have to deal with a hard cataract. You deal with a very soft lens, which can essentially usually just be aspirated without having to break it up by ultrasound, and I've done a great many cataracts over the years. I guess maybe 30,000 or so, probably more than anybody else in the Delaware Valley. I've lectured on cataract. I've devised instrumentation for lens surgery, cataract surgery -- they're the same thing -- and I have been very active in it. That's what most of my work has been over the years.

BY MR. KAFRISSEN:

Q. Okay. Can you describe for me your training in performing the Lasik procedure.

A. The training for the Lasik procedure, I guess, would have to start with training in automated lamellar keratoplasty, or ALK. Since that operation which we began doing -- I'm not sure of the date, I think in the early '90s, '91 or so or '92, perhaps, is the same as Lasik except that a mechanical device is used for removing the portion of the cornea that gives the power change in the cornea rather than a laser, and I took a mini fellowship with Doctor Steven Slade, S-L-A-D-E. I

attended lectures by Doctor Louis Ruiz, R-U-I-Z, and he is essentially the inventor of the procedure, and I attended many medical meetings involving ALK. I trained in Lasik by attending many fellowships with several different doctors. I spent time with Doctor Delaney in Phoenix and with Doctor Hollace in Columbia – Columbus, Georgia, Columbus, Georgia. And I've attended many meetings and worked with my colleagues on it, and I've done a lot of reading and work in the field.

The Lasik procedure and the ALK procedure are the same except for the use of the laser to remove the tissue that makes the power difference. Actually, Lasik is a much easier operation than ALK.

Q. When did you begin doing ALK on your own?

A. I would guess around '91 or '92, but I'm not sure.

Q. Do you have any subspecialty within opthalmology?

A. I would consider my subspecialty cataract and refractive.

Q. Okay. So from the early '90s through -- was there -- when did you start to perform Lasik?

MS. POST: When did he start the training or when did he start to do it on his

own?

MR. KAFRISSEN: No. When did he start to perform it himself?

THE WITNESS: I believe it was in 1996, but I may have that note in my bag, if you want me to review it. I wrote down a few dates to remind myself of dates. If you want, I'll check it.

MR. KAFRISSEN: Okay.

MS. POST: Why don't you do that.

THE WITNESS: December of '95 I started using the laser.

BY MR. KAFRISSEN:

Q. Now, of the Lasik procedures, from my review of the records, it looked like you had assisted in some of the Lasik procedures and the enhancement procedures that were done on Cheryl Fiorelli but had not been the primary surgeon; is that right?

A. Yes.

Q. And is that correct for all -- were there any Lasik procedures where you were the primary surgeon with regard to Cheryl Fiorelli?

A. No.

Q. Okay. With regard to the ALK procedure that

you describe, which is kind of a precursor, it sounded like, to Lasik, was corneal thickness ever a concern in performing an ALK procedure?

A. Sure. Concern, yes.

Q. Can you describe for me what significance, if any, corneal thickness had to the ALK procedure.

A. If the cornea were extremely thin, one might get progressive change and progressive hyperopia after surgery. There were two ALK procedures: one for myopia, which is the same as Lasik, essentially, except that the second cut is made with the microkeratome to remove tissue; and the other procedure was a microkeratome procedure for hyperopia where you make a very deep cut; and the thickness of the cornea is important there because you can only take a certain percentage of the cornea for the deep cut without getting progressive hyperopia. This really doesn't apply to the Lasik procedure, but we have to be careful of that because the principle of the hyperoptic ALK procedure is that of a controlled ectasia of the cornea, and to control it you have to have the right depth.

Q. Now, did ALK continue in use after Lasik came to be?

A. By some people, until they got lasers. I don't

know of anyone who would have continued using ALK if he had the ability to use the laser. It's more accurate.

Q. Now, during the Lasik training, can you tell me what, if anything, you learned about the importance of corneal thickness in the Lasik procedure.

A. Nothing different from ALK. The corneal thickness, again, is measured so that one doesn't remove so much cornea that one could get progressive hyperopia or ectasia.

Q. Okay. When you perform ALK, would you measure corneal thickness prior to performing the procedure?

A. I believe so. I don't remember exactly whether we were measuring it -- or how we were measuring it. We were estimating it, certainly, at the slitlamp. I do not remember when we started using ultrasonic measurements of corneal thickness. We've always had optical measurements of corneal thickness.

Q. When you began performing the Lasik procedure in December of 1995, were you making either ultrasonic or optical measurements of corneal thickness prior to performing a Lasik procedure?

A. I do not recall whether that was being done or whether it was being estimated on a slitlamp examination. I'm not sure. I'd have to check the records. I don't

know.

Q. Okay. The considerations regarding corneal thickness with ALK, would those have been considerations that you were aware of between, say, '92 and '95?

A. I'm sorry. What was that question?

Q. You had mentioned that corneal thickness would be a consideration in performing ALK; correct?

A. Yes.

Q. And what I'm asking you is was the consideration of corneal thickness something that you were aware of between 1992 and 1995 when you were performing those ALK procedures?

A. It's something we became aware of when we learned that corneal thickness was important. When we started doing the procedure, I don't think we were as aware of it, but as cases were reported in some patients who had very thin corneas developing ectasia, we became more aware of it. I really don't remember when ultrasonic pictometry became available, and as soon as it did, we got the instrument and started using it.

Q. Do you know if that was available prior to March of 1997?

MS. NEWMAN: In his office or anyplace?

MR. KAFRISSEN: At all.