Stanford



James Wall

Clinical Professor, Surgery - Pediatric Surgery

CLINICAL OFFICE (PRIMARY)

- **Pediatric Surgical Specialties Clinic**
  730 Welch Rd 2nd Fl
  Palo Alto, CA 94304
  Tel (650) 723-6439 **Fax** (650) 725-5577

ACADEMIC CONTACT INFORMATION

- **Clinical Administrative Assistant**
  Dalia Michel - Administrative Assistant Pediatric Surgery
  Email dmichel@stanfordchildrens.org
  Tel (650) 723-6439

Bio

BIO

Dr. James Wall is a pediatric surgeon who focuses on minimally-invasive approaches to children's surgery. He is an alumnus of the Stanford Biodesign Innovation Fellowship. His research focuses on how to educate others to design and develop health technology, as well as on flexible endoscopic surgery in children. He has developed multiple health technologies including a novel epidural needle, a protection device for umbilical catheters, and a wearable leg compression system. James currently holds the roles of director of Program Development for the Stanford Biodesign Innovation and Policy Fellowships and PI of the UCSF-Stanford Pediatric Device Consortium. James graduated from Tulane University with an undergraduate degree in biomedical engineering and has a masters in bioengineering from Stanford. He attended the University of Pennsylvania School of Medicine and completed a general surgery residency training program at the University of California, San Francisco. He completed a fellowship in minimally invasive surgery at the IRCAD institute in France followed by a Pediatric Surgery fellowship at Stanford.

CLINICAL FOCUS

- Pediatric Surgery
- Neonatal Surgery
- Minimally Invasive Pediatric Surgery
- Endoscopic Gastrointestinal Surgery
- Achalasia
- Anorectal Malformations
- Congenital Diaphragmatic Hernia
- Hirschsprung's Disease
- Congenital Pulmonary Airway Malformations
- Pectus Excavatum
- Pectus Carinatum

ACADEMIC APPOINTMENTS

- Clinical Professor, Surgery - Pediatric Surgery
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- PI, UCSF-Stanford Pediatric Device Consortium, (2018- present)
- Chairman Value Based Selection Committee, Lucile Packard Children's Hospital, (2015-2021)
- Director, Program Development, Biodesign Innovation Fellowship, Stanford Byers Center for Biodesign, (2019- present)
- Assistant Director, Biodesign Innovation Fellowship, Stanford Byers Center for Biodesign, (2014-2019)

HONORS AND AWARDS

- Pediatric Surgery Fellowship Teaching Award, Division of Pediatric Surgery (2016)

PROFESSIONAL EDUCATION

- Residency: UCSF Dept of General Surgery (2010) CA
- Internship: UCSF Dept of General Surgery (2009) CA
- Fellowship: Stanford University Pediatric Surgery (2013) CA
- Board Certification: Pediatric Surgery, American Board of Surgery (2015)
- Board Certification: General Surgery, American Board of Surgery (2010)
- Medical Education: University of Pennsylvania (2003) PA
- Biodesign Fellowship, Stanford Byers Center for Biodesign (2007)
- Masters of Bioengineering, Stanford University (2008)

LINKS

- Stanford Byers Center for Biodesign: http://biodesign.stanford.edu/bdn/index.jsp
- Pediatric Health Technology Incubator: http://pediatricsurgery.stanford.edu/research/JWResearch.html
- UCSF - Stanford Pediatric Device Consortium: https://www.pediatricdeviceconsortium.org/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Health Technology Innovation

Teaching

COURSES

2023-24

- Biodesign Fundamentals: MED 175B, MED 275B (Spr)
- Senior Capstone Design I: BIOE 141A (Aut)
- Senior Capstone Design II: BIOE 141B (Win)

STANFORD ADVISEES

Med Scholar Project Advisor

Kathy Hu

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Pediatric Surgery (Fellowship Program)

