° x 32mm	Group 2
3645-3203	15° x 32mm	Group 3
3645-3204	15° x 32mm	Group 4
3647-3202	15° x 32mm +4 Lat	Group 2
3647-3203	15° x 32mm +4 Lat	Group 3
3647-3204	15° x 32mm +4 Lat	Group 4
3641-3202	0° x 32mm	Group 2
3641-3203	0° x 32mm	Group 3
3641-3204	0° x 32mm	Group 4
3643-3202	0° x 32mm +4 Lat	Group 2
3643-3203	0° x 32mm +4 Lat	Group 3
3643-3204	0° x 32mm +4 Lat	Group 4

Joint stability and proper center of rotation are critical requirements for a successful total hip replacement. The LINEAGE® Acetabular System with UHMWPE liners provide lipped options for increased femoral head coverage promoting a stable joint. Standard and lateralized options allow the center of rotation to be reestablished further aiding in optimum joint mechanics.

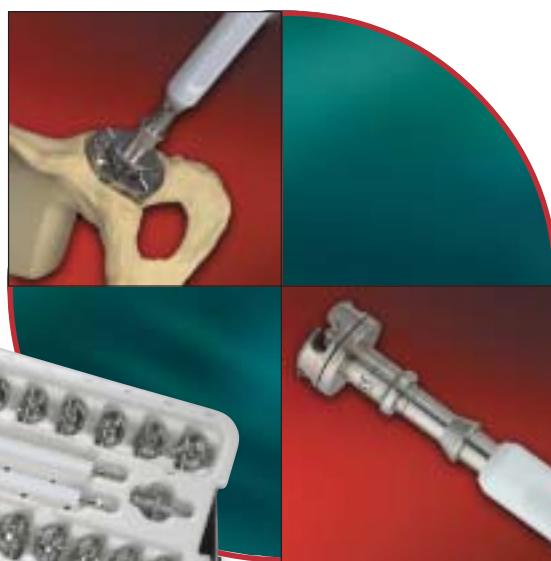
- Ethylene oxide sterilization minimizes oxidative degradation
- 28 and 32mm inside diameter options
- Standard and +4mm lateralized options
- 0° and 15° lip options allow 360° positioning of lip in shell



acetabular REAMERS

LINEAGE® Acetabular Reamers are specifically designed to maintain their shape and size over multiple uses. The unique cutting tooth pattern creates a uniform spherical cavity that allows optimum fit between the shell and host bone, while providing aggressive cutting in hard bone. The open back and quick lock attachment allow increased visualization of the reamer fit in the acetabulum.

The small diameter handle minimizes impingement with soft tissue during reaming. Trays are lightweight and organized for easy access and use.

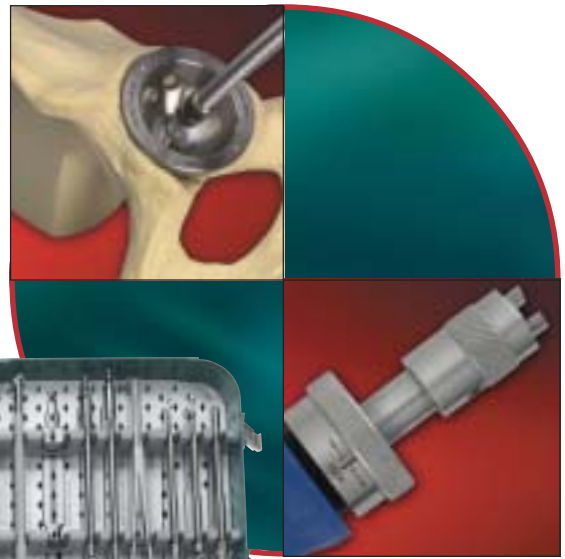


acetabular screw

INSTRUMENTS

LINEAGE® Acetabular Screw Instruments are designed for ease of use while maintaining simplicity and minimal space requirements. The tray folds in half for storage and for ease in handling. A full complement of modular drills, taps, and bits are designed around a quick-connect handle. The adjustable drill guide allows multiple angle adjustments for easy and proper drill hole placement. The flexible depth gage easily bends around tight corners, without binding, to accurately measure for proper screw depth.

