



Leah Backhus

Associate Professor of Cardiothoracic Surgery (Thoracic Surgery) at the Palo Alto Veterans Affairs Health Care System

CLINICAL OFFICES

- **Cardiothoracic Surgery**

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Bio

BIO

Leah Backhus trained in general surgery at the University of Southern California and cardiothoracic surgery at the University of California Los Angeles. She practices at Stanford Hospital and is Chief of Thoracic Surgery at the VA Palo Alto. Her surgical practice consists of general thoracic surgery with special emphasis on thoracic oncology and minimally invasive surgical techniques. She is also involved in research with the Thoracic Surgical Health Services Research group, and has grant funding through the Veterans Affairs Administration. Her current research interests are in imaging surveillance following treatment for lung cancer and cancer survivorship. She is a member of the National Lung Cancer Roundtable of the American Cancer Society serving as Chair of the Task Group on Lung Cancer in Women. She also serves as a professional member of the Patient Centered Outcomes Research Institute (PCORI) Advisory Panel on Improving Healthcare Systems. As an educator, Dr. Backhus is the Associate Program Director for the Thoracic Track Residency and serves on the ACGME Residency Review Committee for Thoracic Surgery which is the accrediting body for all cardiothoracic surgery training programs in the US.

CLINICAL FOCUS

- Lung Cancer
- Mesothelioma
- Pectus Excavatum
- Minimally Invasive Surgery
- Esophageal Cancer
- Lung Volume Reduction Surgery
- Mediastinal Masses
- Thoracic Surgery

ACADEMIC APPOINTMENTS

- Associate Professor - Med Center Line, Cardiothoracic Surgery
- Member, Cardiovascular Institute
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Co- Director, Thoracic Surgery Health Services Research, (2016- present)
- Associate Program Director, Thoracic Track, CT Surgery Residency Training Program, (2016- present)

HONORS AND AWARDS

- McGoon Award for Teaching in Thoracic Surgery, Thoracic Surgery Residents Association (2019)
- Levi Watkins Innovation and Leadership Scholarship, Thoracic Surgery Foundation (2019)
- Faculty Member, Alpha Omega Alpha Honor Society (2018-present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Vice Chair, ACGME Thoracic Surgery Resident Review Committee (2016 - 2019)
- Chair, ACGME Thoracic Surgery Resident Review Committee (2019 - present)
- Member, American Association for Thoracic Surgery (2019 - present)
- Director-At-Large, Society of Thoracic Surgeons (2019 - present)
- Chair, Task Group, Lung Cancer in Women; National Lung Cancer Roundtable (American Cancer Society) (2017 - present)
- Member, PCORI Advisory Panel on Improving Healthcare Systems (2016 - 2019)
- Member, Society of Thoracic Surgeons (2010 - present)
- Member, International Association for the Study of Lung Cancer, Membership Committee (2017 - present)
- Member, Western Thoracic Surgical Association (2011 - present)
- Member, American Society of Clinical Oncology (2016 - present)
- Fellow, American College of Surgeons (2013 - present)
- Member, Women in Thoracic Surgery (2010 - present)
- Member, American Medical Association (2016 - present)
- Member, Harkins Surgical Society (2010 - 2015)
- Executive Board Member, Artemis Medical Society (2012 - present)

PROFESSIONAL EDUCATION

- Residency: LACplusUSC Dept of Surgery (2007) CA
- Internship: LACplusUSC Dept of Surgery (2001) CA
- Medical Education: USC Clinical Child and Pediatric Psychology Internship (2000) CA
- Residency: UCLA Thoracic Surgery Residency (2009) CA
- MPH, University of Washington , Health Services
- Board Certification: Thoracic Surgery, American Board of Thoracic Surgery (2010)
- Board Certification: General Surgery, American Board of Surgery (2008)
- AB, Stanford University , Human Biology

COMMUNITY AND INTERNATIONAL WORK

- Artemis Medical Society

LINKS

- Stanford Thoracic Surgery Services: <http://med.stanford.edu/ctsurgery/clinical-care/thoracic-surgery-services.html>
- Make an Appointment: <http://med.stanford.edu/ctsurgery/contact-us.html#division-of-thoracic-surgery>

