

Contents

1. Basic Instruments in Ophthalmic Surgery 1

Sandeep Gupta, Vijay K Sharma

- Lid Speculums 1
- Forceps 2
- Eye Scissors 5
- Needle Holder 7
- Callipers 8
- Instrument Box 9

2. Instruments for Cataract Surgery 10

Manpreet Kaur, Roshan T, Jeewan S Titiyal

- Thermal Ball Point Cautery 10
- Electrocautery 10
- Bard Parker Knife Handle with Blade 11
- Microvitreoretinal Blade 12
- Side Port/Stab Knives 13
- Crescent Knife 13
- Keratome 14
- Cystotome 14
- Microcapsulorhexis Forceps 15
- Smith Lens Expressor (Lens Hook) 15
- Wire Vectis 16
- McIntyre Irrigating Wire Vectis 16
- Simcoe Irrigation–Aspiration Cannula 17
- J-shaped Double Irrigation–Aspiration Cannula 18
- Sinsky Hook 18
- Chopper 19
- Phacoemulsification Probe and Tips 20
- Infusion Sleeves 21
- Iris Repositor 22
- Coaxial Irrigation–Aspiration Handpiece 22
- Bimanual Irrigation–Aspiration Handpiece 23
- Cannula 23
- Anterior Chamber Maintainer 24
- Von Graefe Knife 24
- Arruga Capsule Forceps 25
- Kirby Lens Expressor and Repository 25
- Kirby Lens Expressor and Vectis 26

- Lens Holding Forceps 26
- Lens Folding Forceps 26
- IOL Injector 26
- Autosert 27
- Stevens Femtosecond Flap Lifter 28
- Krokchings Femto Incision Opening Spatula 28
- Cionni Femto Spatula and Nucleus Divider 28
- Dr Rana's Double Tooth Phaco Chopper 29

3. Instruments Used in Refractive Surgery 31

Tarun Arora, Rajesh Sinha, Jeewan S Titiyal

- Various Instruments Used in Cornea-based Refractive Surgery 31
- Instruments Used for Implantable Collamer Lens Based Surgery 35
- Instruments for Femtosecond Assisted Intacs 36

4. Instruments for Corneal Surgeries and Eye Banking 38

Reena K Singh, Rajesh Sinha, Jeewan S Titiyal

- Instruments Used for Eye/Corneoscleral Button Retrieval 39
- Specular Microscopy in Eye Bank 43

Corneal Surgery Instruments 44

- Different Types of Speculum 44
- Superior Rectus Fixation Forceps 45
- Flieringa Scleral Fixation Rings 45
- Scale 46
- Castroviejo Calliper 46
- Radial Keratotomy Marker 47
- Teflon Corneal Blocks 47
- King's Clamp 48
- Razor Blade Breaker and Holder 48
- Diamond Knife 49
- Hand-held Corneal Trephines 49

Microlamellar Dissectors 50

- Devers-Terry Straight and Curved Lamellar Dissectors 50
- Gill's Lamellar Dissector 50
- Tooke's Knife 51
- Cyclodialysis Spatula 51
- Flap Lifter double-ended 51
- DSAEK Spatula 52
- Reverse Sinskey Hook 52
- Miniperforated Spoon/Graft Shifter 52
- Ogawa DSAEK Graft Holding Forceps 53
- Busin Glide 53

- DSAEK Busin Forceps 54
- Small Incision Manipulating Forceps 54
- Moria Lamellar System for Keratoplasty 54

5. Instruments for Strabismus Surgery

57*Rohit Saxena, Digvijay Singh*

- Speculum 57
- Scissors 59
- Needle Holder 61
- Caliper 62
- Blade Holders 63
- Forceps 63
- Muscle Hooks 65
- Muscle Clamps 69
- Retractors 70
- Miscellaneous Instruments 71

6. Instruments Used in Oculoplasty Surgeries

73*Nitin Vichare*

- Forceps 73
- Scissors 75
- Retractors 77
- Needle Holders 80
- Lid Spatula (Eye Guard) 81
- Nettle's Punctal Dilator 82
- Bowman Probes 82
- Caliper 83
- Kerrison Rongeurs (Bone Punch) 84
- Lacrimal Sac Dissector and Curette 85
- Freer Periosteal Elevator 85
- Chisel and Hammer 86
- Ptosis Muscle Clamp 86
- Entropion Clamp 87
- Wright Facia Needle 87
- Enucleation Spoon 88
- Evisceration Scoop 88

7. Instruments for Glaucoma Surgeries

89*Dewang Angmo, Neha Kamble*

- Crescent Blade (Sclerocorneal Splitter) 89
- Razor Blade Fragment with Blade Holder 89
- Westcott's Spring Scissors 90
- Vannas Scissors 91
- DeWecker Iris Scissors 91
- Kelly Descemet's Membrane Punch 92

- Harms Trabeculotomy Probe 93
- Glaucolight-illuminated Fiberoptic Microcatheter 93
- Cyclodialysis Spatula 94
- Surgical Super Absorbent Spears/Sponges 95
- Biodegradable Collagen Matrix 95
- Ahmed Glaucoma Valve Tube Insertion Forceps 97
- Surgical Goniolenses 97
- Glaucoma Drainage Devices 99

8. Instruments Used in Vitreoretinal Surgeries 101

Ravi Bypareddy, Chintan J Dedhia, Rohan Chawla

- Instruments Used in Scleral Buckling Surgery 101
- Instruments Used in Vitreoretinal Surgery 104

9. Needles and Sutures in Ophthalmology 121

Tarun Arora, Supriya Arora, Rajesh Sinha, Jeewan S Titiyal

- Needles 121
- Sutures 125

10. Sterilization of Surgical Instruments 132

Manpreet Kaur, Roshan T, Rajesh Sinha, Jeewan S Titiyal

- Cleaning of Instruments and Equipment 133
- Inspection 135
- Packaging 135
- Sterilization 136
- Sterile Storage 143
- Quality Assurance 143