U.S. Trends in Refractive Surgery: 2010 ISRS Survey
- Partner of AAO -

Richard J. Duffey, MD
David Leaming, MD

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The authors have no financial interests in this survey study.
2010 Survey

- Second year of ONLINE*** survey opened by 561 ISRS members of the 1165 total emailed
- 112 responses analyzed by October 1, 2010 for 20% of the U.S. ISRS membership who opened the survey.
- Fourteenth year of refractive data collection.
- Alphabet soup of refractive surgery including corneal and lens-based surgeries.
> 75 Cases / Month

* Peaked in 2001

DUFFEY 2010
Preferred Surgery For 30 yo -10.00 Diopter Myope

<table>
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<tr>
<th>Year</th>
<th>Never</th>
<th>Surface Ablation</th>
<th>LASIK</th>
<th>RLE</th>
<th>P-IOL</th>
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* 48% LVC

DUFFEY 2010
Preferred Surgery For 45 yo +3.00 D Hyperope

DUFFEY 2010
Preferred Surgery For 45 yo +5.00 D Hyperope
Surgery Done Bilateral At Same O.R. Visit

DUFFEY 2010
Had Refractive Surgery Performed on Yourself

**39%

DUFFEY 2010
Family LVC Index: (LASIK or PRK Performed on Our Own Family Member)

DUFFEY 2010
Excimer Laser Most Commonly Used

![Graph showing the use of different excimer lasers from 1997 to 2010]

- VisX
- Alcon
- Nidek
- Wavelight
- B and L
- Others

DUFFEY 2010
“Microkeratome” Most Commonly Used

DUFFEY 2010
Topography Unit Most Commonly Used

Zeiss-Hum
Orbscan
EyeSys
Tomey
Nidek
Pentacam
Others

DUFFEY 2010
Preferred Surgery for “Pre-Cataract” Presbyopia

DUFFEY 2010
Comanagement

DUFFEY 2010

Yes: 52
No: 48
>50%: 8
When Comanaged, Who Does Day 1 Postop Exam?

- Surgeon Comanagement:
  - '08: 85
  - '09: 70
  - '10: 30

- Comanager Comanagement:
  - '08: 60
  - '09: 40
  - '10: 20

DUFFEY 2010
Do You Routinely Measure Flap Thickness *Intra-operatively*?

DUFFEY 2010
Preferred Flap Thickness (when no other constraints)

DUFFEY 2010
Minimum Residual Stromal Bed Thickness Requirement for LASIK

* 54% at 275 microns or greater
Minimum Cent. Corneal Pachymetry for LASIK (all other parameters normal)

* 59% OK with 480 or less
Will You Perform Refractive Surgery on One-Eyed Patients

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DUFFEY 2010
Post-Op Antibiotic

DUFFEY 2010
Post-Op Steroid

DUFFEY 2010
Total LVC Volume within ISRS

* 9% increase in Total LVC from 2009.
Ratio of PRK / Total LVC increased from 15% to 24% over past year.
Second ONLINE ISRS Survey was a success with 20% response rate.

LVC Volume up 9% within ISRS membership in 2010 relative to 2009.

Ratio of Surface Ablation / Total LVC increased from 15% to 24% over past year.
VisX 2:1 (60%) over Wavelight (34%) which is on the rise

About 39% penetration of modern refractive surgery amongst refractive surgeons; 4-5 times the general population. Family Index rates also continue to be high despite mixed bad press in the general public media.
18% of respondents are OK with bilateral P-IOL and 8% with bilateral RLE at the same surgical setting (unchanged).

Multifocal IOL 13% over accommodative IOL 9% as a preferred lens-based presbyopia option when used for RLE.

Femtosecond laser use on the rise (55%).
Thinner flaps on the rise; 100 micron or less flaps are favored by 48% of surgeons (up from 12% in ‘04).

RSB Thickness on the rise; 45% still think 250 microns is adequate, but 54% recommend 275 microns or more.

New post-LASIK ectasia continue on the decline.
Types and volumes of refractive surgeries currently being performed
Preferred Epikeratomes
Mitomycin-C use
Post-operative use of antibiotics, steroids and nonsteroidals
Surgical venues for various procedures
Thanks to the ISRS leadership for their support and for your participation in the 2010 Survey.

We look forward to your response to our third ONLINE survey next fall.

***Complete 14 years of survey results found at www.duffeylaser.com***