DERMABOND® Portfolio Value Proposition

May 2017

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Wound closure success is key to a great surgical outcome

Choosing the right topical skin adhesive (TSA) can provide a host of wound healing benefits:

- ✓ Strength and security throughout the healing process[1,2]
- ✓ Microbial barrier protection[3]
- ✓ Patient satisfaction benefits[1,4]
- ✓ Excellent cosmesis[5]

References 1. Quinn J, Wells G, Sutcliffe T, et al. A randomized trial comparing octylcyanoacrylate tissue adhesive and sutures in the management of lacerations. *JAMA*. 1997;277(19):1527-1530. **2.** Singer AJ, Perry LC, Allen RL. In vivo study of wound-bursting strength and compliance of topical skin adhesives. *Acad Emerg Med*. 2008;15(12):1290-1294. **3.** Bhende S, Rothenburger S, Spangler DJ, Dito M. In vitro assessment of microbial barrier properties of DERMABOND® Topical Skin Adhesive. *Surg Infect (Larchmt)*. 2002;3(3):251-257. **4.** DERMABOND® PRINEO® Skin Closure System, Instructions for Use. **5.** Data on file, Ethicon Inc. Multi-centre study to show equivalence of DERMABOND PROTAPE to INTRADERMAL SUTURES for skin closure of full thickness surgical incisions. 06CS005, Final Report 10 June 2010.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Don’t compromise

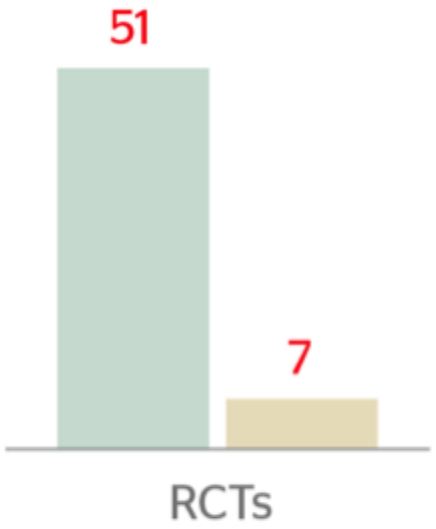
Choose the only topical skin adhesive (TSA) that has been tried, tested, and trusted for nearly 20 years.

ETHICON
PART OF THE Johnson&Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Supported by more clinical evidence than the top 6 competitors combined

DERMABOND ADVANCED® Topical Skin Adhesive is supported by substantially more randomized controlled trials (RCTs) than the top 6 competitors combined.[1-3*†‡]

- **DERMABOND ADVANCED Adhesive[2*]**
  5,718 patients
- **Top 6 competitors combined[3†‡]**
  612 patients



*DERMABOND ADVANCED Adhesive tests equivalent or superior to DERMABOND Adhesive in head-to-head testing for microbial barrier, wound-bursting strength, tensile strength, flexibility, durability, viscosity, drying time, water vapor transmission rate, water resistance, and physician satisfaction.
†Based on published literature in PubMed as of March 7, 2017, using only RCTs that evaluated the use of the product in a manner consistent with intended indication.
‡Top 6 US competitors include LiquiBand®, Skin Aix™, SwiftSet™, SurgiSeal®, Derma+Flex® QS™, and Histoacryl®.

References 1. Data on file, Ethicon Inc. Ethicon US Market Share Report, October 2016. **2.** Data on file, Ethicon Inc. Dermabond RCT List, Jan 2017. **3.** Data on file, Ethicon Inc. Competitive TSA RCT Summary.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Large retrospective analyses support the clinical and economic benefits of DERMABOND ADVANCED® Topical Skin Adhesive

In a retrospective study of 1,360 patients in CABG surgery, postoperative hospital stay was **reduced from 13 to 9 days** when DERMABOND ADVANCED was used in addition to conventional sutures[1]

In a retrospective database study of 155,557 C-sections, **hospitalization costs were $500 lower** for the DERMABOND ADVANCED Adhesive skin closure group vs. staples or sutures alone[2]*

*Premier Perspective™ Comparative Database

References 1. Souza EC, Fitaroni RB, Januzelli DM, et al. Use of 2-octyl cyanoacrylate for skin closure of sternal incisions in cardiac surgery: observations of microbial barrier effects. *Curr Med Res Opin*. 2008;24(1):151155. **2.** Murrmann SG, Markowitz JS, Gutterman EM, Magee G. Health and economic outcomes after OBGYN surgery: a comparison of skin closure techniques. Poster presentation at 2008 Annual Clinical Meeting of The American College of Obstetricians and Gynecologists; May 37, 2008; New Orleans, LA.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Sustained innovation has given rise given rise to the only brand that offers a complete portfolio of skin closure solutions for a wide variety of incision length and closure strength needs