Publications

PUBLICATIONS

- **Trends and surgical outcomes of laparoscopic versus open pyloromyotomy.** *Surgical endoscopy*
  Kethman, W. C., Harris, A. H., Hawn, M. T., Wall, J. K.
  2018
- **Advanced minimal access surgery in infants weighing less than 3kg: A single center experience.** *Journal of pediatric surgery*
  Wall, J. K., Sinclair, T. J., Kethman, W., Williams, C., Albanese, C., Sylvester, K. G., Bruzoni, M.
  2017
- **Initial experience with peroral endoscopic myotomy for treatment of achalasia in children.** *Journal of pediatric surgery*
  Kethman, W. C., Thorson, C. M., Sinclair, T. J., Berquist, W. E., Chao, S. D., Wall, J. K.
  2017
- **Endoscopic Division of Duodenal Web Causing Near Obstruction in 2-Year-Old with Trisomy 21** *JOURNAL OF LAPAROENDOSCOPIC & ADVANCED SURGICAL TECHNIQUES*
  Wood, L. S., Kastenberg, Z., Sinclair, T., Chao, S., Wall, J. K.
  2016; 26 (5): 413-417
- **Endoscopic Submucosal Dissection of a Large Hamartoma in a Young Child.** *Journal of pediatric gastroenterology and nutrition*
  Wall, J., Esquivel, M., Bruzoni, M., Wright, R., Berquist, W., Albanese, C.
  2016; 62 (1): e5-7
- **Biodesign process and culture to enable pediatric medical technology innovation** *SEMINARS IN PEDIATRIC SURGERY*
  Wall, J., Wynne, E., Krummel, T.
  2015; 24 (3): 102-106
- **Initial Results of Endoscopic Gastrocutaneous Fistula Closure in Children Using an Over-the-Scope Clip.** *Journal of laparoendoscopic & advanced surgical techniques. Part A*
  Wright, R., Abrajano, C., Koppolu, R., Stevens, M., Nyznyk, S., Chao, S., Bruzoni, M., Wall, J.
  2015; 25 (1): 69-72
- **Prenatal imaging and postnatal presentation, diagnosis and management of congenital lung malformations.** *Current opinion in pediatrics*
  Wall, J., Coates, A.
  2014; 26 (3): 315-319
- **Introduction of the per-oral endoscopic myotomy technique to pediatric surgical practice** *Journal of Pediatric Surgery Case Reports*
  Chao, S., Russo, M., Wright, R., Rivas, H., Wall, J.
  2014
- **A Prospective Randomized Trial of Ultrasound- vs Landmark-Guided Central Venous Access in the Pediatric Population.** *Journal of the American College of Surgeons*
  Bruzoni, M., Slater, B. J., Wall, J., St Peter, S. D., Dutta, S.
  2013; 216 (5): 939-943
- **Virtual Neck Exploration for Parathyroid Adenomas A First Step Toward Minimally Invasive Image-Guided Surgery** *JAMA SURGERY*
  D'Agostino, J., Wall, J., Soler, L., Vix, M., Duh, Q., Marescaux, J.
  2013; 148 (3): 232-238
- **Optimizing Orthopaedic Trauma Implant Pricing Through a Data-Driven and Surgeon-Integrated Approach.** *Journal of orthopaedic trauma*
  Seltzer, R., Johnson, J. R., McFarlane, K., Chawla, A., Chamberlain, S., Kohler, M., Sheth, K., Wall, J. K., Bishop, J., Gardner, M., Shea, K. G.
  2022

