Capturing THE ASTIGMATIC Patient Opportunity **Applying Principles** of Innovation for **Practice Success** clear vision all-day comfort stability **FEATURING** Mark Wright, OD, FCOVD Professional Editor, Review of Optometric Business Gina Wesley, OD, FAAO Jim Hoffman, OD, FAAO Monica Johnsonbaugh, OD Scott Schachter, OD

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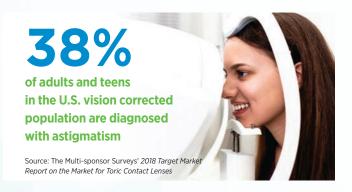


Innovation Is Just a First Step

n our continuing reports on the value of innovation in eye care, we've learned how it can help us give patients measurable successes in vision and comfort.

Innovations in treating astigmatism have opened another opportunity. According to the Multi-sponsor Surveys' 2018 Target Report on the Market for Toric Contact Lenses, in the U.S. there are 66.3 million people ages 13 and older with astigmatism. Yet barely a third, 22.5 million, are in contact lenses, and of those only 8.6 million are wearing toric lenses. The remaining 13.9 million are in non-toric lenses and could be candidates for an upgrade to toric.

For eye care practitioners (ECPs), these numbers are great news, because they show the opportunity ECPs have to offer eye care based on product innovations. That's what an effective



provider should do. Accomplishing that outcome requires both a culture of innovation and a change in behaviors that may be holding the practice back.

In this report, four ECPs will describe their experiences in presenting innovative contact lens options and how they educate patients, framed with new data that illuminates the perspective of consumers.

We also have interviews with three authors of recent books on business management. Nicholas Webb, author of *What Customers Crave* and a futurist, technology CEO and inventor, discusses what he calls "the experience economy" to explain what will keep customers coming back. Glenn Llopis, an entrepreneur, speaker, adviser to Fortune 500 firms and author of The *Innovation Mentality: Six Strategies to Disrupt the Status Quo* and *Reinvent the Way We Work*, describes strategies for creating an innovative culture in a business. Don Peppers, a management consultant on customer focused business strategies and author of *Customer Experience: What, How and Why Now,* talks about the importance of "the human touch" in building a bond between a business and its customers.

Mark Wright, OD, FCOVD Professional Editor, Review of Optometric Business



In support of this report, we have a web-based resource, Innovation in Practice (bl.reviewob.com), which has links to video commentary and articles by ECPs about putting innovation into practice by creating and sustaining a culture of innovation. There are also workbook modules for ECPs and office staff.

That website also has links to our two previous reports: Capturing the Presbyopic Opportunity and Leading with Innovation: Setting Up Presbyopes for Multifocal Success.

Recent advances in toric lenses are creating opportunities to provide patients with outstanding care and to build strong practices. Integrating these advances into our routine is a key step. For innovation in eye care to reach its full potential, integrating innovations into practice should be an integral part of our mission to provide the highest standard of care. And our entire practice team must understand how innovative solutions help to fulfill that mission. As practice leaders, it is up to us to make these changes happen.

The potential market for toric contact lenses is underserved



Projections based on a total U.S. 13+ population of 276.2 million in 2018 SOURCE: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses

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WHY INNOVATION?
Getting Started in Creating
a Culture of Innovation

Closing the Knowledge Gap

hen it comes to helping patients figure out their eye care options, says Gina Wesley, OD, FAAO, "sometimes we need to plant the seed."

Advances in eye care technology mean patients often come to their eye care practitioner (ECP) with a knowledge gap, she says. "Our patients might not know about the choices they have unless they hear it from us. Often they haven't even thought about it."

According to the Multi-sponsor Surveys' 2018 Target Report on the Market for Toric Contact Lenses, 46 percent of eyeglass-only wearers with astigmatism perceive potential problems with wearing contact lenses. Astigmats are twice as likely as those without astigmatism to perceive possible problems. And among astigmats who cite vision problems, 69 percent specifically name their astigmatism as a possible obstacle.

Consumers believe astigmatism is a barrier to contact lens wear

69%

of eyeglass-only wearers with astigmatism who perceive potential problems with wearing contact lenses refer specifically to astigmatism as the reason

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses

The report notes that just 13 percent of contact lens wearers are wearing toric lenses. So there are many patients who might choose toric lenses if ECPs and office staff educate them of the opportunity, Dr. Wesley says.

