Perhaps one of the simplest steps in the phacoemulsification procedure is the insertion of the intraocular lens (IOL). The transition from single-piece all polymethylmethacrylate (PMMA) IOLs to foldable acrylic and silicone IOLs has allowed for lens insertion through smaller incisions with less surgically induced astigmatism and faster visual recovery. At the time of introduction of foldable IOLs, insertion was accomplished with folding forceps and inserters and these eventually were replaced with cartridge injectors that further simplified the IOL insertion technique. Adjunctive capsular bag prostheses, such as the capsular tension ring (CTR), added an additional tool for facilitating phacoemulsification in difficult and challenging cases and ensuring adequate IOL centration following these procedures. Even with the best techniques, complications may develop requiring alternatives for traditional capsular bag implantation of IOLs. In this chapter, we will review the techniques for loading and implanting foldable IOLs utilizing folding forceps and cartridge injectors. In addition, a review of the utility of CTRs and techniques for in-the-bag and sulcus implantation of foldable IOLs will guarantee that the ideal postoperative result will be achieved in both routine and complicated cases.

**FOLDING AND INSERTION FORCEPS FOR THREE-PIECE FOLDABLE INTRAOCULAR LENSES**

Although for the most part folding forceps have been supplanted by cartridge injector systems, knowledge of their utilization is important. On occasion, folding forceps are utilized for implantation and positioning of foldable IOLs for iris fixation or when cartridge injector systems fail or are not available.

A greater amount of energy is required to fold an IOL than to hold it in its folded configuration. By creating two separate instruments to fold and insert IOLs, folders could be made with special features that allowed for more precise and consistent folding, and the insertion forceps could be designed more finely for insertion through smaller incisions. A host of folding forceps and inserters have been created including the Nichamin III Loader and Nichamin II Inserter (Rhein Medical, Tampa, FL) (Figure 10-1), Nordan Unifold folding forceps (ASICO, Westmont, IL), and the Buratto Silicone and Acrylic IOL Implantation Forceps (ASICO), just to name a few. Most three-piece foldable lenses are being manufactured with PMMA haptics to increase haptic stability and decrease the rate of lens decentration. Older lens insertion techniques for use with