- Stanford Thoracic Surgery Clinical Research Program: <http://med.stanford.edu/thoracichsr.html>
- CTSNet Profile: <http://www.ctsnet.org/home/lbackhus>
- National Lung Cancer Roundtable: <https://nlcrt.org/about/task-groups/lung-cancer-in-women/>
- PCORI Advisory Panel Profile: <http://www.pcori.org/people/leah-backhus-md-mph-facs>
- STS Blog: Minimally Invasive Thoracic Surgery: http://ctsurgeypatients.org/from-maximal-to-minimal-in-thoracic-surgery-less-is-more%E2%80%A6but-not-always?_cldee=amFja2JveWRAc3RhbmZvcuZWV1&recipientid=contact-c0a6939f199fde11acbf001438bfc3fb-fc21bc8b34b94900bfce3aadf2ee0845&esid=4a0a1bcb-6f03-e711-80d5-00155d24b707
- STS Building Your Academic Career: https://youtu.be/_Rvs_UaZTeY
- STS Blog: Motherhood and Cardiothoracic Surgery: <https://ctsurgeypatients.org/how-we-balance-motherhood-and-cardiothoracic-surgery>
- Dr. Backhus on Doc McStuffins: <https://www.youtube.com/watch?v=gkwYeIFFcAk>
- Artemis Medical Society Profile: <http://www.artemismedicalsociety.org/dr-leah-backhus/>

Publications

PUBLICATIONS

- **Thoracic Endometriosis Syndrome: A Review of Diagnosis and Management.** *JSL : Journal of the Society of Laparoendoscopic Surgeons* Nezhat, C., Lindheim, S. R., Backhus, L., Vu, M., Vang, N., Nezhat, A., Nezhat, C. ; 23 (3)
- **Report from the Workforce on Diversity & Inclusion - Society of Thoracic Surgeons Members' Bias Experiences.** *The Annals of thoracic surgery* Erhunmwunsee, L., Backhus, L. M., Godoy, L., Edwards, M. A., Cooke, D. T. 2019
- **Unconscious Bias: Addressing the Hidden Impact on Surgical Education.** *Thoracic surgery clinics* Backhus, L. M., Lui, N. S., Cooke, D. T., Bush, E. L., Enumah, Z., Higgins, R. 2019; 29 (3): 259–67
- **STS, ESTS and JACS survey on surveillance practices after surgical resection of lung cancer.** *Interactive cardiovascular and thoracic surgery* Pompili, C., Edwards, M., Bhandari, P., Novoa, N., Hasegawa, S., Yoshino, I., Chida, M., Brunelli, A., Naunheim, K., Backhus, L. 2019
- **Optimizing health before elective thoracic surgery: systematic review of modifiable risk factors and opportunities for health services research** *JOURNAL OF THORACIC DISEASE* Stokes, S. M., Wakeam, E., Antonoff, M. B., Backhus, L. M., Meguid, R. A., Odell, D., Varghese, T. K. 2019; 11: S537–S554
- **An Exploration of Myths, Barriers and Strategies for Improving Diversity Among STS Members.** *The Annals of thoracic surgery* Backhus, L. M., Kpodonu, J., Romano, J. C., Pelletier, G., Preventza, O., Cooke, D. T. 2019
- **Optimizing health before elective thoracic surgery: systematic review of modifiable risk factors and opportunities for health services research.** *Journal of thoracic disease* Stokes, S. M., Wakeam, E., Antonoff, M. B., Backhus, L. M., Meguid, R. A., Odell, D., Varghese, T. K. 2019; 11 (Suppl 4): S537–S554
- **Thirty-day unplanned postoperative inpatient and emergency department visits following thoracotomy.** *The Journal of surgical research* Shaffer, R., Backhus, L., Finnegan, M. A., Remington, A. C., Kwong, J. Z., Curtin, C., Hernandez-Boussard, T. 2018; 230: 117–24
- **Bundled Strong for Surgery Optimization Targets Strongly Linked to Cardiac Surgery Outcomes** Burdon, T., Bhandari, P., Marshall, N., Harris, A., Fann, J. I., Burdon, T. A., Backhus, L. M. ELSEVIER SCIENCE INC.2018: S42
- **Thirty-day unplanned postoperative inpatient and emergency department visits following thoracotomy** *JOURNAL OF SURGICAL RESEARCH* Shaffer, R., Backhus, L., Finnegan, M. A., Remington, A. C., Kwong, J. Z., Curtin, C., Hernandez-Boussard, T.

