



## Randall Alley, BSc, CP, LP, FAAOP

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**Contact Information:**

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Randall Alley is CEO and Chief Prosthetist for biodesigns, a technology-driven high performance prosthetic facility specializing in the most advanced upper and lower limb patient care and product development.

Alley received his Bachelor of Science in Kinesiology and his prosthetic certificate from UCLA and is both a licensed and board certified prosthetist. Alley is the inventor of the revolutionary, patent-pending *High Fidelity Interface* (socket) system with Vector Enhanced Compression and Tissue Relief (VECTR) for both upper and lower limb prosthetic applications. This unique performance-enhancing interface system offers superior stability, comfort, range of motion, feedback and efficiency of movement, all while dissipating heat more effectively. He is also the creator of the widely used *XFrame* and *ACCI* (*Anatomically Contoured and Controlled Interface*), two upper limb prosthetic interfaces that brought superior biomechanical principles to socket design.

In addition to his lower limb prosthetic experience, Alley has nearly 20 years working with upper limb patients. As co-founder and former director for the world's largest upper limb prosthetic program, he traveled the U.S. and abroad working on complex upper limb cases and has trained hundreds of practitioners in upper limb prosthetic care, clinical techniques, and innovative interface designs.

In conjunction with his practice, Alley is working with DEKA Research as their prosthetic interface design consultant for the Defense Advanced Research Projects Agency's (DARPA) "Revolutionizing Prosthetics Project" chartered to develop the next generation upper limb prosthesis for the military (a.k.a. the "Luke Arm"). In addition to his clinical expertise, Alley conceived and helped developed Otto Bock's patented PushValve and MagValve for suction sockets (Red Dot Design Award 2009) and assisted in the development of TRS's BAHA and Sure-Lok for improved body powered harness control.

Alley serves on the boards of O&P Business News, the O&P Edge and the Amputee Coalition of America's (ACA) Upper Limb Loss Advisory Council. He is an adjunct professor at Cal State Dominguez Hill's Orthotic & Prosthetic program, is the former chair of the Academy's CAD/CAM and Upper Limb Prosthetic Society, a member of ISPO and a member of the National Athletic Trainer's Association.

Alley is an international lecturer, clinical columnist, and has contributed to five upper limb textbooks. He received a Certificate of Appreciation from the Department of the Army for his upper limb training of military medical personnel, the Chairman's Award, the Excellence in Innovation Award, and most recently was awarded with the Clinical Creativity Award from the American Academy of Orthotists & Prosthetists (AAOP).

Alley has appeared on national TV and in national and local magazines and newspapers.