- **The utility of endoscopic functional luminal imaging (EndoFLIP) in the diagnosis and management of children with achalasia.** *Journal of pediatric surgery*
  Rafeeqi, T., Salimi-Jazi, F., Cunningham, A., Wall, J.
  2022
- **The Value of Scientific Publications in Surgical Device Innovation.** *Surgical innovation*
  Song, A., Rensi, S. E., Tarquinio, A. G., Cahan, E., de Ruijter, V. E., Wall, J. K.
  2022: 15533506221143267
- **Does healthcare system device volume correlate with price paid for spinal implants: a cross-sectional analysis of a national purchasing database.** *BMJ open*
  Cahan, E., McFarlane, K., Segovia, N., Chawla, A., Wall, J., Shea, K.
  2022; 12 (4): e057547
- **Development and in-vitro characterization of a novel fetal vesicoamniotic shunt - the Vortex Shunt.** *Prenatal diagnosis*
  Sheth, K. R., Danzer, E., Johnson, E., Wall, J. K., Blumenfeld, Y. J.
  1800
- **Hospital Value Committees: The Role of the Surgeon in New Technology Adoption.** *Surgical innovation*
  Perl, J. R., Sheth, K. R., Shea, K. G., Wall, J.
  2021: 15533506211031094
- **Quantification of US Food and Drug Administration Premarket Approval Statements for High-Risk Medical Devices With Pediatric Age Indications.** *JAMA network open*
  Lee, S. J., Cho, L., Klang, E., Wall, J., Rensi, S., Glicksberg, B. S.
  2021; 4 (6): e2112562
- **Negative pressure patient isolation device to enable non-invasive respiratory support for COVID-19 and beyond.** *BMJ Innovations*
  August, A., Bolhouse, M., Rice, B., Wall, J.
  2020: 292-296
- **The design and evaluation of a novel algorithm for automated preference card optimization.** *Journal of the American Medical Informatics Association : JAMIA*
  Scheinker, D., Hollingsworth, M., Brody, A., Phelps, C., Bryant, W., Pei, F., Petersen, K., Reddy, A., Wall, J.
  2021
- **The Value of Surgical Data-Impact on the Future of the Surgical Field.** *Surgical innovation*
  August, A. T., Sheth, K. n., Brandt, A. n., deRuijter, V. n., Fuerch, J. H., Wall, J. n.
  2021: 15533506211003538
- **Opportunities for Regulatory Changes to Promote Pediatric Device Innovation in the United States: Joint Recommendations From Pediatric Innovator Roundtables.** *IEEE journal of translational engineering in health and medicine*
  Sanger, T., Chang, A., Feaster, W., Taraman, S., Afari, N., Beauregard, D., Dethlefs, B., Ghere, T., Kabeer, M., Tolomiczenko, G., Billig, M., Brophy, J., Eskandanian, et al
  2021; 9: 4800105
- **Treating children with achalasia using per -oral endoscopic myotomy (POEM): Twenty-one cases in review**
  Wood, L. S. Y., Chandler, J. M., Portelli, K. E., Taylor, J. S., Kethman, W. C., Wall, J. K.
  W B SAUNDERS CO-ELSEVIER INC.2020: 1006–12
- **Mechanical Compression Augments Venous Flow Equal to Intermittent Pneumatic Compression.** *Journal of orthopaedic research : official publication of the Orthopaedic Research Society*
  Amanatullah, D. F., Shah, H. N., Johnson, B., Wall, J.
  2020
- **Treating children with achalasia using per-oral endoscopic myotomy (POEM): Twenty-one cases in review.** *Journal of pediatric surgery*
  Wood, L. S., Chandler, J. M., Portelli, K. E., Taylor, J. S., Kethman, W. C., Wall, J. K.
  2020
- **Per Oral Pyloromyotomy for Treatment of Gastroparesis in a Pediatric Patient** *Journal of Pediatric and Gastroenterology and Nutrition Reports*
  August, A., Landisch, R., Hassan, M., Wall, J.

2020; 2 (2)