2018; 230: 117–24

- **Culture of Safety and Gender Inclusion in Cardiothoracic Surgery** *ANNALS OF THORACIC SURGERY*
Backhus, L. M., Fann, B. E., Hui, D. S., Cooke, D. T., Berfield, K. S., Moffatt-Bruce, S. D.
2018; 106 (4): 951–58
- **Culture of Safety and Gender Inclusion in Cardiothoracic Surgery.** *The Annals of thoracic surgery*
Backhus, L. M., Fann, B. E., Hui, D. S., Cooke, D. T., Berfield, K. S., Moffatt-Bruce, S. D.
2018
- **Induction therapy for locally advanced distal esophageal adenocarcinoma: Is radiation Always necessary?**
Liou, D. Z., Backhus, L. M., Lui, N. S., Shrager, J. B., Berry, M. F.
MOSBY-ELSEVIER.2018: 2697–2705
- **Intraoperative costs of video-assisted thoracoscopic lobectomy can be dramatically reduced without compromising outcomes** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Richardson, M. T., Backhus, L. M., Berry, M. F., Vail, D. G., Ayers, K. C., Benson, J. A., Bhandari, P., Teymourtash, M., Shrager, J. B.
2018; 155 (3): 1267–+
- **Induction therapy for locally advanced distal esophageal adenocarcinoma: Is radiation Always necessary?** *The Journal of thoracic and cardiovascular surgery*
Liou, D. Z., Backhus, L. M., Lui, N. S., Shrager, J. B., Berry, M. F.
2018
- **Patients reported outcomes in thoracic surgery** *JOURNAL OF THORACIC DISEASE*
Pompili, C., Absalom, K., Velikova, G., Backhus, L.
2018; 10 (2): 703–6
- **Protocol and pilot testing: The feasibility and acceptability of a nurse-led telephone-based palliative care intervention for patients newly diagnosed with lung cancer** *CONTEMPORARY CLINICAL TRIALS*
Reinke, L. F., Vig, E. K., Tartaglione, E. V., Backhus, L. M., Gunnink, E., Au, D. H.
2018; 64: 30–34
- **Unhealthy alcohol use is associated with postoperative complications in veterans undergoing lung resection.** *Journal of thoracic disease*
Graf, S. A., Zeliadt, S. B., Rise, P. J., Backhus, L. M., Zhou, X. H., Williams, E. C.
2018; 10 (3): 1648–56
- **Progress in the Management of Early-Stage Non-Small Cell Lung Cancer in 2017.** *Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer*
Donington, J. S., Kim, Y. T., Tong, B., Moreira, A. L., Bessich, J., Weiss, K. D., Colson, Y. L., Wigle, D., Osarogiagbon, R. U., Zweig, J., Wakelee, H., Blasberg, J., Daly, et al
2018; 13 (6): 767–78
- **Presence of Even a Small Ground-Glass Component in Lung Adenocarcinoma Predicts Better Survival** *CLINICAL LUNG CANCER*
Berry, M. F., Gao, R., Kunder, C. A., Backhus, L., Khuong, A., Kadoch, M., Leung, A., Shrager, J.
2018; 19 (1): E47–E51
- **Survival and risk factors for progression after resection of the dominant tumor in multifocal, lepidic-type pulmonary adenocarcinoma**
Gao, R. W., Berry, M. F., Kunder, C. A., Khuong, A. A., Wakelee, H., Neal, J. W., Backhus, L. M., Shrager, J. B.
MOSBY-ELSEVIER.2017: 2092–+
- **Occam's Razor versus Hickam's Dictum** *ANNALS OF THE AMERICAN THORACIC SOCIETY*
Newman, T. A., Takasugi, J. E., Matute-Bello, G., Virgin, J. B., Backhus, L. M., Adamson, R.
2017; 14 (11): 1709–10
- **Disparities in kidney transplantation across the United States: Does residential segregation play a role?** *American journal of surgery*
Olufajo, O. A., Adler, J. T., Yeh, H., Zeliadt, S. B., Hernandez, R. A., Tullius, S. G., Backhus, L., Salim, A.
2017
- **Effect of EGFR Mutations on Survival in Patients following Surgical Resection of Lung Adenocarcinoma**
Laidlaw, G., Gao, R., Ayers, K., Backhus, L., Berry, M., Shrager, J.

