



Eri Fukaya

- Clinical Professor, Surgery - Vascular Surgery
- Clinical Professor, Medicine - Primary Care and Population Health

CLINICAL OFFICE (PRIMARY)

- **Heart and Vascular Clinic**

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

Dr. Fukaya practices Vascular Medicine at the Stanford Vascular Clinics and Advanced Wound Care Center. She received her medical education in Tokyo and completed her medical training both in the US and Japan. She joined Stanford in 2015.

Vascular Medicine covers a wide range of vascular disorders including chronic venous insufficiency, varicose veins, deep vein thrombosis, post thrombotic syndrome, peripheral artery disease, carotid artery disease, cardiovascular risk evaluation, fibromuscular dysplasia, rare vascular disease, lymphedema, arterial/venous/diabetic ulcers, and wound care.

Dr. Fukaya has a special interest in venous disease and started the Stanford Vascular and Vein Clinic in 2016.

Board Certified in Vascular Medicine

Board Certified in Internal Medicine

Board Certified in Internal Medicine (Japan)

Board Certified in Plastic and Reconstructive Surgery (Japan)

CLINICAL FOCUS

- Vascular Medicine
- Venous Disease
- Varicose Veins
- Wound Healing
- Peripheral Artery Disease
- Deep Vein Thrombosis
- Fibromuscular Dysplasia

- Internal Medicine

ACADEMIC APPOINTMENTS

- Clinical Professor, Surgery - Vascular Surgery
- Clinical Professor, Medicine - Primary Care and Population Health
- Member, Cardiovascular Institute

PROFESSIONAL EDUCATION

- MD, Tokyo Women's Medical University
- PhD, Tokyo Women's Medical University
- Fellowship, University of Pennsylvania , Vascular Medicine
- Residency, Beth Israel Medical Center, Lankenau Medical Center , Internal Medicine
- Residency, Tokyo Women's Medical University , Plastic and Reconstructive Surgery

Research & Scholarship

PROJECTS

- Genetics of Peripheral Vascular Disease
- FMD Registry
- Bioimpedance in Venous Leg Ulcers

Publications

PUBLICATIONS

- **Nonsurgical Management of Chronic Venous Insufficiency.** *The New England journal of medicine*
Fukaya, E., Kolluri, R.
2024; 391 (24): 2350-2359
- **Epidemiology and Genetics of Venous Thromboembolism and Chronic Venous Disease.** *Circulation research*
Baylis, R. A., Smith, N. L., Klarin, D., Fukaya, E.
2021; 128 (12): 1988-2002
- **Clinical and Genetic Determinants of Varicose Veins Prospective, Community-Based Study of approximate to 500 000 Individuals** *CIRCULATION*
Fukaya, E., Flores, A. M., Lindholm, D., Gustafsson, S., Zanetti, D., Ingelsson, E., Leeper, N. J.
2018; 138 (25): 2869–80
- **Leg bioimpedance as a biomarker in chronic venous disease.** *Vascular medicine (London, England)*
Fukaya, E., Lopez, N.
2026; 31 (3): 381-382
- **Clinical Spectrum of Hypersensitivity and Granulomatous Reactions to VenaSeal™ Cyanoacrylate Closure.** *Dermatitis : contact, atopic, occupational, drug*
Shah, M. M., Fukaya, E., Honari, G., Chen, J. K., Bae, G. H.
2026: 17103568261446233
- **Peripheral artery disease in diabetes** *FRONTIERS IN ENDOCRINOLOGY*
Amin, S., Fukaya, E., Athavale, A.
2026; 17: 1811582
- **Results of the American Venous Forum research retreat on C2 disease confirms that the biology of varicose veins including etiology, progression, and novel therapeutics, as well as disparities, are top research priorities.** *Journal of vascular surgery. Venous and lymphatic disorders*

Sachdev-Ost, U., Obi, A., Fukaya, E., Chaar, C. O., Robinson, S., Rodriguez, L., Nguyen, K., Henke, P., Van Rij, A., Jacobs, B.
2026: 102463