- **Stanford's Biodesign Innovation program: Teaching opportunities for value-driven innovation in surgery.** *Surgery*
  Augustin, D. A., Yock, C. A., Wall, J., Lucian, L., Krummel, T., Pietzsch, J. B., Azagury, D. E.
  2019
- **Novel Neonatal Umbilical Catheter Protection and Stabilization Device in In vitro Model of Catheterized Human Umbilical Cords: Effect of Material and Venting on Bacterial Colonization.** *American journal of perinatology*
  Wood, L. S., Fuerch, J. H., Dambkowski, C. L., Chehab, E. F., Torres, S., Shih, J. D., Venook, R., Wall, J. K.
  2019
- **The Digital Surgeon: How Big Data, Automation, and Artificial Intelligence Will Change Surgical Practice.** *Journal of pediatric surgery*
  Wall, J., Krummel, T.
  2019
- **Cutaneous Patches to Monitor Myoelectric Activity of the Gastrointestinal Tract in Postoperative Pediatric Patients.** *Pediatric gastroenterology, hepatology & nutrition*
  Taylor, J. S., de Ruijter, V., Brewster, R., Navalgund, A., Axelrod, L., Axelrod, S., Dunn, J. C., Wall, J. K.
  2019; 22 (6): 518-526
- **Prolonged esophageal foreign body: Management strategies in the setting of complicated tracheoesophageal fistula** *JOURNAL OF PEDIATRIC SURGERY CASE REPORTS*
  Kiyosaki, K., Wall, J., Sidell, D. R.
  2019; 48
- **3D Optical Imaging for Pectus Excavatum Assessment.** *The Annals of thoracic surgery*
  Taylor, J. S., Madhavan, S. n., Szafer, D. n., Pei, A. n., Koppolu, R. n., Barnaby, K. n., Wall, J. K., Chao, S. D.
  2019
- **Algorithm for Calculating Haller Index for Pectus Excavatum Using 3-Dimensional Optical Scanning**
  Taylor, J. S., Szafer, D., Madhavan, S., Hasseini, S., Pei, A., Koppolu, R., Barnaby, K. D., Danzer, E., Wall, J. K., Chao, S.
  ELSEVIER SCIENCE INC.2018: S192
- **A Simplified Method for Three-Dimensional Optical Imaging and Measurement of Patients with Chest Wall Deformities.** *Journal of laparoendoscopic & advanced surgical techniques. Part A*
  Szafer, D., Taylor, J. S., Pei, A., de Ruijter, V., Hosseini, H., Chao, S., Wall, J.
  2018
- **A Simplified Method for Three-Dimensional Optical Imaging and Measurement of Patients with Chest Wall Deformities**
  Szafer, D., Taylor, J. S., Pei, A., de Ruijter, V., Hosseini, H., Chao, S., Wall, J.
  MARY ANN LIEBERT, INC.2019: 267–71
- **Initial experience with peroral endoscopic myotomy for treatment of achalasia in children** *JOURNAL OF PEDIATRIC SURGERY*
  Kethman, W. C., Thorson, C. M., Sinclair, T. J., Berquist, W. E., Chao, S. D., Wall, J. K.
  2018; 53 (8): 1532–36
- **Trends and surgical outcomes of laparoscopic versus open pyloromyotomy** *SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES*
  Kethman, W. C., Harris, A. H. S., Hawn, M. T., Wall, J. K.
  2018; 32 (7): 3380–85
- **How Good Ideas Die: Understanding Common Pitfalls of Medtech Innovation** *MEDICAL INNOVATION: CONCEPT TO COMMERCIALIZATION*
  Blevins, K. S., Azagury, D. E., Wall, J. K., Chandra, V., Wynne, E. K., Krummel, T. M.
  edited by Behrns, K. E., Gingles, B., Sarr, M. G.
  2018: 117–27
- **Dilation of Esophageal Stricture in a Pediatric Patient Using Functional Lumen Imaging Probe Technology Without the Use of Fluoroscopy.** *Journal of pediatric gastroenterology and nutrition*
  Taylor, J. S., Danzer, E. n., Berquist, W. E., Wall, J. K.
  2018

- **Trends and Surgical Outcomes of Laparoscopic vs Open Pyloromyotomy in the United States**
  Kethman, W., Sox-Harris, A., Hawn, M. T., Wall, J. K.
  ELSEVIER SCIENCE INC.2017: E141

- **Advanced minimal access surgery in infants weighing less than 3kg: A single center experience.** *Journal of pediatric surgery*
  Wall, J. K., Sinclair, T. J., Kethman, W., Williams, C., Albanese, C., Sylvester, K. G., Bruzoni, M.
  2017

- **The Impact of Postgraduate Health Technology Innovation Training: Outcomes of the Stanford Biodesign Fellowship** *ANNALS OF BIOMEDICAL ENGINEERING*
  Wall, J., Hellman, E., Denend, L., Rait, D., Venook, R., Lucian, L., Azagury, D., Yock, P. G., Brinton, T. J.
  2017; 45 (5): 1163-1171

- **A multidisciplinary approach to laparoscopic sleeve gastrectomy among multiethnic adolescents in the United States.** *Journal of pediatric surgery*
  Jaramillo, J. D., Snyder, E. n., Farrales, S. n., Stevens, M. n., Wall, J. K., Chao, S. n., Morton, J. n., Pratt, J. S., Hammer, L. n., Shepard, W. E., Bruzoni, M. n.
  2017

