



JACKSONVILLE: VISION DESTINATION FOR THE WORLD

New Artificial Cornea seen as Landmark in Eye Surgery

World-renowned Laser Vision (LASIK) and Corneo-Plastic Eye Surgeon, Dr. Arun C. Gulani has introduced Artificial Corneal transplant surgery right here in Jacksonville. Dr Gulani was the first eye surgeon in the State of Florida, and among only a handful in the world, who has been selected to perform this futuristic and complex surgery. Patients and doctors from across the world are looking forward to this super-specialized service here in Jacksonville from Dr. Gulani.

"I look at this as a landmark event in eye surgery," Gulani said. "What's the dream of eye surgeons? To make an artificial eye. This is the first step into what we always knew as science fiction." The cornea is an eye's window to the world. Light passes through this clear dome on the front of the eye, behind which are the pupil, iris and lens. The cornea helps focus light to the retina at the back of the eye.

"What's the dream of eye surgeons? To make an artificial eye."

Until recently, about 10 percent of all people who needed a new cornea had no hope of regaining their vision, Gulani said. Some had rejected transplanted corneas. Others had eyes so severely diseased or so scarred from accidents that a real cornea could not adhere and survive.

"A real cornea still needs nourishment and tears, a good foundation for tissue," Gulani said. The artificial cornea, which the U.S. Food and Drug Administration approved in May, isn't living tissue. All it needs to do is stay in place and stay intact. "In the past, artificial corneas haven't been able to do the job," Gulani said. Some models were prone to tearing or dissolving. So doctors over the last several years

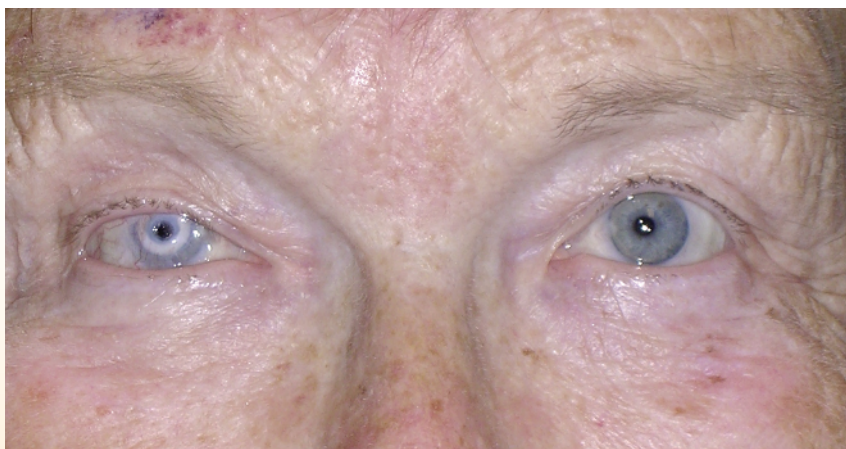


PREOPERATIVE Picture of a blind eye
Photo courtesy of Dr. Gulani

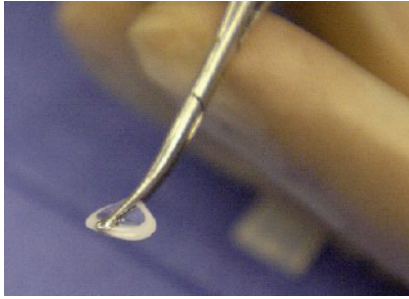
had largely abandoned their use. But the latest model, a water-based polymer manufactured by Australian company Argus Biomedical, "is stronger than its predecessors because it's one single piece rather than two separate pieces," said Argus clinical account manager Beth J. Spearman. The clear middle, which provides vision, is surrounded by a sort of micro-mesh that bio-chemically bonds over time with the eye's own tissue.

The artificial cornea has been used in human tests for four years, and about 80 percent of patients who received one were able to retain it. Dr. Gulani has modified the surgical technique and invented a complete set of instruments to improvise this surgery and taught his technique at the American Academy of Ophthalmology meeting in California to eye surgeons from all over the world. He is presently scheduled to teach a surgical course on Artificial Cornea and Advanced LASIK surgery in Paris (France) this Fall. "An artificial cornea costs about \$7,000. Medicare covers the procedure, as do private insurance companies, with a letter from a doctor," Gulani said. Putting in the cornea requires two outpatient surgeries under local or general anesthesia. Dr. Gulani has improvised performing the entire Stage two surgery without injections using eyedrops only.