- **The American Venous Forum Clinical Practice Guideline on the Care of Patients with Upper Extremity Deep Venous Thrombosis.** *Journal of vascular surgery. Venous and lymphatic disorders*
Malgor, R. D., Etkins, Y., Mouawad, N. J., Le, L., Sullivan, L., Xenos, E., Rodriguez, L., Vemuri, C., Fukaya, E., Lal, B. K., Furtado Neves, P. J., Aziz, F., Sadek, et al
2026: 102461
- **From biobank to prediction: polygenic risk scores for peripheral artery disease.** *European heart journal*
Fukaya, E., Leeper, N. J.
2026
- **Nuts and bolts of venous and lymphatic care: Practical strategies from the Society for Vascular Medicine's 2025 Vascular Scientific Sessions.** *Vascular medicine (London, England)*
Fukaya, E., Kolluri, R.
2026: 1358863X251411883
- **Reply.** *Journal of vascular surgery. Venous and lymphatic disorders*
Fukaya, E.
2026; 14 (1): 102305
- **Peripheral Artery Disease in US Primary Care Practices: A Retrospective EHR-Based Analysis from 2018 to 2022.** *Journal of general internal medicine*
Nriagu, V. C., Hao, S., Kamdar, N. S., Fukaya, E., Wang, X., Kallis, K., Rehkopf, D. H., Ross, E. G.
2025
- **Generation of an induced pluripotent stem cell line from a patient with Varicose veins.** *Stem cell research*
Noishiki, C., Manhas, A., Adkar, S. S., Tripathi, D., Wu, D., Sadat, S., Liu, L., Sallam, K., Leeper, N. J., Fukaya, E., Sayed, N.
2025; 89: 103850
- **Comprehensive Approach to Management of Lipedema** *CURRENT TREATMENT OPTIONS IN CARDIOVASCULAR MEDICINE*
Athavale, A., Fukaya, E., Aday, A. W.
2025; 27 (1)
- **Disaster-associated Venous Thromboembolism Countermeasures in Japan: Insights from Past Major Earthquakes.** *Journal of vascular surgery. Venous and lymphatic disorders*
Kamada, K., Fukaya, E., Iwata, E., Uchida, D., Mo, M., Hanzawa, K., Ueda, S., Azuma, N.
2025: 102312
- **2025 SCAI Clinical Practice Guidelines for the Management of Chronic Venous Disease: This statement was endorsed by the Society for Vascular Medicine (SVM).** *Journal of the Society for Cardiovascular Angiography & Interventions*
Attaran, R. R., Edwards, M. L., Arena, F. J., Bunte, M. C., Carr, J. G., Castro-Dominguez, Y., Espinoza, A., Feldman, D. N., Firestone, S., Fukaya, E., Harth, K., Hawkins, B. M., Jayasuriya, et al
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- **Exploration of Underlying Mechanisms of Vascular Ehlers-Danlos Syndrome in Patients' iPSCs-Derived Endothelial Cells**
Liu, L., Wu, D., Bharucha, N., Turbes, N., Noishiki, C., Manhas, A., Tripathi, D., Adkar, S., Lee, J., Fukaya, E., Leeper, N., Karakikes, I., Sayed, et al
LIPPINCOTT WILLIAMS & WILKINS.2025
- **SCAI Technical Review on Management of Chronic Venous Disease.** *Journal of the Society for Cardiovascular Angiography & Interventions*
Attaran, R., Edwards, M., Bunte, M. C., Castro-Dominguez, Y., Fukaya, E., Harth, K., Kim, P., Firestone, S., Senerth, E., Morgan, R. L.
2025; 4 (8): 103730
- **Funding for vascular medicine fellowships: Learning from the past and planning for the future.** *Vascular medicine (London, England)*
Eberhardt, R. T., Abola, M. T., Fukaya, E., Ghose, T., Gupta, K., Hamburg, N., Rogers, R. K., Wells, B. J.
2025: 1358863X251353771
- **To bleed or not to bleed: Observing risk of concomitant nonsteroidal anti-inflammatory drug and oral anticoagulant use after venous thromboembolism.** *Journal of vascular surgery. Venous and lymphatic disorders*
Iceton, J. B., Fukaya, E.

