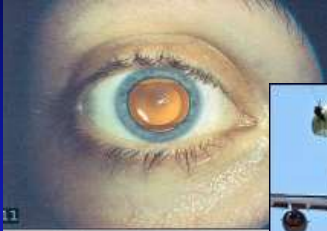


The Implantable Collamer Lens (ICL) : *Is it a Last Resort or a Premium Option?*



*Colonel Scott D. Barnes, MD
Former Chief of Ophthalmology and Refractive Surgery
Womack Army Medical Center, USA*

Military Disclaimer

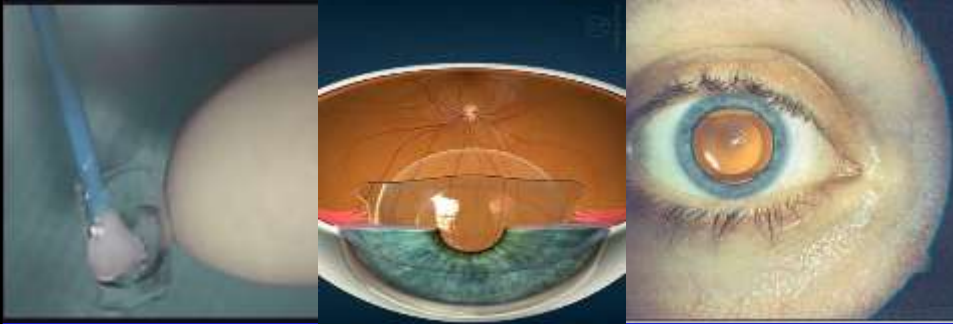
Left the US Army 5 months ago, after 30 years of service and 3000 ICLs. Joined Staar Surgical as the Chief Medical Officer



These views do not represent the “official” views of the Department of Defense, the US Army, or the US Government



Just What is an ICL and When to Use It



Implantable **C**ollamer **L**ens

Collagen + Polymer = Collamer

Why Not Just Choose Glasses?



BCGs = Birth control
glasses



“Cool” sunglasses

Why not Contact Lenses?

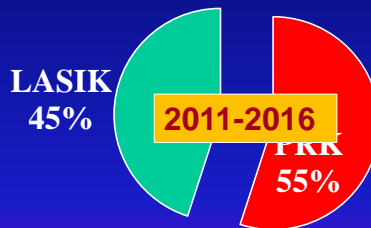
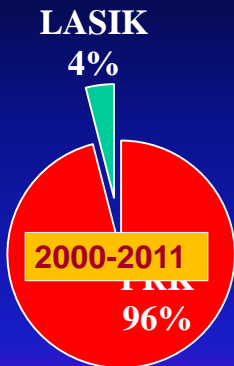
Austere Locations

Dirty environment

CL-related ulcers



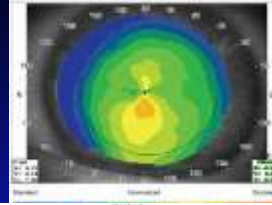
What About Laser Vision Correction (LVC)?



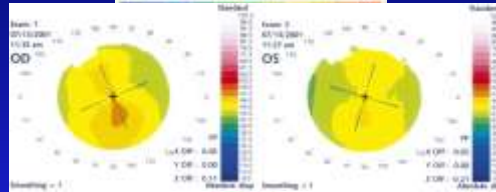
Over 65,000 at our center

Not everyone is a LVC Candidate

Thin, flat, or irregular corneas



19-22 y/o patient with
inferior steepening



Is this forme fruste KC?

Treat with laser or wait many
years for stability?