"Those conversations are a chance to explain the options, and, in doing so, to prove your value to your patients," she says. "My astigmats hear from me that, yes, their prescription might be a little different. And I tell them, 'We can correct the astigmatism with today's advanced contact lenses, called toric lenses.""

Factors that patients believe may prevent contact lens wear

(Among all perceiving vision problems)

HAVE ASTIGMATISM (n=228) NO ASTIGMATISM (n=165)

Astigmatism (69%) Dryness/dry eyes (34%)

Astigmatism (69%)

Need for close-up & Need for close-up & distance correction (33%)

Dryness/dry eyes (34%)

Need for close-up & distance correction (21%)

Dryness/dry eyes (25%)

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses





Opportunities to promote toric contact lenses to patients are underutilized

Steps doctors have taken to promote toric lenses

Displayed specific signage about toric contact lenses Yes

Yes 25% No 75% Added specific information about toric contact lenses on website

Yes No 35% 50% No website 15% Held promotional event about toric contact lenses in past 6 months

Yes 5% No 95%

Source: The Toric Contact Lens Attitude and Usage Survey, 2017

This proactive approach is proving effective. Over the past two years, Dr. Wesley has expanded the benefits of contact lenses to half of her patients, and 85 percent of them are in daily disposable lenses. Growth is especially high in multifocal and toric contact lenses, also in daily disposable formats.

Her confidence in toric lenses has grown in recent years with innovations in the design and materials. "Ten years ago I might have suggested toric lenses and then hoped for the best," she says. "We often had to make adjustments or do several fittings, but nowadays that rarely happens in my practice. My first-time fitting success rate is similar to fitting spherical contact lenses."

With toric lenses, Dr. Wesley sees an opportunity to provide enhanced vision and in the process build value with patients. The recent survey data suggests toric lens wearers see the value, too. According to the 2018 report, among astigmatic contact lens wearers who say they're likely to stop wearing contact lenses, those wearing single-vision spherical lenses are more likely to stop than those in toric lenses, 26 percent to 19 percent, respectively.

"I am proactive in suggesting toric contact lenses because I believe we can depend on the technology," Dr. Wesley says. "Astigmatism simply is not a barrier to contact lens wear today."



LEARN MORE

Go to Innovation in Practice at http://blguide.reviewob.com and read:

PRODUCTS AND SERVICES MANAGEMENT

What Do Customers Love and What Do They Hate

How are today's patients different and how should eye care practitioners respond?

Eye care practitioners (ECPs) have to accept that, in a time of hyperconsumerization, the nature of the way they deliver experiences to their patients has to change. Patients have been consumerized by Amazon and Google and Apple and Trader Joe's and everything else. They expect an experience that respects their time.

And the old-fashioned approach makes people wait, and waiting is a friction point ECPs have to eliminate. Create more walk-in options, more effective exam processes. Find out what they love and what they hate and implement processes to include more of what they love and less of what they hate.

You write about the five touch points. What are they?

They are pre-touch, first touch, core touch, last touch and in touch. Invent exceptional human experiences across all five touch points. Patients are going to Google you. That's your pre-touch point. Are you there, are you relevant, are you valuable? Your web site is your value dispenser. Offer content such as "Ten things everybody needs to know about protecting your eyes" or "supplements for dry eye." These are informational products that are free and are valuable.

And the first touch point is a phone call or when someone walks in. Do you make that exceptional? The ones who are going to win are the ones who recognize that the first touch point is incredibly impactful.

Spend time as a "patient" in your own office and experience all of the touch points for yourself. Are there areas for improvement to make the experience exceptional?

Why is it important to know your customer types?

Knowing your customers is no longer about segmenting them according to their ethnicity and bank account. It's about getting to know them deeply and understanding what they love and what they hate. Only when you have this knowledge can you create exceptional, relevant and very human experiences for them. Identifying customer types helps you to move from what your customers are to who they are.

Webb's take-aways

- **▼** Find out what customers love and hate
- ✓ Invent exceptional human experiences
- Spend time as a "patient" in your own office
- ✓ Get to know your customers deeply



Nicholas WebbFuturist, technology CEO
and inventor

KNOW THE PEOPLE YOU SERVE

Some customers are primarily interested in fast service. Some are focused on price.

Others are experiential and want to spend time looking at new products or displays.

Learning customer preferences means listening to them. Do a web search for "best eye exam" and see what comes up. Read online reviews about your practice. Pay attention to your practice's physical appearance and the first visual impression it makes on potential customers. First impressions are critical for all customer types.



