

David J. Tanzer, MD

Dr. Tanzer discusses the differences between practicing ophthalmology in the military and the private sector and predicts how refractive surgery will evolve.



How did your career in medicine lead you to become a refractive surgeon in the military?

My father served for 20 years as a US Marine Corps fighter pilot, and I grew up with a strong desire to experience military aviation. After completing medical school at Georgetown University, where I was

fortunate to attend on a 4-year Navy Health Professions Scholarship Program scholarship and a transitional internship, I was privileged to serve as a US Navy flight surgeon. It was an honor to be accepted to the ophthalmology residency program at the Naval Medical Center in San Diego, and it was there that I met Steven Schallhorn, MD, the father of refractive surgery in the military. Steve had a tremendous influence on my decision to focus on refractive surgery for operational environments and aviators. Since retiring from the US Navy in 2011, I experience the greatest source of professional satisfaction when I treat a member of the military or someone who wants to join the service, because refractive surgery can enable that individual to be less encumbered by glasses or contact lenses.

What were the highlights of serving as the director of the US Navy Refractive Surgery Program?

Among the more than 60 studies of which I was involved, serving as the principal investigator for both the PRK and LASIK in US Naval Aviation studies was the greatest highlight. As a result of both studies, PRK and LASIK were approved surgical treatments for US Navy pilots.

Based on your experience, what are some striking differences between practicing ophthalmology in the military versus the private practice setting?

Refractive surgery in the military enables our warfighters to place themselves in harm's way and do their jobs more effectively without having to wear glasses or contact lenses. What is an inconvenience to a patient in private practice may be a matter of life and death to a military member. I continue to share in the joy of living spectacle-free with the

patients in my private practice, but the impact on their lives is much different.

Concepts such as "duty" and "honor" mean something incredibly important to those who serve their country. Unfortunately, there have been too many instances where I have not found the same level of integrity in private practice. That has been one of the greatest disappointments to me over the past 18 months since retiring from the US Navy.

How do you anticipate refractive surgery will evolve over the next 5 years?

Excimer and femtosecond lasers will continue to improve. We (surgeons and patients) are enjoying fantastic outcomes (uncorrected vision of 20/20 or better at 100%), as exhibited by the results presented from the LASIK in US Naval Aviator study.¹ Our diagnostics will improve, as will our ability to customize ablation profiles. We will better understand the optimal postoperative corneal shape (the integration of asphericity, Q factor, optical and transition zones, and other factors), higher-order aberrations, and neural adaptation to tailor the ablation profile. I look forward to being able to test drive an ablation profile through the use of adaptive optics and deformable mirrors to better assure myself (and my patient) that what the laser does to the cornea will be the perfect ablation profile for that individual (from the corneal surface to the occipital cortex).

We all look forward to finding a treatment for presbyopia. Although there are numerous treatment options today, no current treatment is perfect, all have potential drawbacks, and the best approach has yet to be developed.

What is your ideal vacation destination?

My wife and I honeymooned in Bora Bora, and I knew then that I had found paradise. My ideal vacation now would be to find someplace even more remote (with no cell phone towers!) and completely "switch it off" while enjoying the sun, surf, scuba diving, seafood, and the company of my beautiful bride. ■

1. Tanzer DJ, Brunstetter T, Zeber R, et al. A prospective evaluation of laser in situ keratomileusis in US Naval aviators. *J Cataract Refract Surg*. 2013. In press.