The Search for a Solution



GLASSES RK PRK LASIK **ICL ??**

21 Year History of Visian ICL

1997 CE mark/launch

1998 Current V4 design

2002 CE mark Toric ICL

2005 FDA approval (non-toric)
treatment range 3-16D myopia

2011 EVO center flow ICL

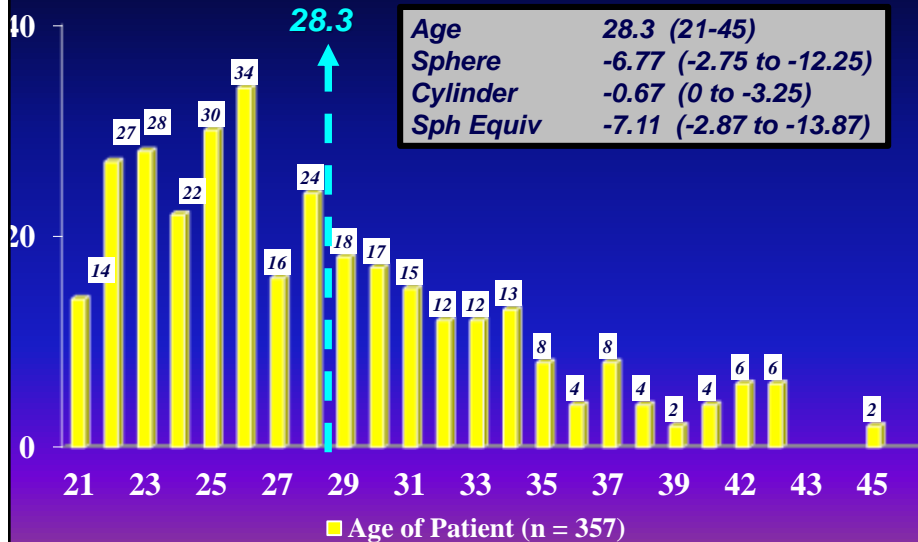


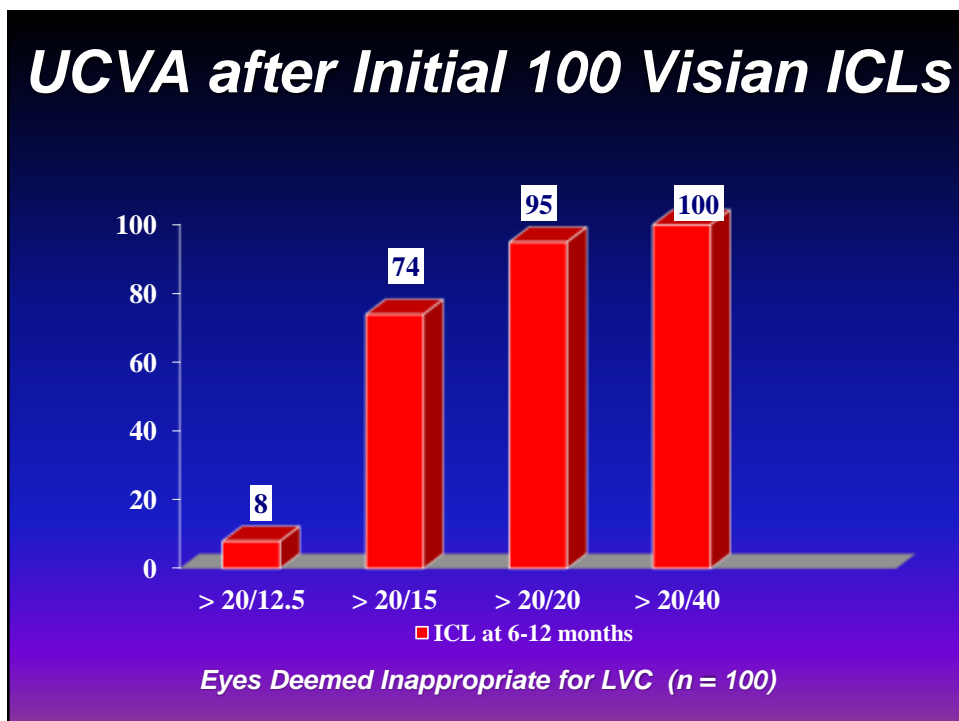
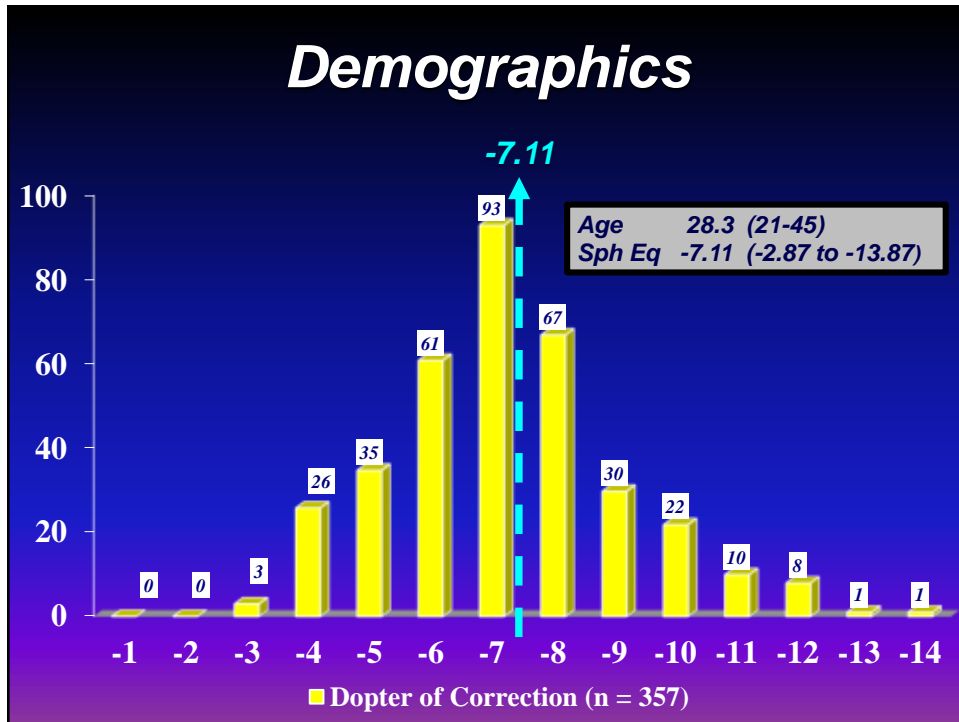
V4 MCL/Visian ICL™