Nicholas Webb is an author of seven books, including *What Customers Crave.*

CREATE A MEMORABLE GOOD-BYE

Send your customer off with a good-bye that makes them want to come back. It's a way to thank them and tell them you valued the experience and hope they did, too.

UNDERSTAND WHAT YOUR EMPLOYEES EXPERIENCE

Talk to your employees about what they need that they don't have. Find out when and how they interact with customers. Ask what they love and what they hate about their work. Find out if there are policies or systems in place that don't let them provide exceptional service.

What Astigmats Say About Contact Lens Wear

o Jim Hoffman, OD, FAAO, one number from the Multi-sponsor Surveys' 2018 Target Report on the Market for Toric Contact Lenses stands out. According to the report, 62 percent of astigmatic patients not currently in contact lenses but interested in trying contact lenses say that, at their most recent visit to an eye care practitioner (ECP), they had no discussion about contact lenses. The rest say they did discuss contacts, either with the ECP (29 percent) or with a practice staff member (9 percent). And yet, astigmats are as likely as non-astigmats to express interest in wearing contact lenses instead of eyeglasses.

The 2018 report asked prospective contact lens wearers what they consider to be important factors in choosing contact lenses. Comfort and quality of vision were among the top priorities when choosing lenses, followed by "healthiest for my eyes."

The guidance from an ECP has an effect. With every lens he prescribes, Dr. Hoffman describes the lens features and how it can provide the experience patients say they want. Then he lets the patient talk about the benefits they hope to derive from wearing lenses. "This completes the circle and makes the

Among astigmatic patients not wearing contact lenses, but interested in trying them

62%

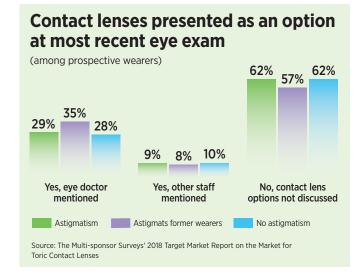
said they had no contact lens discussion at all 29%

said they
discussed contact
lenses with doctor

9%

said they discussed contact lenses with staff member

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses





Jim Hoffman, OD, FAAOOrange Park Eye Center
Orange Park, FL

Reasons cited for trying contact lenses

inconvenience of

wearing glasses

(among prospective wearers with astigmatism)

519

personal appearance **20**% better vision

better visio correction

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses

patient part of the experience," he says. "We want the patient to understand how this particular lens meets the needs we uncovered during the exam."

For example, for patients with -0.75D or more of cylinder, he shows them what their vision is like when their astigmatism is corrected. "I put in an Rx to take the astigmatism away and ask, 'What do you think: Better with astigmatism correction? Or not?" "The expression on their face shows how important better vision is to them," Dr. Hoffman says. When patients test their vision with and without the astigmatism corrected, he says, they tell him: "This is so much clearer. I am glad I am here. I did need the extra help."

According to the 2018 report, prospective contact lens wearers with astigmatism are more likely than non-astigmats, 41 percent versus 31 percent, to discuss contact lenses with their ECP and whether or not the lenses would fit their vision needs. They are less likely to discuss cost — 47 percent versus 64 percent.

In order to seize this opportunity for fitting our astigmatic patients with contact lenses, we need to initiate the discussion with all of our patients, says Dr. Hoffman. For those patients who are wearing eyeglasses only, make sure the conversation includes, "Why aren't we doing contact lenses today?"



LEARN MORE

Go to Innovation in Practice at http://blguide.reviewob.com and read:

STAFF MANAGEMENT

Creating a Friction-free Customer Experience

What kind of customer experience should businesses seek to provide?

The highest-quality customer experience is one that is as frictionless as possible. In the ideal situation, the only thing a customer would experience would be the elimination of whatever need or problem drove them to you in the first place.

Can technology sometimes produce customer friction?

Yes. Inevitably there will be times when technology won't work so well. And at every failure point, you need real people making real human decisions. When non-routine tasks come up, you need people to help understand the complexity of the problem. The human touch is more important as systems become more automated.

What role does a practice staff play in creating the best possible customer experience?

