



*Clockwise from top: Designs for Vision's Micro4.5EF, Micro3.5EF and Micro2.5x Standard Field scopes.*

# Envisioning a Brighter Future

Designs for Vision continues to reap the rewards of its optical research, ensuring that clinicians truly “see the light”

As it enters its seventh decade of business, Designs for Vision, through research and development, continues to embrace its original mission statement: to help people from all walks of life better realize their full potential through better vision. Today, more than 200,000 of the company's optical products are used daily by dentists and surgeons in their efforts to improve their patients' quality of life.

Richard Feinbloom, Designs for Vision's president, acknowledges that most dentists today probably own a pair

of loupes, but as the nature of dental procedures evolves, he advocates matching magnifications with specific procedures. For instance, a cosmetic dentist might use 2.5x magnification loupes for general work on veneers, but may want to switch to 4.5x for final positioning for the best viewing of margins.

“I would think by now every general dentist has a pair of 2.5s,” Feinbloom said. “That's the entry point for starting to use loupes. However, I think most general dentists—if they want to start doing endo—have got to at least move up to 3.5x magnification, or preferably 4.5x.”

## Observations from the field

Dr. Michael Barr, a Townie who operates a private practice in Boynton Beach, Florida, refers to his Designs for Vision LED DayLite and 3.5x loupes as his “normal vision now,” and says he utilizes them for all procedures.

“I do my exams magnified and illuminated, even exams in my hygiene room,” Barr said. “Certainly, there are certain situations where you really do need magnification. The first one is obvious—root canals.”

Commenting on dentists who firmly maintain that their naked eyesight alone is sufficient to practice dentistry, Barr said: “Throughout my career, I’ve had a number of dentists tell me that their eyes are fine. So are mine! Although now that I’m 54, not so much, but I got my loupes when I was in my late 20s, and my eyes were perfectly good.

“Now, I’m sure there are a lot of astronomers who have good eyes, but they need a telescope to see the moons of Jupiter. The fact that your eyes are ‘good’ is irrelevant. Magnification is not corrective; it’s an enhancement. I think a lot of dentists resist spending a few grand because their eyes are fine. That’s not the point. I *want* to see the moons of Jupiter when I’m doing a root canal.”

And in an interesting observation on doctor–patient relations, Barr notes the philosophical value of loupes.

“I think they show that you care about what you do. I actually even bring it up with some of my patients: I’ll be doing some procedure, and I’ll casually say, ‘Boy, I sure am glad I’ve got these funny-looking glasses on my head.’ It’s just a subtle way of letting the patient know that you care about what you do and that you’re willing to make an investment in loupes.”

Dr. Jason Single, a Townie with a private practice in Lexington, Kentucky, echoes Barr’s sentiments regarding the use of loupes.

“I wear them for everything—exams, endo, operatives, surgery,” Single said. “I have basically three pairs of loupes and four backups, as far as lights go. I’m not going to work without them. I just don’t feel like I can provide quality care. I wouldn’t be comfortable working without them. For example, my mounted light saved me the other day when I had to fish out a root tip on a No. 16 wisdom tooth that I took out. There’s no way an overhead light would have been able to shine back there enough for me to see it.

“I started off with 3.5s from Designs for Vision, got used to the magnification, and basically got to the point where I couldn’t work without using magnification. Now, I use the 4.5x expanded field loupes on traditional Buddy Holly frames. When I bought these, I did go back and forth a bit with Designs for Vision to get the right distance set

on them, but this was really not a problem—I could send them back as many times as necessary until I was happy with how they fit and how they functioned. The company really stands behind its products.”

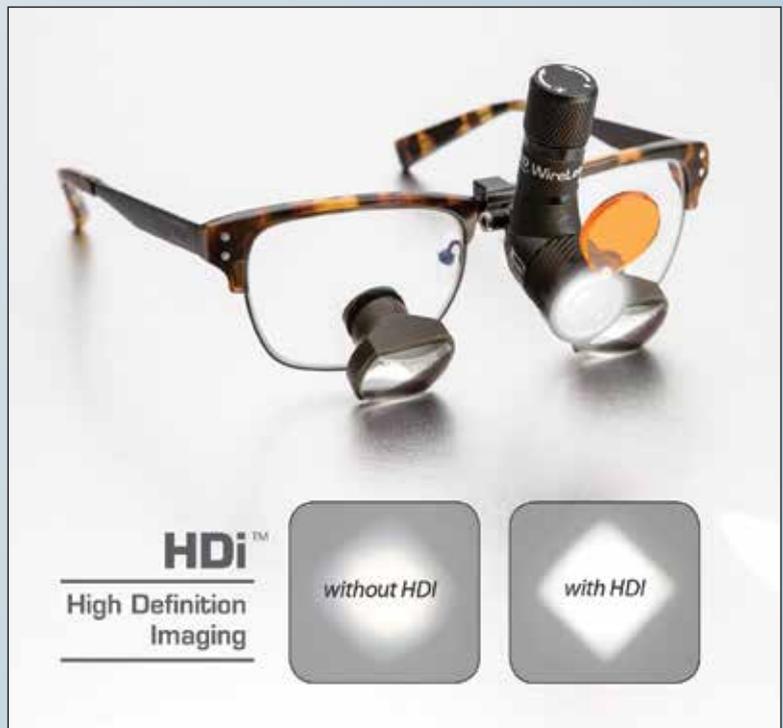
## LED technology enters the loupes marketplace

When LED technology entered the loupes domain in 2006, Designs for Vision was quick to respond, examining the technology and addressing its shortcomings.