He is working on a Stage three for this surgery wherein once the artificial cornea has settled, he shall use the very Laser he utilizes in his world



POSTOPERATIVE appearance with patient now seeing out of the right eye
Photo courtesy of Dr. Gulani



Artificial Cornea
Photo courtesy of
Dr. Gulani

renown LASIK services to recontour this material. He also wishes to incorporate the futuristic Wavefront concepts which have been recently published in his book chapter in the prestigious; *CLINICS OF NORTH AMERICA*.

Artificial corneas currently are being used only to treat some of the most complex and high-risk cases, in which all other available options have been exhausted. Many of these patients have undergone numerous surgeries, have extensive corneal scarring from an accident or progressive disease, or have rejected a corneal transplant from a human donor. "This may seem very selective in the type of patients it treats, but the reality is there are so many people across the U.S. waiting for something like this, I am excited to offer this surgery in the Jacksonville community," said Gulani.

The Gulani Vision Institute provides a full spectrum of specialized eye surgery from LASIK to reconstructive corneal transplants and provides itself as an Apex center for eye surgeons and patients seeking super-specialized care. Many patients have experienced vision restoration from correction of surgical complications, specialized Dry Eye care, Amniotic membrane (Human Placenta) reconstruction. Advanced LASIK and exclusive corneoplasty surgeries right here in Jacksonville.

Dr. Gulani is a leading consultant to the eye care industry. He has invented and created new surgical tools and has written many published articles, as well as having received numerous awards. He currently presides on the American National Standards panel, which sets the standard for the ophthalmic industry towards safe and effective eye care. He continues to teach at national meetings including the American Academy of Ophthalmology where he lectures and teaches courses along with delivering the Innovator's lecture for the benefit of fellow eye surgeons. He conducted teaching workshops and instructive courses with a world-renowned faculty at the National Congress in San Diego, California last month and is scheduled to teach in Europe, Australia and Asia in the latter half of this year. He has also been extensively interviewed in the medical and news media, including newspapers and television regarding his new concepts and teaching on various frontiers and clinical publications. He has co-authored a bookchapter in a recently released textbook *LASIK – Advances, Controversies and Customs* that features LASIK surgery in the 21st century.

FLORIDA HEALTHCARE FACTS AND STATISTICS

FLORIDA HEALTH STATISTICS - 2002

Births	205,580
Deaths	167,702
Heart Disease	49,062
Cancer	38,928
Stroke	10,243

FLORIDA HOSPITALS - 2003

Community Hospitals (Includes Satellites)	221
Community Hospital Beds	53,740
Percentage Government (24)	10.9%
Percentage Investor-Owned (95)	43%
Percentage Not-for-Profit (102)	46.2%
Psychiatric Hospitals	23
Rehabilitation Hospitals	15
Other Hospitals	26

PROGRAMS

Open Heart Programs	60
Trauma Hospitals	20
Statutory Rural Hospitals	29
Statutory Teaching Hospitals	06
All Teaching Hospitals	33
Children's Hospitals	09
Hospitals Closed Since 1995	46
Community Hospitals Closed	17

FIVE LARGEST HOSPITAL SYSTEMS

	Facilities
HCA Healthcare Systems - 10,329	42
Adventists Health System - 2,967	17
Tenet Health System - 4,650	15
HMA - 1,422	13
Baycare Health System - 2,020	08

UNINSURED IN FLORIDA - 2002

Total Uninsured, (non-elderly)	2.8 million
Percentage of population without Health Insurance	20.6%
Uninsured Children	8.5 Million
Percentage of Children without Health Insurance	11.6%

10 MOST COMMON REASONS FOR ADMISSION

Deliveries	113,619
Psychosis	88,721
Heart Failure	70,979
Chest Pain	66,753
COPD	46,724
Joint and Limb Reattachment	45,290
Pneumonia	44,081
Esophagitis, Gastroent and Misc. Digestive Disorders	41,703
Per Cardio Proc w/Coronary Artery Stent w/c	33,483
Specific Cerebrovascular Disorders Except Tia	30,103

HEALTHCARE WORKFORCE - 2003

Physicians	30,602
Licensed RNs	152,206
LPNs	46,765
Medical Technologists	8,846
Pharmacists	14,429
Radiation Therapist	887
Physicians per 100,000-Florida	281.3
Physicians per 100,000-USA	285.6