It is important to have employees who take it upon themselves to fix a patient's problem. Create a self-organizing culture. Empower associates so they can solve problems for customers. Particularly in medical care, humans need something more. They need empathy. They need commiseration. When patients say, "I have this eye problem. I don't know what I'm going to do. I don't want to wear glasses," what they are saying is "I want somebody who can relate to me. And you know what? Checkboxes don't relate to me." But if they are dealing with a human being, it is a sympathetic, engaged connection with a person. And not only is that patient going to be better served by that person, but the medical practitioner is going to be better served.

Peppers' take-aways

- **✓** Eliminate friction whenever possible
- The human touch is important
- **✓** Empower associates to solve problems
- ✓ Customers need empathy, sympathy



Don PeppersA management consultant on customer focused business strategies

ELIMINATE AS MANY OBSTACLES AS POSSIBLE

The very best kind of customer experience is one that is frictionless, that is reliable, valuable, relevant and trustable. The world is full of companies that deliver reasonably good customer service. Customers don't necessarily stay because they're satisfied, but they often leave because they're not. Before brainstorming all the ways you can surprise and delight them, make sure you have eliminated as many problems and obstacles as possible.



Don Peppers is the author or co-author of 11 books, including *Customer Experience:* What, How and Why Now.

BE RELIABLE AND RELEVANT

Your product or service should perform as advertised, without failing or breaking down. You should answer your phone, your website should work and service should be performed on time. This means rendering a product or service on schedule, seamlessly across multiple channels and consistently through time, in such a way that it doesn't need undue attention from a customer to meet the customer's needs.

SEEK OUT CUSTOMER FEEDBACK

Hearing feedback from customers is essential if you plan to improve the customer experience over time. When your company is fortunate enough to hear a complaint from a customer, your policies and employee training should support five simple actions: Acknowledge, Apologize, Amplify, Ask, Act. Use this as an opportunity to improve the customer experience. Turn the negative into a positive by training staff on how to handle complaints.

Getting Patients to Talk About Their Eye Health Experience

s eye care practitioners (ECPs) we are trained to make evidence-based decisions about how to treat patients, says Monica Johnsonbaugh, OD.

Yet some of that evidence can be hard to get. A survey done by Bausch + Lomb and Kadence International highlights the degree to which patients withhold some important details about their eye health.

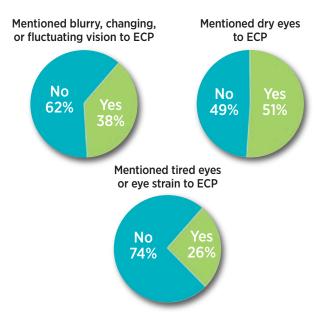
Among patients who reported occasional episodes of blurry, changing or fluctuating vision, 62 percent said they didn't tell their ECP, according to the survey. The numbers are even higher for patients with occasional tired eyes or eye strain — 74 percent of those patients in the survey said nothing to their ECP.

One reason patients might be tight-lipped is that they sometimes blame themselves. The survey reports that regarding blurry vision, 43 percent of patients think they are at fault. They cite reasons such as spending too much time at a brightly lit computer screen or just having sensitive eyes.

Another 39 percent put the fault on their contact lenses, citing causes such as lenses shifting around while on the eye or the presence of dirt or other irritants on the lenses. Even then they take some of blame, with some patients reporting their discomfort was caused by wearing the lenses for too long.

Dr. Johnsonbaugh says providing patient-specific solutions to evolving visual challenges requires a thorough exploration of the patient's experience and needs. It is worth the effort to tease

Patients can be reluctant to share

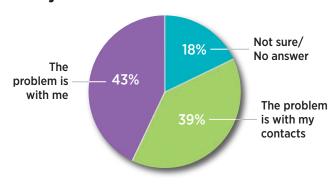


Source: Kadence International. Exploring blurry, changing or fluctuating vision associated with contact lens wear. January 2012.

Monica Johnsonbaugh, OD Focus 313 Eyecare Grosse Pointe, MI



Reasons patients cited for their blurry vision with contact lenses



Source: Kadence International. Exploring blurry, changing or fluctuating vision associated with contact lens wear. January 2012.

out those details. "I ask, 'Why are you not wearing contact lenses?' If I find they have and have dropped out, I explore why and tell them, 'There have been important advances in contact lens technology."

Dr. Johnsonbaugh finds it remarkable that many new patients who are otherwise tech-savvy walk in the door wearing eyewear with outmoded optics. She looks for chances to engage even satisfied wearers in a conversation. "I ask patients how they feel in their lenses. If I hear, 'I take them out the moment I get home' or 'My eye sight fluctuates throughout the day,' I tell them that those details will help me provide them with a better option."