1998	2002	2006	2011	2015
DERMABOND Adhesive	DERMABOND Adhesive (High viscosity)	DERMABOND® Mini Topical Skin Adhesive	DERMABOND ADVANCED® Topical Skin Adhesive & DERMABOND® PRINEO® Skin Closure System (60 cm)	DERMABOND® PRINEO® Skin Closure System (22 cm)

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

DERMABOND® Portfolio of topical skin adhesives – a comprehensive portfolio for a variety of clinical needs

Strength and protection[1-3*]

DERMABOND® Mini
Topical Skin Adhesive

Ideal for:
- Small lacerations
- Minimally invasive procedures

DERMABOND ADVANCED®
Topical Skin Adhesive

Ideal for:
- Open hernia repair
- Mid to large lacerations

Uncompromised strength and protection for excellent wound closure security[4,5†]

DERMABOND® PRINEO®
Skin Closure System (22 cm)

Ideal for:
- Orthopedic surgeries:
  - Total knee arthroplasty
  - Total hip arthroplasty
  - Spine surgeries

DERMABOND PRINEO
System (60 cm)

Ideal for:
- Abdominoplasty
- Breast reconstruction
- Sternotomy
- Brachioplasty

*Equivalent to a 4-0 MONOCRYL® (poliglecaprone 25) Suture
†Equivalent to a 3-0 MONOCRYL Suture

References 1. Singer AJ, Perry LC, Allen RL. In vivo study of wound-bursting strength and compliance of topical skin adhesives. *Acad Emerg Med.* 2008;15(12):1290-1294. **2.** Quinn J, Wells G, Sutcliffe T, et al. A randomized trial comparing octyl cyanoacrylate tissue adhesive and sutures in the management of lacerations. *JAMA.* 1997;277(19):1527-1530. **3.** Shapiro AJ, Dinsmore RC, North JH Jr. Tensile strength of wound closure with cyanoacrylate glue. *Am Surg.* 2001;67(11):1113-1115. **4.** Data on file, Ethicon Inc. Protocol investigation of the comparison of PRINEO with conventional wound closure techniques. Keplinger, 07PD0748. **5.** Data on file, Ethicon Inc. Study Report for in vitro evaluation of microbial barrier properties of DERMABOND ProTape. Su, 06TR071.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

DERMABOND® PRINEO® Skin Closure System

Beyond sutures and staples lies a more innovative solution

Powerful combination of 2-octyl cyanoacrylate (2-OCA) and self-adhering mesh

DERMABOND PRINEO System (22 cm)

DERMABOND PRINEO System (60 cm)

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Designed to promote an ideal wound-healing environment

Protection

- Provides microbial-barrier protection 99% effective in vitro for 72 hours against organisms commonly responsible for surgical site infection (SSI)[1]*
  - Demonstrates in vitro inhibition of bacteria (Methicillin-resistant *Staphylococcus aureus*, Methicillin-resistant *Staphylococcus epidermidis*, *Escherichia coli*)[2]†

Strength

- Significantly greater skin holding strength than skin staples or subcuticular suture[3,4]‡
- Redistributes tension away from the wound to the surrounding healthy surface area

Patient Satisfaction

- Patient may be able to shower immediately after the procedure, if directed by the healthcare professional[5]
- At the time of removal, DERMABOND PRINEO System is associated with less pain than other wound closure devices[6]
- No post-surgical dressings may mean easier self-care and greater self-confidence for patients[7]

*Staphylococcus epidermidis, Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa, andEnterococcus faecium
†Clinical significance unknown
‡In an ex vivo study, more load in N was required to create a 3-mm gap between skin edges approximated with DERMABOND PRINEO System (22 cm) than with subcuticular 4-0 MONOCRYL® (poliglecaprone 25) Suture or PROXIMATE® Ethicon Endo-Surgery skin staples (P<.001).

