

LEO MAGUIRE: Hello. I'm Leo Maguire, one of the corneal specialists here at Mayo Clinic. In this part four video, we're going to teach you how to bring the needle to the host surface in a controlled and reproducible fashion.

Welcome to part four of our series of short videos that discuss a curriculum for corneal suturing that we've used to train our residents at Mayo over the past 15 years. In earlier videos, we learned how to drive the needle through the graft and how to drive the needle through the host so that it was deep, radial, and parallel to the posterior host surface. Now we want to learn how to drive the needle up to the surface, at as close to a right angle as possible, and in such a fashion that it exits the surface 0.8 to 1.0 millimeters from the edge of the host wound.

How do we accomplish this goal? First, we use the needle holder to rotate the tip of the needle 90 degrees on its axis from its initial position parallel to the host posterior surface. Once that rotation occurs, we don't drive the needle to the surface with the needle holder. Rather, we drive the cornea into the needle with the Colibri.

The Colibri is positioned on the host surface in a T position, where the Colibri is perpendicular to the axis of the needle, and the needle tip is halfway between the two edges of the end of the Colibri. Note that the Colibri is also positioned about a millimeter from the host edge. Press down and actually cornea the needle instead of needling the cornea. If you have all your positions correct, it can only exit exactly where you plan to exit and should have the correct depth, length, and radially.

So to review in text.

[MUSIC PLAYING]

And animation.

I hope you found this video helpful. Stay tuned for part five, where we learn how to tie a corneal suture. I'm Leo Maguire. Thanks for watching.