EVO Visian ICL™ (V4c with CentraFlow)

Demographics





Patients' Opinion

Better Va than glasses – 99%

Better Va than contacts – 75%

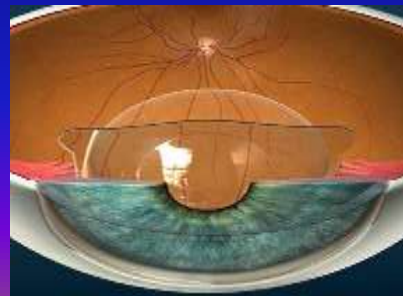
Would do it again – 99%

Would recommend ICL to a friend – 99%

Able to function better after ICL – 99%

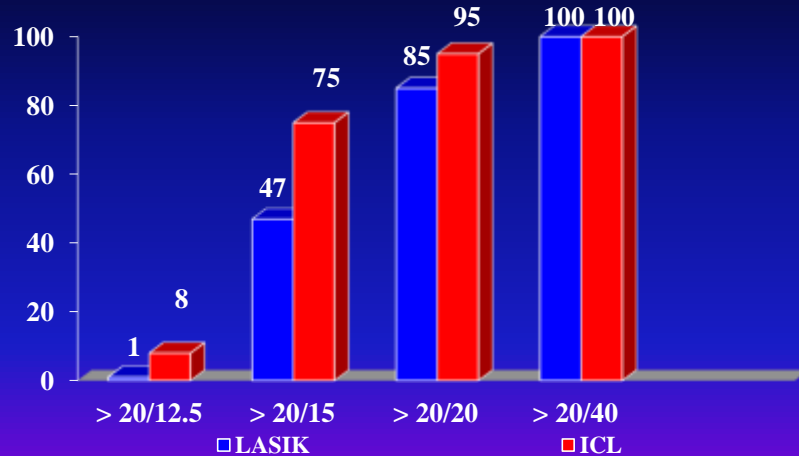


FemtoLASIK and Visian ICL



UCVA LASIK vs. ICL (6-12M)

Different Groups/Time periods



Age 28.1 (21-45)
Sph Eq -7.03 (-6.00 to -9.13)

Age 28.3 (21-45)
Sph Eq -7.11 (-2.87 to -13.87)

Why the Higher Quality Vision?

Corneal Shape

Location

Technology and
Magnification



Is the Altered Cornea the Problem?



Ideal "shape"



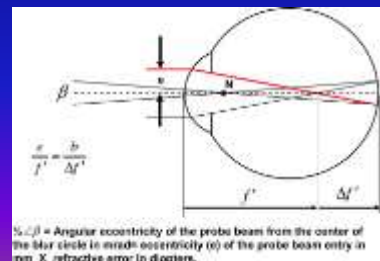
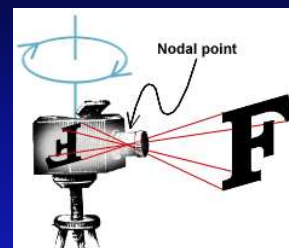
Edge-effect in high myopia?

Location and Nodal Point?

Location, Location,
Location...

May cause bad memories
from college physics
class

The closer to center of
lens, the better the
quality vision



Magnification and Technology

Magnification effects

10D ICL = 30% magnification



Collagen polymer

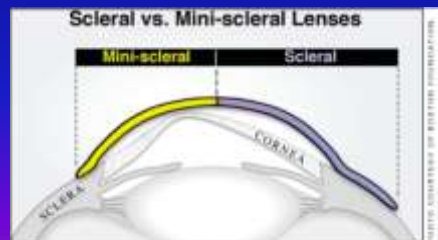


Initial ICL Use Only in Pathology

Extreme myopia



Irregular cornea or atypical topography



Evolution of Who Gets the ICL

I was acting like the judge



**Deciding who would get
ICL vs. LVC**

**Based in some cases only
on corneal thickness...**



What Are We Doing Now...and Why?

**Presenting more of a choice
at -6D and above**



**Who would not want a
Corvette (LASIK)?**

But what about a Ferrari (ICL)?

**Give patients a choice and let
them decide after details**



Patients' Opinion of the ICL

Better Va than glasses – 99%

Better Va than contacts – 75%

Would do it again – 99%

Would recommend ICL to a friend – 99%



Better Va than contacts after LASIK -- only 30%

June 2007 to Today

Now over 3000 ICLs

No physical restrictions or limitations except for pilots

Patients' words... *"It is like HD versus Regular TV"*

LVC is still popular but the ICL is becoming a Premium Choice



***Quality Vision Beyond 20/20:
Can we make Refractive Surgery even better?***

**FS/Wavefront Guided LASIK gives best results and
minimizes complications of LVC
(final evaluation of SMILE pending)**

**EVO/ICL addresses most concerns with phakic IOL
(cataract potential and LPI issues)**

**If highest quality of vision is the goal...it appears the
ICL is the best procedure**

