

1. Record Nr.	UNINA9910300315003321
Titolo	The History of Technologic Advancements in Urology // edited by Sutchin R. Patel, Michael E. Moran, Stephen Y. Nakada
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-61691-9
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (VIII, 341 p. 127 illus., 95 illus. in color.)
Disciplina	616.6
Soggetti	Urology Minimally invasive surgery Interventional radiology Minimally Invasive Surgery Interventional Radiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction -- 2. Development of the Cystoscope -- 3. History of Optics -- 4. Development of the Ureteroscope -- 5. History of Transurethral Resection of the Prostate -- 6. History of Transurethral Resection and Fulgiration of Bladder Tumors -- 7. Development of Endourology -- 8. Development of Adjunctive Equipment in the Treatment of Urolithiasis -- 9. LASers in the Treatment of Urolithiasis -- 10. Lasers in the Treatment of BPH. 11. History of Shockwave Lithotripsy -- 12. Development of PCNL -- 13. A Brief History of Radiological Imaging and its Application in Urology -- 14. History and Development of Radiation as a Treatment Modality for Prostate Cancer -- 15. Cryoablation in the Treatment of Renal Tumors -- 16. Radiofrequency Ablation in the Treatment of Renal Tumors -- 17. Cryoablation for Prostate Cancer -- 18. The History of Laparoscopy and the story of the first Laparoscopic Nephrectomy -- 19. The Development of Hand-Assisted Laparoscopy -- 20. The Development of Robotics -- 21. LESS and NOTES -- 22. HIFU -- 23. Histotripsy -- 24. Nanotechnology in Urology -- 25. Regenerative Medicine. 26. From Idea to Invention: Navigating the Patent Process -- 27. Future Directions.

Sommario/riassunto

This text explores the history and development of the many technologies that have led to how we treat contemporary urologic problems. From the development of the cystoscope, the advances in laparoscopy, the birth of the field of endourology, to the era of robotics today, urologists have pushed the envelope in technologic innovation. The editors highlight the development of the cystoscope and the early tools used to treat ureteral stones, the development of ureteroscopy, and the applications of lasers and shock wave lithotripsy in the treatment of urolithiasis. Furthermore, they explore the history of minimally invasive treatments in urologic oncology from the story behind the first laparoscopic nephrectomy, the application of hand-assisted technology to the development of robotics and percutaneous treatment approaches (radiofrequency ablation and cryoablation). As the field of urology continues to evolve, urologists will continue to look to the future with the recent applications of histotripsy and regenerative medicine. This text chronicles the creativity, innovation and discovery of the developments of the instruments that allow to practice urology today, as well as glimpse what the future of urology holds.