2025; 13 (3): 102206

- **Venous leg ulcers: A review of clinical variability and differential diagnosis.** *Vascular medicine (London, England)*
Kolluri, R., Fukaya, E., Krishna, S., Dean, S.
2025: 1358863X251319243
- **Safety Assessment of Cyanoacrylate Closure for Treatment of Varicose Veins in a Large-Scale National Survey in Japan.** *Journal of vascular surgery. Venous and lymphatic disorders*
Umetsu, M., Hirokawa, M., Fukaya, E., Teshima, E., Kusagawa, H., Nishibe, T., Mo, M., Ogawa, T.
2024: 102160
- **Venous Insufficiency: Wound Management.** *Current cardiology reports*
Iceton, J. B., Haro, A., Lau, J., Fukaya, E.
2024
- **Mechanochemical chemically assisted ablation of varicose veins for venous insufficiency: American vein and lymphatic society position statement.** *Phlebology*
Blebea, J., Fukaya, E., Moore, K. S., Lurie, F.
2024: 2683555241276554
- **Generation of two iPSC lines from vascular Ehlers-Danlos Syndrome (vEDS) patients carrying a missense mutation in COL3A1 gene.** *Stem cell research*
Manhas, A., Tripathi, D., Noishiki, C., Wu, D., Liu, L., Sallam, K., Lee, J. T., Fukaya, E., Sayed, N.
2024; 79: 103485
- **Peripheral Artery Disease: Molecular Mechanisms and Novel Therapies.** *Arteriosclerosis, thrombosis, and vascular biology*
Athavale, A., Fukaya, E., Leeper, N. J.
2024; 44 (6): 1165-1170
- **A PUZZLING CASE OF MULTIPLE DISSECTIONS**
Kumar, G., Fukaya, E.
ELSEVIER SCIENCE INC.2024: 3741
- **Factors Associated with Lack of Clinical Improvement after Vein Ablation in the VQI.** *Journal of vascular surgery. Venous and lymphatic disorders*
Pinto, P., Fassler, M., Obi, A., Osborne, N. H., Robinson, S. T., Jacobs, B. N., Aziz, F., Nguyen, K. P., Gwozdz, A. M., Rodriguez, L. E., Fukaya, E., Sachdev, U., Iyad Ochoa Char, et al
2024: 101884
- **Serious Adverse Events with Cyanoacrylate Closure of Varicose Veins: An Initial Report from a Large-Scale National Survey in Japan.** *Annals of vascular diseases*
Umetsu, M., Hirokawa, M., Fukaya, E., Teshima, E., Kusagawa, H., Nishibe, T., Nemoto, H., Mo, M., Ogawa, T.
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- **Generation of induced pluripotent stem cell line from a patient suffering from arterial calcification due to deficiency of CD73 (ACDC).** *Stem cell research*
Tripathi, D., Manhas, A., Noishiki, C., Wu, D., Adkar, S., Sallam, K., Fukaya, E., Leeper, N. J., Sayed, N.
2023; 75: 103285
- **Utilizing an induced pluripotent stem cell platform to model arterial calcification resulting from deficiency of CD73**
Noishiki, C., Alsaigh, T., Wu, D., Adkar, S., Chandra, V., Klarin, D., Lee, J., Fukaya, E., Leeper, N., Sayed, N.
SAGE PUBLICATIONS LTD.2023: 499-500
- **Early observations on large language models for venous disease**
Athavale, A., Fukaya, E., Baier, J.
SAGE PUBLICATIONS LTD.2023: 510
- **A Comparison of Below-Knee versus Above-Knee Endovenous Ablation of Varicose Veins.** *Journal of vascular surgery. Venous and lymphatic disorders*
Bai, H., Gokani, V., Storch, J. B., Kibrik, P., Aziz, F., Sachdev, U., Fukaya, E., Ochoa Char, C. I., Obi, A. T., Ting, W.
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- **The Variations and Inconsistencies in Venous Ablation Coverage Policies between Single State and Multistate Carriers in the United States.** *Journal of vascular surgery. Venous and lymphatic disorders*
Pinto, P., Fukaya, E., Rodriguez, L. E., Obi, A., Ting, W., Aziz, F., Nguyen, K., Murphy, E. H., Ochoa Chara, C. I.
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- **A Systematic Review on Ablation Techniques for Larger Saphenous Veins in Patients with Symptomatic Superficial Venous Disease.** *Journal of vascular surgery. Venous and lymphatic disorders*
Athavale, A., Monahan, D., Fukaya, E.
2023
- **SVM Communications: Venous Taskforce update and Society announcements.** *Vascular medicine (London, England)*
Ahsan, S. T., Esponda, O., Li, W., Amini, R., Shaydakov, M., Wheeler, J., Fukaya, E.
2023: 1358863X231195630
- **Varicose Veins: Approach, Assessment, and Management to the Patient with Chronic Venous Disease.** *The Medical clinics of North America*
Sasaki, V. S., Fukaya, E.
2023; 107 (5): 895-909
- **The 2023 Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society Clinical Practice Guidelines for the Management of Varicose Veins of the Lower Extremities. Part II.** *Journal of vascular surgery. Venous and lymphatic disorders*
Gloviczki, P., Lawrence, P. F., Wasan, S. M., Meissner, M. H., Almeida, J., Brown, K. R., Bush, R. L., Di Iorio, M., Fish, J., Fukaya, E., Gloviczki, M. L., Hingorani, A., Jayaraj, et al
2023
- **A Nurse-Led Care Delivery App and Telehealth System for Patients Requiring Wound Care: Mixed Methods Implementation and Evaluation Study.** *JMIR formative research*
Brown-Johnson, C. G., Lessios, A. S., Thomas, S., Kim, M., Fukaya, E., Wu, S., Kling, S. M., Brown, G., Winget, M.
2023; 7: e43258
- **The potential of chatbots in chronic venous disease patient management.** *JVS-vascular insights*
Athavale, A., Baier, J., Ross, E., Fukaya, E.
2023; 1
- **Images in Vascular Medicine: Vascular complications in a young patient with vascular Ehlers-Danlos syndrome.** *Vascular medicine (London, England)*
Suresh Kumar, G., Pariani, M., Liang, D. H., Fukaya, E.
2023: 1358863X231170652
- **Sticking to the same thromboprophylaxis for surgical sickle cell disease patients.** *Journal of vascular surgery. Venous and lymphatic disorders*
Fukaya, E.
2023; 11 (3): 553-554
- **Cyanoacrylate Glue Reactions: A Systematic Review, Cases, and Proposed Mechanisms.** *Journal of vascular surgery. Venous and lymphatic disorders*
Athavale, A., Thao, M., Sasaki, V. S., Lewis, M., Chandra, V., Fukaya, E.
2023
- **An Alternate Explanation.** *The New England journal of medicine*
Alsaigh, T., Dhaliwal, G., Fukaya, E., Leeper, N. J., Sayed, N.
2023; 388 (14): 1318-1324
- **VIEW-VLU Observational Study of the Effect of Varithena on Wound Healing in the Treatment of Venous Leg Ulcers.** *Journal of vascular surgery. Venous and lymphatic disorders*
Shao, M. Y., Harlin, S., Chan, B., Santangelo, K., Fukaya, E., Stoughton, J., Kolluri, R.
2023
- **Developing ways to compare and contrast for deep venous interventions.** *Journal of vascular surgery. Venous and lymphatic disorders*
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2023; 11 (2): 432
- **Complications of vascular Ehlers-Danlos syndrome**