It's important that patients know the practice staff and ECP want to hear about their eye health experience, she says. With toric lenses, she actively suggests that option to patients who would benefit. "Some doctors wait for the patient to ask, but I just do it."



Finding a New Mindset in a Changing Marketplace

What kind of change do today's business leaders need to make?

We're transitioning from what I believe to be the most significant marketplace shift of the 21st century, from the business defining the individual to the individual defining the business. We need to shift from looking out for the business to looking out for the individual. We need to anticipate the unexpected. We need to take our own experiences and our own ability to ask how do we begin to be more comfortable with risk taking — trying something new? When we take a step back we begin to see the opportunity in everything. Business leaders should accept the new reality that we must learn to lead in the age of personalization.

One of your key points is that practitioners need to see themselves as "thought leaders." What does that mean?

The practitioners need to view themselves as thought leaders, and see themselves as subject-matter experts based on what they're learning from their patients. They don't realize the influence that they have. Those who get into healthcare typically love serving people. So this should all resonate with them. This is the mindset practitioners have to have, to better prepare them to continuously renew and reinvent themselves as a practice.

What is the importance of inclusion and individuality in a business culture?

We're moving from consumers or people in the work-place believing that the business has all the answers. This means that the individual believes the business should value their perspective because they have diverse experiences. Individuals now say, "You have to know me well enough to know how that technology will benefit me." For example, they want to know how that technology can help their eyes or their vision correction. The doctor needs to convey "I'm going to find out what's right for you."

Llopis' take-aways

- ✓ Anticipate the unexpected
- **✓** *Disrupt the status quo*
- ✓ Avoid the traps of complacency
- See opportunity in everything





STRATEGIES FOR CHANGING YOUR MINDSET

In his book, Glenn Llopis outlines a mindset that empowers leaders to evolve and stay ahead of the rapid changes in the workplace and marketplace. Included in the mindset are concepts such as:

- identifying and closing opportunity and performance gaps to remain relevant;
- avoiding the traps of complacency and unknowingly creating tension to thrive in a wisdom-based economy; and
- maximizing the full potential of everyone in the workplace.



Glenn Llopis is the author of The Innovation Mentality and chairman of the Glenn Llopis Group, a workforce development and human capital consulting firm.

ANTICIPATE THE UNEXPECTED AND SEE THE OPPORTUNITY IN EVERYTHING

Take your experience as practitioners and ask, "How do I grow more comfortable with risk taking?" Take a step back and begin to see the opportunity in everything. Create an environment in your practice where everyone is given the resources and tools to thrive. Challenge your staff to try new ways of doing things in their jobs to improve outcomes.

WORK WITH A GENEROUS PURPOSE AND LEAVE A LEGACY

Share growth strategies and build stronger relationships with your staff and with your patients. Strong bonds occur when employees and patients are treated like family. The way you multiply success is your ability to share. Leave a legacy — that means strengthening the overall value of your profession.

UNLEASH YOUR PASSIONATE PURSUITS

Don't let the pressures of the marketplace define what your career opportunities are. Set your own goals and focus on those things that matter most to you and what you believe in. This approach will let your unique talents and those of your staff emerge. Learn from the experiences of others. Don't let negative feedback disrupt your goals — appreciate feedback, good or bad, and learn from it. But don't let it disrupt your focus.

Recapturing the Former Toric Contact Lens Wearer

ne of the challenges of providing quality care is persuading people who have been seeing an eye care practitioner (ECP) for many years that there are advanced options for correction of vision problems, especially among those who have previously dropped out of contact lens wear, says Scott Schachter, OD.

Many patients hold dated assumptions about astigmatism and contact lens wear. "People are pretty good at hearing they are nearsighted or farsighted, but when they hear they have astigmatism, they fall victim to what I call the 'stigma of astigmatism," he says. "I simply tell them, This is very correctible."

According to the Multi-sponsor Surveys' 2018 Target Report on the Market for Toric Contact Lenses, astigmatic eyeglass wearers are much more likely to have discontinued contact lens wear than their non-astigmatic counterparts. The majority of former contact lens wearers with astigmatism — 64 percent — stopped wearing contact lenses 10 or more years ago. So this is a great opportunity to recapture these potential contact lens wearers by fitting them in a toric lens with innovative, advanced technology.