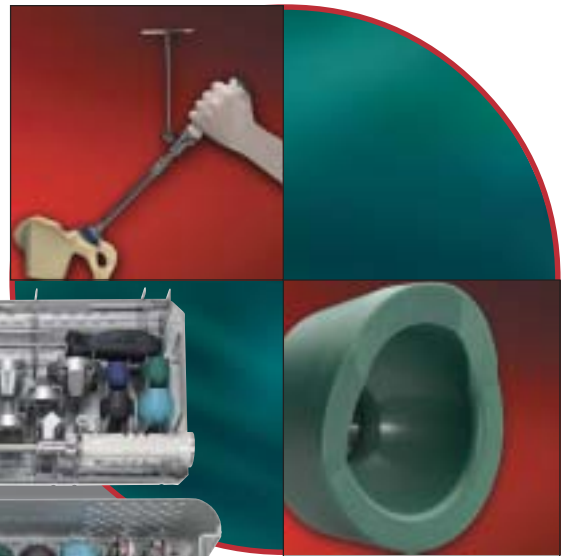
Multiple screwdriver options allow easy access to internal screw holes. Handle provides ratchet or fixed mode use.



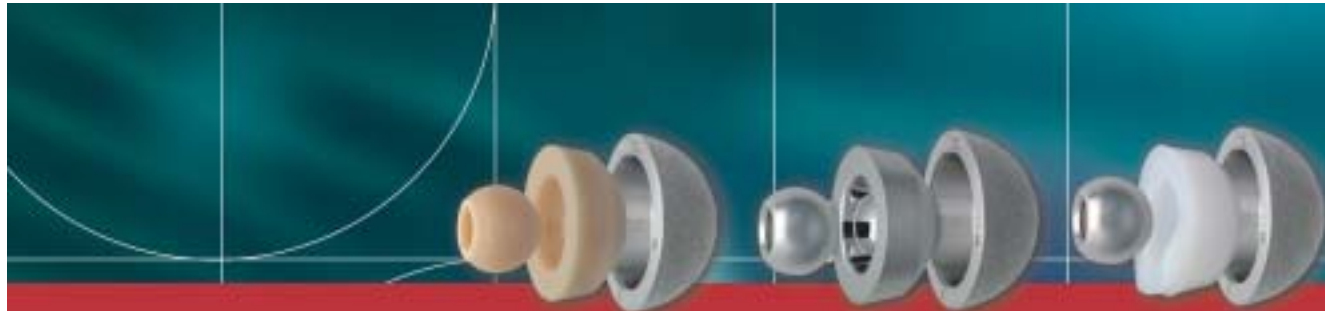
acetabular INSTRUMENTS

The LINEAGE® Acetabular Instruments are streamlined for easy identification and straight forward use. Trial liners are attached to the shell with an apex screw, minimizing movement and protecting the internal shell taper. Liner positioner impactors have an “o-ring” device that securely holds the implant during placement and impaction. The shell impactor has a unique spring loaded thread that collapses into the handle during impaction. This minimizes the load transfer to the threads and allows for easier removal of the impactor from the shell.

The alignment tower allows precise shell positioning in the acetabulum. Trial liners securely attach to the shell providing accurate range of motion evaluation, while also protecting the shell's internal taper.



liner OPTIONS



shell size	group	ceramic inside diameters	metal inside diameters	polyethylene inside diameters
46 48 50	Group 1	28mm	28mm	28mm
52 54 56	Group 2	32mm	32mm	28 & 32mm
58 60 62	Group 3	32mm	32mm	28 & 32mm
64 66 68	Group 4	36mm	36mm	28 & 32mm

LINEAGE® Acetabular Shells – Quad Shell

Part Number	Material	Size	Group
3643-0046	Porous Coated Quad Shell	46mm	Group 1
3643-0048	Porous Coated Quad Shell	48mm	Group 1
3643-0050	Porous Coated Quad Shell	50mm	Group 1
3643-0052	Porous Coated Quad Shell	52mm	Group 2
3643-0054	Porous Coated Quad Shell	54mm	Group 2
3643-0056	Porous Coated Quad Shell	56mm	Group 2
3643-0058	Porous Coated Quad Shell	58mm	Group 3
3643-0060	Porous Coated Quad Shell	60mm	Group 3
3643-0062	Porous Coated Quad Shell	62mm	Group 3
3643-0064	Porous Coated Quad Shell	64mm	Group 4
3643-0066	Porous Coated Quad Shell	66mm	Group 4
3643-0068	Porous Coated Quad Shell	68mm	Group 4