ELSEVIER SCIENCE INC.2017: S751

- **The Importance of Patient Recall within Cancer Survivorship Care for Improved Post-Treatment Surveillance in Lung Cancer Survivors**
Backhus, L., Reinke, L., Au, D., Zeliadt, S., Edwards, T., Roy, U., Mantel, S., Jacobson, M., Ferris, A.
ELSEVIER SCIENCE INC.2017: S1111–S1112
- **Video-assisted thoracoscopic diaphragm plication using a running suture technique is durable and effective.** *journal of thoracic and cardiovascular surgery*
Demos, D. S., Berry, M. F., Backhus, L. M., Shrager, J. B.
2016
- **Imaging in Lung Transplantation: Surgical Considerations of Donor and Recipient.** *Radiologic clinics of North America*
Backhus, L. M., Mulligan, M. S., Ha, R., Shriki, J. E., Mohammed, T. H.
2016; 54 (2): 339-353
- **Assessment and Management of Symptoms for Outpatients Newly Diagnosed With Lung Cancer** *AMERICAN JOURNAL OF HOSPICE & PALLIATIVE MEDICINE*
Reinke, L. F., Feemster, L. C., Backhus, L. M., Gyls-Colwell, I., Au, D. H.
2016; 33 (2): 178-183
- **Imaging in Lung Transplantation Surgical Considerations of Donor and Recipient** *RADIOLOGIC CLINICS OF NORTH AMERICA*
Backhus, L. M., Mulligan, M. S., Ha, R., Shriki, J. E., Mohammed, T. H.
2016; 54 (2): 339-?
- **Imaging surveillance and survival for surgically resected non-small-cell lung cancer** *JOURNAL OF SURGICAL RESEARCH*
Backhus, L. M., Farjah, F., Liang, C. J., He, H., Varghese, T. K., Au, D. H., Flum, D. R., Zeliadt, S. B.
2016; 200 (1): 171-176
- **Gaps in Guideline-Concordant Use of Diagnostic Tests Among Lung Cancer Patients** *ANNALS OF THORACIC SURGERY*
Flanagan, M. R., Varghese, T. K., Backhus, L. M., Wood, D. E., Mulligan, M. S., Cheng, A. M., Flum, D. R., Farjah, F.
2015; 100 (6): 2006-2012
- **Failure to rescue and pulmonary resection for lung cancer** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Farjah, F., Backhus, L., Cheng, A., Englum, B., Kim, S., Saha-Chaudhuri, P., Wood, D. E., Mulligan, M. S., Varghese, T. K.
2015; 149 (5): 1365-1371
- **External validation of a prediction model for pathologic N2 among patients with a negative mediastinum by positron emission tomography** *JOURNAL OF THORACIC DISEASE*
Farjah, F., Backhus, L. M., Varghese, T. K., Manning, J. P., Cheng, A. M., Mulligan, M. S., Wood, D. E.
2015; 7 (4): 576-?
- **Impact of primary caregivers on long-term outcomes after lung transplantation** *JOURNAL OF HEART AND LUNG TRANSPLANTATION*
Mollberg, N. M., Farjah, F., Howell, E., Ortiz, J., Backhus, L., Mulligan, M. S.
2015; 34 (1): 59-64
- **Predictors of Imaging Surveillance for Surgically Treated Early-Stage Lung Cancer** *ANNALS OF THORACIC SURGERY*
Backhus, L. M., Farjah, F., Zeliadt, S. B., Varghese, T. K., Cheng, A., Kessler, L., Au, D. H., Flum, D. R.
2014; 98 (6): 1944-1952
- **Appropriateness of Imaging for Lung Cancer Staging in a National Cohort** *JOURNAL OF CLINICAL ONCOLOGY*
Backhus, L. M., Farjah, F., Varghese, T. K., Cheng, A. M., Zhou, X., Wood, D. E., Kessler, L., Zeliadt, S. B.
2014; 32 (30): 3428-U266
- **Ninety-Day Costs of Video-Assisted Thoracic Surgery Versus Open Lobectomy for Lung Cancer** *ANNALS OF THORACIC SURGERY*
Farjah, F., Backhus, L. M., Varghese, T. K., Mulligan, M. S., Cheng, A. M., Alfonso-Cristancho, R., Flum, D. R., Wood, D. E.
2014; 98 (1): 191-196
- **Lung Resection Outcomes and Costs in Washington State: A Case for Regional Quality Improvement** *ANNALS OF THORACIC SURGERY*
Farjah, F., Varghese, T. K., Costas, K., Krishnadasan, B., Farivar, A. S., Hubka, M., Louie, B. E., Backhus, L. M., Chong, N., Gorden, J., Cheng, A. M., He, H., Flum, et al
2014; 98 (1): 175-181