- **The Impact of Postgraduate Health Technology Innovation Training: Outcomes of the Stanford Biodesign Fellowship.** *Annals of biomedical engineering*
  Wall, J., Hellman, E., Denend, L., Rait, D., Venook, R., Lucian, L., Azagury, D., Yock, P. G., Brinton, T. J.
  2016

- **Advanced Minimal Access Surgery in Infants Weighing Less Than 3 Kilograms: A Single Center Experience**
  Sinclair, T., Wall, J. K., Albanese, C., Sylvester, K. G., Bruzoni, M.
  ELSEVIER SCIENCE INC.2016: E153

- **A Multidisciplinary Approach to Laparoscopic Sleeve Gastrectomy Among Multiethnic Adolescents in the United States**
  Jaramillo, J. D., Snyder, E., Farrales, S., Wall, J. K., Chao, S., Hammer, L. D., Albanese, C., Morton, J. M., Bruzoni, M.
  ELSEVIER SCIENCE INC.2016: E153

- **Case Report: Rapid staged abdominal closure using Gore-Tex (R) mesh as a bridge to primary omphalocele sac closure** *JOURNAL OF PEDIATRIC SURGERY CASE REPORTS*
  Kethman, W. C., Sinclair, T. J. C., Abrajano, C. T., Chao, S., Wall, J. K.
  2016; 9: 37–39

- **Salvage of a failed open gastrocutaneous fistula repair with an endoscopic over-the-scope clip** *JOURNAL OF PEDIATRIC SURGERY CASE REPORTS*
  Jaramillo, J., Hyun, J., Abrajano, C., Koppolu, R., Chao, S., Hartman, G., Wall, J.
  2016; 8: 40–41

- **Large intra-thoracic desmoid tumor with airway compression: A case report and review of the literature** *JOURNAL OF PEDIATRIC SURGERY CASE REPORTS*
  Robinson, T. D., Bruzoni, M., Than, P., Halabi, S., Wall, J.
  2016; 5: 15–18

- **Ultrasound-Guided Percutaneous Vein Access for Placement of Broviac Catheters in Extremely Low Birth Weight Neonates: A Series of 3 Successful Cases** *JOURNAL OF LAPAROENDOSCOPIC & ADVANCED SURGICAL TECHNIQUES*
  Dambkowski, C. L., Abrajano, C. T., Wall, J.
  2015; 25 (11): 958-960

- **Long-term follow-up of laparoscopic transcutaneous inguinal herniorraphy with high transfixation suture ligature of the hernia sac.** *Journal of pediatric surgery*
  Bruzoni, M., Jaramillo, J. D., Kastenberg, Z. J., Wall, J. K., Wright, R., Dutta, S.
  2015; 50 (10): 1767-1771

- **Challenges and climate of business environment and resources to support pediatric device development** *SEMINARS IN PEDIATRIC SURGERY*
  Iqbal, C. W., Wall, J., Harrison, M. R.
  2015; 24 (3): 107-111

- **Congenital peribronchial myofibroblastic tumor: case report of an asymptomatic infant with a rapidly enlarging pulmonary mass and review of the literature.** *Annals of clinical and laboratory science*
  Brock, K. E., Wall, J., Esquivel, M., Newman, B., Marina, N., Albanese, C., Hazard, F. K.
  2015; 45 (1): 83-89

- **Long-term follow-up of laparoscopic transcutaneous inguinal herniorraphy with high transfixation suture ligature of the hernia sac** *Journal Pediatric Surgery*
  Bruzoni, M., Jaramillo, J. D., Kastenberg, Z. J., Wall, J., Wright, R. K., Dutta, S.
  2015

- **Thoracoscopic repair of esophageal atresia with distal tracheoesophageal fistula and a proximal type-H tracheoesophageal fistula** *Journal of Pediatric Surgery Case Reports*
  Kastenberg, Z. J., Wall, J. K., Bruzoni, M.
  2014; 2 (5): 232-235

