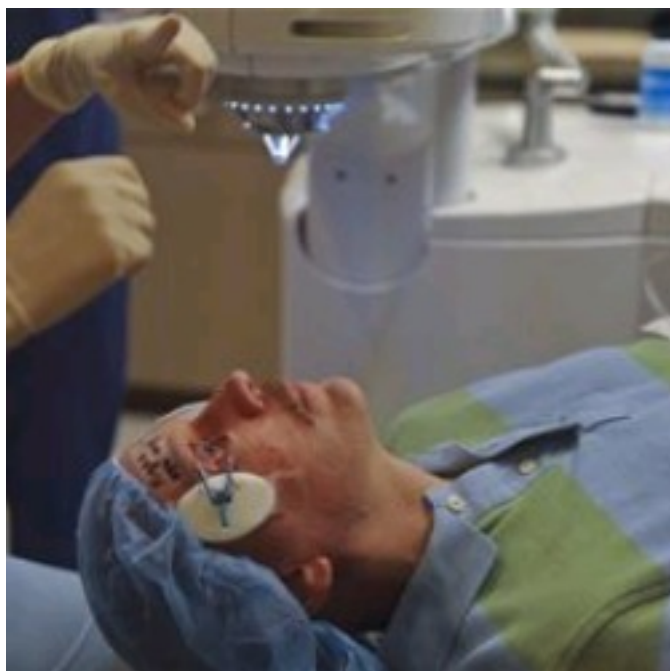


Ophthalmic Surgeons Employ Cutting-edge Technology

Staff Sgt. Vanessa Young



SAN ANTONIO (AFNS) -- Ophthalmic surgeons here are the first in the Defense Department to employ a state-of-the-art laser that will shorten recovery times for corneal transplantation.

Members of the ophthalmology department assigned the 59th Medical Wing at Lackland Air Force Base, Texas, now use a femtosecond laser to dissect human cornea tissue for cornea transplants or refractive surgery.

The laser produces a very short, (one-billionth of a second), intense pulse that gives ophthalmologists a hyper-accurate way of cutting the cornea tissue. Ophthalmic surgeons can program the laser to make very specific shapes that act like a tread pattern on the tissue.

For cornea transplants, the laser allows ophthalmic surgeons to design very specific interfaces between the donor tissue and the host, said Lt. Col. (Dr.) Charles Reilly, the chair of the department of ophthalmology for the 59th Medical Wing. These specific cuts improve healing and the speed of recovery, which makes the overall surgery much more successful.

The ophthalmic surgical team performed the first three corneal transplants using this technology three months ago.

"They are all doing just terrific and their visual recovery is just amazing," Doctor Reilly said.

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The normal recovery time for corneal transplantation patients is one year.

"The beauty of this laser is that we can start removing the sutures at a much earlier rate," Doctor Reilly said. "With this procedure, we hope we can cut (recovery time) down to six or seven months."

Since the inception of the corneal transplant technology in the 1950s, Wilford Hall ophthalmology surgeons have been some of the pioneers.

The ophthalmology team continues to be at the forefront of advancing the science of human cornea transplant, Doctor Reilly said.

"We are doing things here that not very many medical centers in the U.S. are capable of doing when it comes to eye surgery," Doctor Reilly said. "We're not standard of care; we're state of the art."

Having a premiere eye surgical program within the Air Force directly translates to the combat environment, he added.

"This new technology will play a huge role in visual recovery of our men and women in uniform who suffered eye injuries with corneal scars and other problems in pathology from (Operation Iraqi Freedom) and (Operation Enduring Freedom)," Doctor Reilly said.

The ophthalmologists here will play an even bigger role in the advancement of servicemembers' eye care when the Wilford Hall campus becomes the Vision Center of Excellence for DOD.

According to Doctor Reilly, under the San Antonio Military Medical Center concept, the center will serve a three-part mission: Research and eye care; education and largest eye clinic in DOD.

The 59th Medical Wing ophthalmology and optometry team will partner with their Army counterparts to not only create the largest eye center, but also the leader in education for eyes and the center for excellence for eye surgery and visual science.

"We're excited to bring the best of the best together and to offer the best surgery," he said. "It's almost unfair to be an eye surgeon in the Air Force right now because we have the best equipment and the best patients; it really is the melding of perfection."

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