- **Outcomes in lung transplantation after previous lung volume reduction surgery in a contemporary cohort** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Backhus, L., Sargent, J., Cheng, A., Zeliadt, S., Wood, D., Mulligan, M.
2014; 147 (5): 1678-?
- **Preoperative PET and the Reduction of Unnecessary Surgery Among Newly Diagnosed Lung Cancer Patients in a Community Setting** *JOURNAL OF NUCLEAR MEDICINE*
Zeliadt, S. B., Loggers, E. T., Slatore, C. G., Au, D. H., Hebert, P. L., Klein, G. J., Kessler, L. G., Backhus, L. M.
2014; 55 (3): 379-385
- **Management of Centrally Located Non-Small-Cell Carcinoma** *ONCOLOGY-NEW YORK*
Backhus, L. M., Wood, D. E.
2014; 28 (3): 215-221
- **Lymphovascular Invasion as a Prognostic Indicator in Stage I Non-Small Cell Lung Cancer: A Systematic Review and Meta-Analysis** *ANNALS OF THORACIC SURGERY*
Mollberg, N. M., Bennette, C., Howell, E., Backhus, L., Devine, B., Ferguson, M. K.
2014; 97 (3): 965-972
- **The Effect of Provider Density on Lung Cancer Survival Among Blacks and Whites in the United States** *JOURNAL OF THORACIC ONCOLOGY*
Backhus, L. M., Hayanga, A. J., Au, D., Zeliadt, S. B.
2013; 8 (5): 549-553
- **Radiographic evaluation of the patient with lung cancer: surgical implications of imaging.** *Current problems in diagnostic radiology*
Backhus, L., Puneet, B., Bastawrous, S., Mariam, M., Michael, M., Varghese, T.
2013; 42 (3): 84-98
- **Residential Segregation and Lung Cancer Mortality in the United States** *JAMA SURGERY*
Hayanga, A. J., Zeliadt, S. B., Backhus, L. M.
2013; 148 (1): 37-42
- **Comparison of Demographic Characteristics, Surgical Resection Patterns, and Survival Outcomes for Veterans and Nonveterans with Non-small Cell Lung Cancer in the Pacific Northwest** *JOURNAL OF THORACIC ONCOLOGY*
Zeliadt, S. B., Sekaran, N. K., Hu, E. Y., Slatore, C. C., Au, D. H., Backhus, L., Wu, D. Y., Crawford, J., Lyman, G. H., Dale, D. C.
2011; 6 (10): 1726-1732
- **Perioperative cyclooxygenase 2 inhibition to reduce tumor cell adhesion and metastatic potential of circulating tumor cells in non-small cell lung cancer** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Backhus, L. M., Sievers, E., Lin, G. Y., Castanos, R., Bart, R. D., Starnes, V. A., Bremner, R. M.
2006; 132 (2): 297-303
- **Pleural space problems after living lobar transplantation** *JOURNAL OF HEART AND LUNG TRANSPLANTATION*
Backhus, L. M., Sievers, E. M., Schenkel, F. A., Barr, M. L., Cohen, R. G., Smith, M. A., Starnes, V. A., Bremner, R. M.
2005; 24 (12): 2086-2090
- **Dimethyl celecoxib as a novel non-cyclooxygenase 2 therapy in the treatment of non-small cell lung cancer** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Backhus, L. M., Petasis, N. A., Uddin, J., Schonthal, A. H., Bart, R. D., Lin, Y., Starnes, V. A., Bremner, R. M.
2005; 130 (5): 1406-1412
- **Evaluation of cyclooxygenase-2 inhibition in an orthotopic murine model of lung cancer for dose-dependent effect** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Sievers, E. M., Bart, R. D., Backhus, L. M., Lin, Y. G., Starnes, M., Castanos, R., Starnes, V. A., Bremner, R. M.
2005; 129 (6): 1242-1249
- **Abnormal esophageal body function: Radiographic-manometric correlation** *AMERICAN SURGEON*
Fuller, L., Huprich, J. E., Theisen, J., Hagen, J. A., Crookes, P. F., DeMeester, S. R., Bremner, C. G., DeMeester, T. R., Peters, J. H.
1999; 65 (10): 911-914

PRESENTATIONS

- Women in Thoracic Surgery: US Perspective; In Co-Operation with Women In Thoracic Surgery - European Society of Thoracic Surgeons