Vascular Surgery:
More Than Just Glorified Plumbing and Pipes?

Vascular surgery encompasses the treatment of disease processes that affect blood vessels throughout the body outside of the heart and brain. This challenging spectrum of conduits that are intervened upon range in size from the aorta to microcirculation at the distal finger and toe tips. A revolution has occurred in our specialty over the past two decades, fueled by collaboration between clinicians, engineers, and entrepreneurs. Endovascular surgery now refers to treatment of all the same disease processes but from within the vessel. Development of ideas such as miniaturization, navigation, remote access, and flow all have obvious corollaries to the engineering world. The concept that vascular surgery was simply plumbing and replacement of pipes has given way to the modern field of restoration of vessels. We will review the evolution of the specialty, introduce concepts of innovation within the specialty, and identify needs for the next decade to improve the care of patients with vascular disorders.

Jason T. Lee, MD
Associate Professor of Surgery, Director of Endovascular Surgery
Program Director, Vascular Surgery Residency/Fellowship
Stanford University School of Medicine

Jason T. Lee, MD, received his undergraduate degree from Caltech in 1994, medical degree from UCSD, and completed surgical residency at Harbor-UCLA. He then completed a fellowship in vascular surgery at Stanford, and has been on the faculty there since 2006. Dr. Lee’s clinical interests include endovascular treatment of complex aortic aneurysms, carotid angioplasty/stenting, lower extremity revascularization, thoracic outlet syndrome, vascular disorders in high-performance athletes, and surgical education. An active researcher, Dr. Lee has participated in more than 15 clinical trials nationally, serving as principal investigator for trials examining new therapeutic strategies for managing cerebrovascular disease, limb salvage, renovascular hypertension, and aneurysm disease. Dr. Lee has collaborated extensively with industry partners over the past decade, helping to bring devices and innovation to market. Dr. Lee has authored more than 50 articles in peer-reviewed medical journals and many textbook chapters related to advanced vascular disease treatments and new technology, and has an active role in the leadership of national vascular surgery societies.