- Fukaya, E., Kumar, G., Pariani, M., Liang, D. H.
SAGE PUBLICATIONS LTD.2022: NP3
- **Approach to venous leg ulcers- should we determine subtypes?**
Fukaya, E., Lopez, N. G., Klein, A.
SAGE PUBLICATIONS LTD.2022: 649
 - **Guideline medication adherence patterns and physical activity in people with peripheral artery disease: a multiethnic study of atherosclerosis study**
Chakoma, T. L., Alsaigh, T., Fukaya, E., Allison, M., Ross, E.
SAGE PUBLICATIONS LTD.2022: 647-648
 - **Increasing access, quality, and convenience of care through a specialty-matched telenursing platform for vascular and wound patients - a pilot study**
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 - **Increasing access, quality, and convenience of care through a specialty-matched telenursing platform for vascular and wound patients - a pilot study**
Thomas, S., Fukaya, E., Kim, M., Winget, M., Brown-Johnson, C., Lestoquoy, A., Veruttipong, D.
SAGE PUBLICATIONS LTD.2022: 656
 - **Characteristics of Venous Leg Ulcer Patients at a Tertiary Wound Care Center.** *Journal of vascular surgery. Venous and lymphatic disorders*
Klein, A., Ennis, W., Fukaya, E.
2022
 - **The 2022 Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society Clinical Practice Guidelines for the Management of Varicose Veins of the Lower Extremities.: Part I. Duplex Scanning and Treatment of Superficial Truncal Reflux.** *Journal of vascular surgery. Venous and lymphatic disorders*
Gloviczki, P., Lawrence, P. F., Wasan, S. M., Meissner, M. H., Almeida, J., Brown, K., Bush, R. L., Di Iorio, M., Fish, J., Fukaya, E., Gloviczki, M. L., Hingorani, A., Jayaraj, et al
2022
 - **Vascular Disease Patient Information Page: Venous leg ulcers.** *Vascular medicine (London, England)*
Fukaya, E., Klein, A., Lau, J., Ratchford, E. V.
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 - **Varicose Veins and Chronic Venous Disease.** *Cardiology clinics*
Alsaigh, T., Fukaya, E.
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 - **US National Trends in Vascular Surgical Practice During the COVID-19 Pandemic.** *JAMA surgery*
Ho, V. T., Eberhard, A. V., Asch, S. M., Leeper, N. J., Fukaya, E., Arya, S., Ross, E. G.
2021
 - **Incentivizing physical activity through activity monitoring interventions in PAD - a pilot study.** *VASA. Zeitschrift fur Gefasskrankheiten*
Fukaya, E., Welden, S., Bukari, A., Khan, Z., Leeper, N., Mohler, E.
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 - **Identifying dietary and nutritional risk factors for symptomatic peripheral arterial disease using the UK biobank cohort study**
Kaufman, A., Fukaya, E., Leeper, N., Ross, E.
SAGE PUBLICATIONS LTD.2020: NP5
 - **The impact of low-dose anticoagulation therapy on peripheral artery disease: insights from the VOYAGER trial.** *Cardiovascular research*
Fukaya, E. n., Leeper, N. J.
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 - **Er:YAG Laser versus Sharp Debridement in Management of Chronic Wounds: Effects on Pain and Bacterial Load.** *Wound repair and regeneration : official publication of the Wound Healing Society [and] the European Tissue Repair Society*
Hajhosseini, B., Chiou, G. J., Dori, G., Fukaya, E., Chandra, V., Meyer, S., Gurtner, G. C.
2019

