

Plasmapore^{®XP} Surface Enhancing Technology



Give Bone a Solid Grip

Body of Evidence

Aesculap Spine

Plasmapore has been implanted with confidence and studied in more than 20 clinical and pre-clinical publications.^{*,**,+}

Plasmapore^{®XP} is the culmination of over 20 years of innovation in spinal technology and more than 30 years of experience with porous titanium surface enhancing technology. In 1986, Aesculap introduced the first Plasmapore titanium surface enhancement on the Bicontact[™] hip prosthesis, and later in 1995, Aesculap launched the first Plasmapore^{®XP} spinal fusion implant – ProSpace[™]. Below details our clinical and pre-clinical experience with this technology:

Year
on market:

1986

Total orthopaedic and
spine patients studied:

1000+

Total Plasmapore^{®XP} surface enhanced
devices implanted since launch:

50,000

Author	Publication	Type	Application	Year
Ahmad Hatem M, Ferreira da Luz B, Nishimoto Nishi R, Gilberto Cimbalista de Alencar P.	Rev Bras Ortop.	Clinical	Ortho	2014
Arregui R, Aso J, Martinez-1 Quinones JV, Consolini F, Lamban N, Dominguez M.	Neurocirugia	Clinical	Spine	2011
Badhe NP, Quinnell RC, Howard PW.	J Arthroplasty	Clinical	Ortho	2002
Braun A, Papp J, Reiter A.	International Orthopedics	Clinical	Ortho	2003
Bronsard JJ, Tropiano P, Louis C, Kaech DL.	Spinal Restabilization Procedures	Clinical	Spine	2002
Drobniewski M, Borowski A, Synder M, Sibiński M.	Ortop Traumatol Rehabil.	Clinical	Ortho	2014
Eingartner C, Volkmann R, Winter E, Maurer F, Sauer G, Weller S, Weise K.	J Arthroplasty	Clinical	Ortho	2000
Fink U	Actualités en Biomatériaux	Pre-Clinical	Pre-Clinical	1996 ¹
Flamme CH, Wirth CJ, Stukenborg-Colsmann.	Z Orthop Ihre Grenzgeb.	Clinical	Ortho	2001
Gordon A, Wilkinson JM, Stockley I.	Hip International	Clinical	Ortho	2002
Gronewold J, Berner S, Olender G, Hurschler C, Windhagen H, von Lewinski G, Floerkemeier T.	Orthop Rev (Pavia)	Pre-Clinical	Pre-Clinical	2014
Hahn P, Ruetten S, Godolias G.	Jahrestagung der Norddeutschen Orthopäden	Clinical	Spine	2005
Janíček P, Janíček P, Fuis V, Pink T.	Acta Chir Orthop Traumatol Cech.	Clinical	Ortho	2006
Kim YM, Kim HJ, Song WS, Yoo JJ.	J Arthroplasty	Clinical	Ortho	2004
Kohler S, Nahmmacher V.	Z Orthop Unfall.	Clinical	Ortho	2007
Konstantinidis L, Schmidt B, Bernstein A, Hirschmüller A, Schröter S, Südkamp NP, Helwig P.	Proc Inst Mech Eng H.	Pre-Clinical	Pre-Clinical	2016
Krayenbuhl N, Schneider C, Ladnolt H, Fandino J.	J Clin Neur.	Clinical	Spine	2008
Kroppenstedt S, Gulde M, Schonmayr R.	Spine	Clinical	Spine	2008
Łoboda K, Gadek A, Papież K, Pokrowiecki W.	Przegl Lek.	Clinical	Ortho	2013
Meier U, Grawe A, Hadiukova A.	Neursurg Quart	Clinical	Spine	2003
Ochs U, Eingartner C, Volkmann R, Ochs BG, Huber C, Weller S, Weise K.	Zeitschrift für Orthopädie und Unfallchirurgie.	Clinical	Ortho	2007
Sakai R, Kikuchi A, Morita T, Takahira N, Uchiyama K, Yamamoto T, Moriya M, Uchida K, Fukushima K, Tanaka K, Takaso M, Itoman M, Mabuchi K.	Hip Int.	Pre-Clinical	Pre-Clinical	2011
Špička J, Radová L, Gallo J.	Acta Chir Orthop Traumatol Cech.	Clinical	Ortho	2012
Steimer O, Adam F, Johann S, Pape D.	Z Orthop Ihre Grenzgeb.	Clinical	Ortho	2006
Stukenborg-Colsman CM, von der Haar-Tran A, Windhagen H, Bougoucha A, Wefstaedt P, Lerch M.	Hip Int.	Clinical	Ortho	2012
Swamy G, Pace A, Quah C, Howard P	Int Orthop	Clinical	Ortho	2012
Takata ET, Basile R, Albertoni WM.	Z Orthop Unfall.	Clinical	Ortho	2007
Takeuchi M, Yasuda M, Niwa A, Wakao N, Nakura T, Osuka K, Kamiya M, Takayasu M.	World Neurosurgery	Clinical	Spine	2014
Tropiano P, Diop A, Dejou J, Bronsard JJ, Poitout DG.	Chirurgie	Pre-Clinical	Pre-Clinical	1999
Tropiano P, Diop A, Dejou J, Bronsard JJ, Poitout DG.	Revista di Neuradiologia	Clinical	Spine	1999
Tsukada S, Wakui M.	J Arthroplasty	Clinical	Ortho	2016
Volkmann R, Eingartner C, Winter E, Weise K, Weller S.	European Journal of Orthopedic Surgery	Clinical	Ortho	1998
Weller S, Braun A, Gellrich JC, Gross U.	Interfaces in Total Hip Arthroplasty	Pre-Clinical	Pre-Clinical	2000
Weller S.	International Orthopedics	Pre-Clinical	Pre-Clinical	2003

* While some publications speak to osteointegration, Aesculap does not promote osteointegration with Plasmapore^{®XP}.

** Data has been gathered for products outside the US. ProSpace Titanium is not cleared for sale in the US. Plasmacup is not cleared for sale in the US.

+ For US on-label indications, please see www.aesculapimplantsystems.com for full prescribing information including indications, contraindications, warnings and precautions.

¹ Review of clinical publications, numbers from the same institution and/or author were adjusted to avoid duplication. Searches performed in PubMed, Google, on-file data and in relevant reference lists in January 2017.