Many of these former contact lens wearers cited vision problems such as failing to correct astigmatism or provide good vision correction for discontinuing contact lens wear. This is not

of former wearers with astigmatism dropped out while wearing a single-vision spherical lens

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses

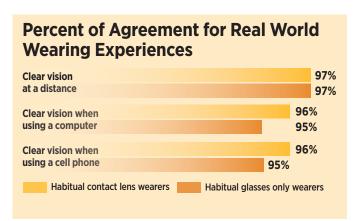
surprising given that the majority of astigmatic former contact lens wearers dropped out while wearing a spherical lens. In his exam room with astigmatic patients, Dr. Schachter demonstrates the difference. I'll say, 'Let's put in a contact lens that corrects for your astigmatism.' Then, when I ask my patient to look at their phone and look out the window, they notice a pretty big difference."

Developments in toric contact lens technology can help today's ECP. Improvements in the past 10 years have changed the experience for contact lens wearers with astigmatism. Current astigmatic contact lens wearers believe contacts are better than glasses for appearance, fitting their lifestyle and comfort. "With the Biotrue® ONEday for Astigmatism lenses, there is good orientation, good stability and good comfort," he says. "Firsttime success has been outstanding, and that gives us a tool to differentiate our practice."

For example, a survey of patients who completed an evaluation program for Biotrue® ONEday for Astigmatism



Scott Schachter, OD Vision Source Pismo Beach, CA



contact lenses shows that both habitual contact lens wearers and habitual glasses-only wearers rated vision and comfort as outstanding with the lenses. The data shows 97 percent of both habitual contact lens wearers and habitual glasses-only wearers reported clear vision at distance. When using a computer or tablet, the response was nearly the same for those two groups, with 96 percent and 95 percent respectively reporting clear vision. For clear near-vision when using a cell phone, 96 percent and 95 percent, respectively, rated their vision as outstanding.

Presenting innovative technology and delivering a memorable patient journey are key to thriving in a changing world. "You've got to be better than the competition in order to survive," says Dr. Schachter. "We strive to always deliver a personalized experience and to differentiate our practice with innovative technology."

of former contact lens wearers with astigmatism stopped wearing contact lenses 10 or more years ago

Source: The Multi-sponsor Surveys' 2018 Target Market Report on the Market for Toric Contact Lenses





ASTIGMATIC

SUCCESS

from chair

TO WEAR

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The **only** monthly toric lens with a -2.75D Cylinder in your fit set



Contact your representative to request lenses for your office



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Meeting the Dynamic Needs of the Astigmatic Patient Through Material Science and Lens Design

INNOVATION IN MATERIAL SCIENCE

ontact lens wearers live and work in a range of environmental conditions that can impact their wearing experience. During each day, the eye blinks thousands of times. Providing a smooth, lubricious surface is important in distributing and maintaining the tear film across the surface of the lens between blinks. As soft hydrogel and silicone hydrogel contact lenses are made from various polymers, it is important that the contact lens materials are designed to sustain the integrity of the tears and surrounding ocular tissue. Bausch + Lomb material scientists developed two unique materials to meet the comfort and vision needs of today's contact lens wearer.

The Biotrue® ONEday contact lens material, nesofilcon A, has more moisture than any other contact lens. The material brings together the building blocks to form a polyvinylpyrrolidone (PVP) polymer which represents the most abundant component of the lens. While PVP is extremely water loving, the moisture would be of limited benefit without a way to prevent evaporation. A surface active macromer, Poloxamer 407, is integrated into the polymer mix to lock in moisture by migrating to the surface of the lens as it cures. The unique chemistry behind Biotrue® ONEday allows it to maintain 98% of its moisture for up to 16 hours.

The Bausch + Lomb ULTRA® contact lens materials, samfilcon A, was also designed to maintain a high moisture content for a silicone hydrogel lens. The material incorporates a unique combination of three silicone monomers to form a silicone backbone. Following this formation, the building blocks of PVP

Today's contact lens designers
are challenged to take innovative
contact lens materials and
develop advanced lens designs
to address the dynamic tasks
of the astigmatic patient.

grow throughout and around the silicone backbone. Through the MoistureSeal® technology process, a high volume of PVP is incorporated throughout the lens and the PVP at the surface is tightly compacted to form a highly wettable, smooth surface. The unique chemistry of Bausch + Lomb ULTRA® allows it to maintain 95% of its moisture for up to 16 hours.