“A traditional LED headlight has a hotspot, and it diffuses from that center over the rest of the area, so it’s not an even illumination,” said Feinbloom. “We heard customers complaining that they were constantly fighting to find that bright spot to work out of. We have a patent pending on what we call HDi, which is high-definition imaging. It’s a revolutionary way of focusing light from an LED that provides an even, high-intensity field of view. Our lights measure about 50 percent brighter than competitors, and they are also more focused than other lights.”

“When you’re using magnification—especially higher magnification—the value of a headlight becomes even more apparent because the higher the magnification, the less light comes through,” Barr said. “So you really need stronger light than what your typical dental overhead light provides.

“The other big advantage of a headlight is that wherever you look, there is light. You don’t have to adjust the light direction at all; wherever you’re looking, whether it’s a mirror or direct vision, you have great illumination.”





The view through a standard-field set of 2.5x loupes ...



through a standard-field set of 3.5x loupes ...

## Expansion, automation, implementation

In its ongoing effort to be in the vanguard of optical research, Designs for Vision recently expanded, relocating into a 67,000-square-foot building on Long Island, New York, that the company completely renovated, redoing, according to Feinbloom, “eventually everything down to the studs.” And with this expansion came the implementation of new manufacturing technology.

“It’s all about automation—for example, CNC lathes and CNC turning centers,” Feinbloom said. [*Editor’s note: CNC stands for computer numerical control, in which machine tools are directed by computers that precisely dictate and control exact positioning and velocity.*] “Among our engineering, production and machine shop operations, we’ve got 16 of these that allow us to build our own subassemblies down to 0.0005 inch as far as tolerance. This has allowed us to create HDi technology because we’re able to control the tolerances that allow us to perfectly image the LED.

“We’re utilizing a high-index glass dome that captures the light. An LED emits light in basically 125 degrees—it’s not quite 180 degrees, completely flat on the horizon, but it’s a very wide spot. That’s the problem with utilizing LEDs in headlights. Our technology and our ability capability allow us to create a lens system that gathers that light emitted at 125 degrees and point it forward in a beam that’s only 30 degrees wide.”

And this attention to optical quality, particularly the quality of glass utilized in loupes, is not something that’s lost on Barr.



Designs for Vision expanded into, and completely renovated, a 67,000-square-foot building on Long Island, New York.



through Designs for Vision's Micro3.5EF loupes ...



and through Designs for Vision's Micro4.5EF loupes.

"I strongly advocate for products that significantly improve our work comfort and result in a price that doesn't require a loan or a consultation with your spouse. Designs for Vision is not the cheapest loupes manufacturer on the market, but consider this: I was a fairly serious amateur photographer years ago, and a good photographer knows that you spend your money on the glass—it's all about the glass, and cheap glass is not the same as expensive glass. When it comes to the optics, if you 'cheap out,' there's a price to be paid in the quality of the image—the light-gathering ability, the sharpness and the edge-to-edge of the view. Cheaper glass usually starts to blur out toward the edges of the field of view. And optics in dentistry is no different. It's the same exact thing."

Barr said that loupes are "a relatively small investment in the spectrum of dental equipment investments. But the payoff is just huge when you consider the improvement in the quality and efficiency of the work that you do. If you can see better, you work better and faster, and better and faster is a good thing and rarely combined."

"For a few thousand dollars, I've had my loupes for maybe 15 years, so they've lasted, and held up very well. I've had to send them to Designs for Vision a few times for some service, and the company is very good about its service and turnaround time. It stands behind its products, and I think that's what you get when you maybe pay a little bit more in the beginning."

## Final words

Feinbloom attributed Designs for Vision's longevity and success to the fact that the company's loupes "are completely custom-built for each individual. It's the way we've always built them. Everything from the dentists' eyeglass prescription, working distance, interpupillary distance, is custom-crafted to them, here in the United States."

Single, in choosing Designs for Vision loupes, cited a desire for comfort and durability, combined with a well-respected company, as his determining factor when purchasing loupes. "I started with Designs for Vision back in 1997 when I was in dental school, and I still have those loupes as my backups today," he said. "Repaired them with no problems. The company is very good at standing behind its products."

"Nowadays, there are a number of players in the market for magnification in dentistry," Barr said. "Back when I was initially looking, I looked at two different companies and I actually have loupes from both of them. My first set was not from Designs for Vision, but then after that, I went with DFV mainly because of its reputation for quality. It's also involved in the medical side of things, so it has been in this field for a long time. It has the reputation, and it lives up to it."

"And in terms of the actual glasses that the company mounts its optics on, they're very robust—they'll hold up to daily use for years and years. Some of the other companies out there, the frames of the glasses and the glasses themselves aren't nearly as robust. But Designs for Vision glasses? They're basically built like a tank." ■