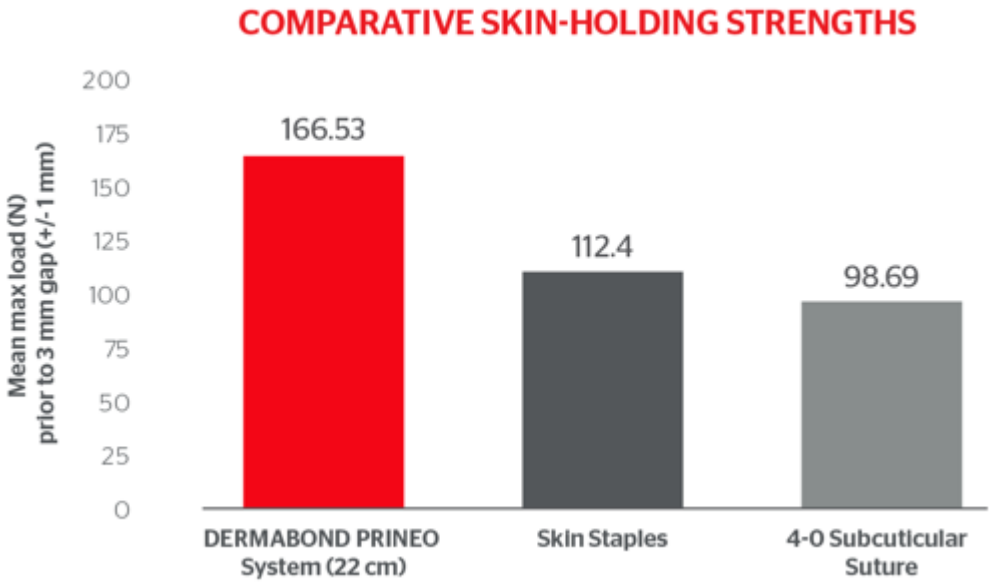
References: 1. Data on file, Ethicon Inc. Study Report for in vitro evaluation of microbial barrier properties of DERMABOND ProTape. Su, 06TR071 **2.** Data on file, Ethicon Inc. In-vitro study to evaluate the ability of PRINEO™ Skin Closure System to kill bacteria on contact. Bhende, 20110509. **3.** Data on file, Ethicon Inc. Study to compare the tissue holding strength of DERMABOND® PRINEO® 22 cm Skin Closure System (DP22) to conventional wound closure techniques. Kumar A. AST-2014-0246. **4.** Data on file, Ethicon Inc. Completion Report: Study to compare the tissue holding strength of PRINEO Skin Closure System with conventional wound closure techniques. Kumar A. AST-2012- 0290. **5.** DERMABOND® PRINEO® Skin Closure System, Instructions for Use. **6.** Parvizi D, Friedl H,Schintler MV, et al. Use of 2-Octyl Cyanoacrylate Together with a Self-Adhering Mesh (Dermabond™ Prineo™) for Skin Closure Following Abdominoplasty: An Open, Prospective, Controlled, Randomized Clinical Study. Aesth Plast Surg. 2013;37:529-537. **7.** De Cock E, F, Mueller K, Tan R. Changing the surgical wound closure management pathway: time and supplies with PRINEO vs. standard of care for abdominoplasy surgery in Germany. Poster presented at: International Society for Pharmaocoeconomics and Outcomes Research, 11th Annual European Congress: November 2008; Athens, Greece.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

Technology that provides superior strength compared to skin staples or 4-0 suture

DERMABOND® PRINEO® Skin Closure System (22cm) was shown to be[1,2]*

- ~33% stronger when compared to the average strength of staples
- ~40% stronger when compared to the average strength of 4-0 suture



*Study performed ex vivo.

References 1. Data on file, Ethicon Inc. Study to compare the tissue holding strength of DERMABOND® PRINEO® 22 cm Skin Closure System (DP22) to conventional wound closure techniques. Kumar A. AST-2014-0246. **2.** Data on file, Ethicon Inc. Completion Report: Study to compare the tissue holding strength of PRINEO Skin Closure System with conventional wound closure techniques. Kumar A. AST-2012- 0290.

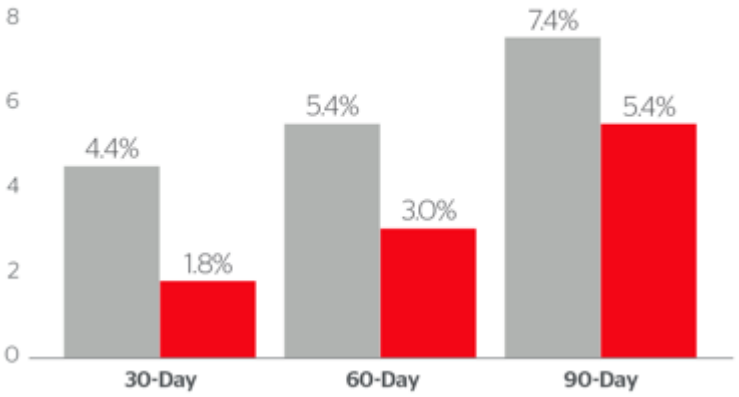
ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

DERMABOND® PRINEO® Skin Closure System

Total Knee Arthroplasty–Retrospective Study Results

DERMABOND PRINEO System is associated with statistically significant reduced length of stay, reduced probability of discharge to SNF* or other non-home setting, and reduced readmission rates when compared to skin staples[1]

30-60-90-DAY ALL-CAUSE READMISSION RATES[1]



$12,839[2] Potential cost savings by avoiding readmission within 30 days TKA

Skin Staples

DERMABOND PRINEO System

12% reduction

in length of stay

With DERMABOND PRINEO System[1]

31% reduction

in discharge to non-home setting

With DERMABOND PRINEO System[1]

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

*SNF= Skilled nursing facility

References 1. Data on file, Ethicon Inc. Stratafix & Prineo Study, RWE16_ETH_012. January 18, 2017. **2.** Data on file, Ethicon Inc. Inflated Costs of Hip and Knee Replacement Index Stays and 30d Readmission.xlsx.