- **Clinical and Genetic Determinants of Varicose Veins.** *Circulation*
Fukaya, E., Flores, A. M., Lindholm, D., Gustafsson, S., Zanetti, D., Ingelsson, E., Leeper, N. J.
2018; 138 (25): 2869–80
- **Disparities as Predictors of Non-Healing in Lower Extremity Wounds**
George, E. L., Trang, K., Dua, A., Parsley, J. D., Robertson, R., Fukaya, E., Sen, S. K., Gurtner, G. C., Chandra, V.
ELSEVIER SCIENCE INC.2018: E248
- **Bioimpedance and New-Onset Heart Failure: A Longitudinal Study of >500 000 Individuals From the General Population** *JOURNAL OF THE AMERICAN HEART ASSOCIATION*
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- **Clinical and genetic determinants of varicose veins: a prospective, community-based prospective study of similar to 500,000 individuals**
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- **Incentivizing physical activity through activity monitoring interventions in PAD - a pilot study**
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- **Impact of Pocket Ultrasound Use by Internal Medicine Housestaff in the Diagnosis of Dyspnea** *JOURNAL OF HOSPITAL MEDICINE*
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- **Peripheral arterial disease, prevalence and cumulative risk factor profile analysis** *EUROPEAN JOURNAL OF PREVENTIVE CARDIOLOGY*
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- **Endothelial progenitor cell mobilization following acute wound injury** *WOUND REPAIR AND REGENERATION*
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- **Approach to diagnosing lower extremity ulcers** *DERMATOLOGIC THERAPY*
Fukaya, E., Margolis, D. J.
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- **Images in vascular medicine. Spontaneous celiac artery dissection.** *Vascular medicine*
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- **Heparin-induced thrombocytopenia: analysis of risk factors in medical inpatients** *BRITISH JOURNAL OF HAEMATOLOGY*
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- **Imaging of the superficial inferior epigastric vascular anatomy and preoperative planning for the SIEA flap using MDCTA** *JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY*
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- **Magnetic resonance angiography to evaluate septocutaneous perforators in free fibula flap transfer** *JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY*
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- **Monitoring Partial and Full Venous Outflow Compromise in a Rabbit Skin Flap Model** *PLASTIC AND RECONSTRUCTIVE SURGERY*

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2007; 23 (4): 205-211
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2007; 29 (2): 142-145
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