- **Complete resection of a rare intrahepatic variant of a choledochal cyst** *JOURNAL OF PEDIATRIC SURGERY*
  Salles, A., Kastenberg, Z. J., Wall, J. K., Visser, B. C., Bruzoni, M.
  2013; 48 (3): 652-654

- **Successful extracorporeal membrane oxygenation treatment for pheochromocytoma-induced acute cardiac failure** *AMERICAN JOURNAL OF EMERGENCY MEDICINE*
  Sojod, G., Diana, M., Wall, J., D'Agostino, J., Mutter, D., Marescaux, J.
  2012; 30 (6)

- **An Original Endoluminal Magnetic Anastomotic Device Allowing Pure NOTES Transgastric and Transrectal Sigmoidectomy in a Porcine Model: Proof of Concept** *SURGICAL INNOVATION*
  Leroy, J., Perretta, S., Diana, M., Wall, J., Lindner, V., Harrison, M., Marescaux, J.
  2012; 19 (2): 109-116

- **Submucosal Endoscopic Myotomies for Esophageal Lengthening: A Novel Minimally Invasive Technique with Feasibility Study** *EUROPEAN JOURNAL OF PEDIATRIC SURGERY*
  Wall, J., Perretta, S., Diana, M., Dhumane, P., Haro, J. A., Dallemagne, B., Becmeur, F., Krummel, T., Marescaux, J.
  2012; 22 (3): 217-221

- **Prospective evaluation of peritoneal fluid contamination following transabdominal vs. transanal specimen extraction in laparoscopic left-sided colorectal resections** *SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES*
  Costantino, F. A., Diana, M., Wall, J., Leroy, J., Mutter, D., Marescaux, J.
  2012; 26 (6): 1495-1500

- **Totally Endoscopic Magnetic Enteral Bypass by External Guided Rendez-Vous Technique** *SURGICAL INNOVATION*
  Diana, M., Wall, J., Perretta, S., Dallemagne, B., Gonzales, K. D., Harrison, M. R., Agnus, V., Soler, L., Nicolau, S., Marescaux, J.
  2011; 18 (4): 317-320

- **Two novel endoscopic esophageal lengthening and reconstruction techniques** *SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES*
  Perretta, S., Wall, J. K., Dallemagne, B., Harrison, M., Becmeur, F., Marescaux, J.
  2011; 25 (10): 3440-3440

- **Original Technique to Close the Transrectal Viscerotomy Access in a NOTES Transrectal and Transgastric Segmental Colectomy** *SURGICAL INNOVATION*
  Leroy, J., Diana, M., Perretta, S., Wall, J., De Ruijter, V., Marescaux, J.
  2011; 18 (3): 193-200

- **Robotic Gastrectomy Is Safe and Feasible, but Real Benefits Remain Elusive** *ARCHIVES OF SURGERY*
  Wall, J., Marescaux, J.
  2011; 146 (9): 1092-1092

- **Laparo-Endoscopic Single-Site (LESS) with Transanal Natural Orifice Specimen Extraction (NOSE) Sigmoidectomy: A New Step before Pure Colorectal Natural Orifices Transluminal Endoscopic Surgery (NOTES (R))** *JOURNAL OF GASTROINTESTINAL SURGERY*
  Leroy, J., Diana, M., Wall, J., Costantino, F., D'Agostino, J., Marescaux, J.
  2011; 15 (8): 1488-1492

- **From Idea to Bedside: The Process of Surgical Invention and Innovation** *KEY TOPICS IN SURGICAL RESEARCH AND METHODOLOGY*
  Wall, J., Gurtner, G. C., Longaker, M. T.
  edited by Athanasiou, T., Debas, H., Darzi, A.
  2010: 647–56
- **Intellectual property and royalty streams in academic departments: Myths and realities** *SURGERY*
  Krummel, T. M., Shafi, B. M., Wall, J., Chandra, V., Mery, C., Gertner, M.
  2008; 143 (2): 183-191
- **Impact of multiple lymphatic channel drainage to a single nodal basin on outcomes in melanoma** *78th Annual Meeting of the Pacific-Coast-Surgical-Association*
  Wall, J. K., Florero, M., Accortt, N. A., Allen, R., Kashani-Sabet, M., Morita, E., Leong, S. P.
  AMER MEDICAL ASSOC.2007: 753–56