An economic model demonstrates the resource savings potential of DERMABOND® PRINEO® Skin Closure System

In hip and knee arthroplasty, decreases in resource utilization in the post-acute care setting may lead to the following:

Hospital budgetary savings ranging from $28,349 to $39,809[1*†]

Cost savings of $56.70 to $79.62 per patient[1†‡]

*Assuming 500 hip and knee arthroplasties when standard or premium dressings are used, respectively, with sutures or staples
†In a 90-day economic model where DERMABOND PRINEO System is used in 60% of cases, sutures in 20% of cases, skin staples in 20% of cases
‡When standard or premium dressings are used, respectively, with sutures or staples

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

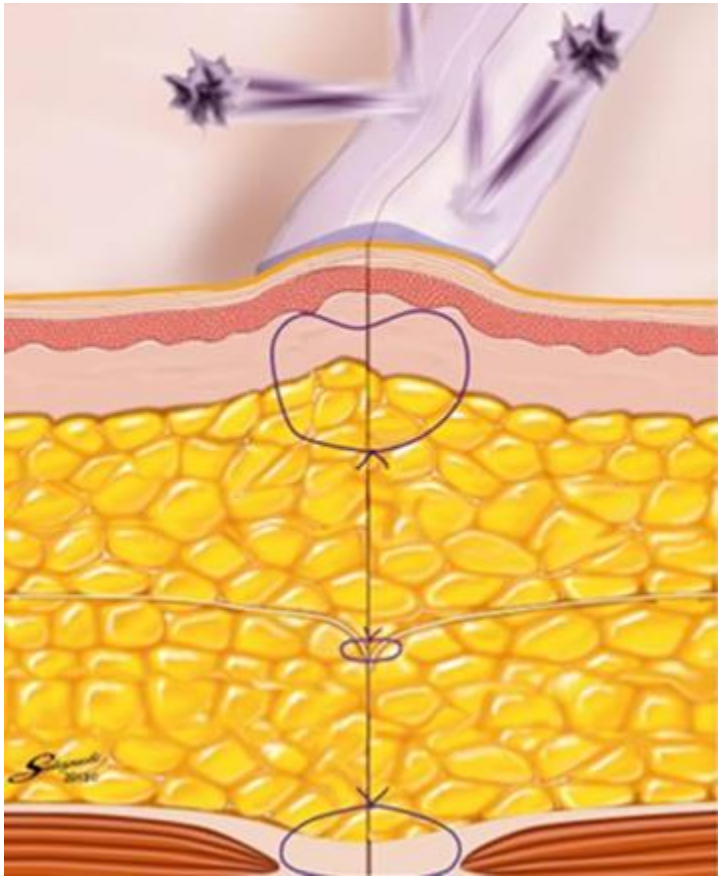
Reference 1. Sadik, K, Flener J, Gargiulo J, et al. A U.S. Hospital Budget Impact Analysis of a Skin Closure System Compared with Standard of Care in Hip and Knee Arthroplasty Poster Presented at the ISPOR 22nd Annual International Meeting, May 20-24, 2017.

Addressing risk factors associated with surgical site infection (SSI)

In healthcare today, reimbursement and reporting policies are placing increased pressure on hospitals to avoid SSI

DERMABOND ADVANCED® Topical Skin Adhesive and DERMABOND® PRINEO® Skin Closure System are proven 99% effective through 72 hours in vitro against organisms commonly responsible for SSIs, including[1,2]:

- *Staphylococcus epidermidis*
- *Staphylococcus aureus*
- *Escherichia coli*
- *Pseudomonas aeruginosa*
- *Enterococcus faecium*



References 1. Bhende S, Rothenburger S, Spangler DJ, Dito M. In vitro assessment of microbial barrier properties of DERMABOND® Topical Skin Adhesive. *Surg Infect (Larchmt)*. 2002;3:251-257. **2.** Data on file, Ethicon Inc. Study Report for in vitro evaluation of microbial barrier properties of DERMABOND ProTape. Su, 06TR071.

Wound closure is key to a great surgical outcome

Don’t settle for less than the innovation, efficacy, and evidence behind the DERMABOND® Portfolio

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery

For complete indications, contraindications, warnings, precautions, and adverse reactions, please reference full package insert.

ETHICON
PART OF THE Johnson & Johnson FAMILY OF COMPANIES
Shaping the future of surgery