LINEAGE® Acetabular Shells – Solid Spiked

Part Number	Material	Size	Group
3655-0046	Porous Coated Solid Shell – Spiked	46mm	Group 1
3655-0048	Porous Coated Solid Shell – Spiked	48mm	Group 1
3655-0050	Porous Coated Solid Shell – Spiked	50mm	Group 1
3655-0052	Porous Coated Solid Shell – Spiked	52mm	Group 2
3655-0054	Porous Coated Solid Shell – Spiked	54mm	Group 2
3655-0056	Porous Coated Solid Shell – Spiked	56mm	Group 2
3655-0058	Porous Coated Solid Shell – Spiked	58mm	Group 3
3655-0060	Porous Coated Solid Shell – Spiked	60mm	Group 3
3655-0062	Porous Coated Solid Shell – Spiked	62mm	Group 3
3655-0064	Porous Coated Solid Shell – Spiked	64mm	Group 4
3655-0066	Porous Coated Solid Shell – Spiked	66mm	Group 4
3655-0068	Porous Coated Solid Shell – Spiked	68mm	Group 4

LINEAGE® Acetabular Shells – Solid Shell

Part Number	Material	Size	Group
3645-0046	Porous Coated Solid Shell	46mm	Group 1
3645-0048	Porous Coated Solid Shell	48mm	Group 1
3645-0050	Porous Coated Solid Shell	50mm	Group 1
3645-0052	Porous Coated Solid Shell	52mm	Group 2
3645-0054	Porous Coated Solid Shell	54mm	Group 2
3645-0056	Porous Coated Solid Shell	56mm	Group 2
3645-0058	Porous Coated Solid Shell	58mm	Group 3
3645-0060	Porous Coated Solid Shell	60mm	Group 3
3645-0062	Porous Coated Solid Shell	62mm	Group 3
3645-0064	Porous Coated Solid Shell	64mm	Group 4
3645-0066	Porous Coated Solid Shell	66mm	Group 4
3645-0068	Porous Coated Solid Shell	68mm	Group 4

LINEAGE® Acetabular Shells – Multi-Hole Deep Profile

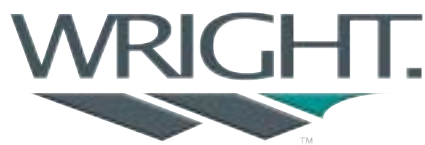
Part Number	Material	Size	Group
3658-0046	Porous Coated Multi-Hole Shell – Deep Profile	46mm	Group 1
3658-0048	Porous Coated Multi-Hole Shell – Deep Profile	48mm	Group 1
3658-0050	Porous Coated Multi-Hole Shell – Deep Profile	50mm	Group 1
3658-0052	Porous Coated Multi-Hole Shell – Deep Profile	52mm	Group 2
3658-0054	Porous Coated Multi-Hole Shell – Deep Profile	54mm	Group 2
3658-0056	Porous Coated Multi-Hole Shell – Deep Profile	56mm	Group 2
3658-0058	Porous Coated Multi-Hole Shell – Deep Profile	58mm	Group 3
3658-0060	Porous Coated Multi-Hole Shell – Deep Profile	60mm	Group 3
3658-0062	Porous Coated Multi-Hole Shell – Deep Profile	62mm	Group 3
3658-0064	Porous Coated Multi-Hole Shell – Deep Profile	64mm	Group 4
3658-0066	Porous Coated Multi-Hole Shell – Deep Profile	66mm	Group 4
3658-0068	Porous Coated Multi-Hole Shell – Deep Profile	68mm	Group 4

LINEAGE® Acetabular Screws

Part Number	Material	Length
1808-0300	6.5 Cancellous Screw	15mm
1808-0301	6.5 Cancellous Screw	20mm
1808-0302	6.5 Cancellous Screw	25mm
1808-0303	6.5 Cancellous Screw	30mm
1808-0304	6.5 Cancellous Screw	35mm
1808-0305	6.5 Cancellous Screw	40mm
1808-0306	6.5 Cancellous Screw	45mm
1808-0307	6.5 Cancellous Screw	50mm

¹ Boby, J.D., Pillar, R.M., Cameraon, H.U., Weatherly, G.C.; The Optimum Pore Size for the Fixation of Porous-Surfaced Metal Implants by the Ingrowth of Bone, *Clin Orthop. Rel. Res.* 150: 260-273 (1980).

² Technical Monograph: Performance Characteristics of the Metal LINEAGE™ Articulation System, Data on file at Wright Medical Technology, Inc.



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