Daily duration of astigmatic patient real world activities

ACTIVITY	AVERAGE HOURS
Driving	1.9
Watching TV	2.0
Playing sports, running, other exercise	1.3
Using a computer or laptop at the office	4.7
Using a computer or laptop at home	1.7
Looking at a smartphone, tablet, or e-book	2.5
Reading books, magazine, newspapers	0.9

*Astigmatic patient user experience evaluation, Bausch + Lomb.

ADVANCES IN LENS DESIGN

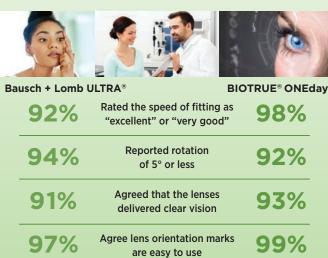
The astigmatic eye presents itself in many different shapes and sizes, and as diverse as the eyes appear, the eyes are also used for diverse tasks. Today's contact lens designers are challenged to take innovative contact lens materials and develop advanced lens designs to address the dynamic tasks of the astigmatic patient...whether working at a computer, watching a movie, or driving to a destination at night.

Bausch + Lomb clinicians and lens designers studied the bio-mechanics of the blink over a wide variety of eyes with diverse shapes and sizes. High speed videography was used to measure the blink motion of the upper and lower lids to provide a better understanding of lid movement and the role it plays in stabilizing a toric lens. The research demonstrated that the upper lid moves vertically and in an elliptical pattern across the palpebral aperture. The lower lid moves horizontally and has limited vertical movement.

In developing the Biotrue® ONEday and Bausch + Lomb ULTRA® contact lenses for Astigmatism, the Bausch + Lomb lens designers considered the unique characteristics of the lens polymers together with the anatomical characteristics of the individual's eye and blink pattern. Lens geometries were optimized through clinical assessments of designs with varied lens diameter, lens sag, superior thickness, center thickness, inferior thickness, maximum ballast thickness, peripheral blending, edge thickness, and edge profile. Through extensive clinical testing, the final designs were selected that leverage the downward movement of the upper lid to keep the lens correctly oriented.

Both Biotrue[®] ONEday and Bausch + Lomb ULTRA[®] contact lenses for Astigmatism have one rotational orientation mark at

Demonstrated Fitting Success



the 6 o'clock position on the lens. The orientation mark was designed to be easy to visualize and facilitate the ease of fitting by helping the ECP determine the orientation of the lens on eye. The orientation mark also helps patients insert the lens with the mark positioned towards the lower lid.

To assess the fitting characteristics of the lens among a diverse population of patients, 7 ECPs fitted the final lens designs in individual studies. ECPs evaluated fit characteristics individually on 157 patients with Bausch + Lomb ULTRA® and 123 patients with Biotrue® ONEday contact lenses for Astigmatism. Ratings of fit characteristics demonstrated that both lenses maintained excellent orientation, the orientation marks were easy to see, the speed of fitting was excellent or very good, and the lenses delivered clear vision.

ASPHERIC OPTICS TO HELP REDUCE HALOS AND GLARE

Spherical aberration is the term used to describe the blurring of images that occurs due to the spherical shape of a lens. This blurriness occurs when light from the outer edges of a lens focuses at a different point than those rays that strike the inner portions of the lens. The phenomenon of spherical aberration is not unique to eyes and contact lenses, but rather applies to the basic principles of optics associated with lenses and mirrors. Spherical aberration has been established as an optical defect of lenses with spherical surfaces and results in reduced image quality when present in optical systems such as microscopes, telescopes, mirrors and the eye. In the eye, reduced image quality associated with spherical aberration is significant in low-light, large pupil conditions.

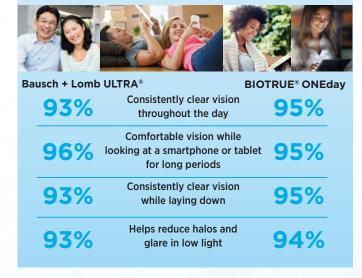
Both Biotrue® ONEday for Astigmatism and
Bausch + Lomb ULTRA® For Astigmatism contact lenses

are designed to reduce the positive spherical aberration value that is naturally occurring in the human eye as well as the spherical aberration of conventional spherical contact lens optics. The lenses have an aspheric design on the anterior surface and a biconic design (aspheres in both flat and steep meridians) on the posterior surface to provide toric optics and spherical aberration control in both axes across the power range. By reducing the amount of spherical aberration with aspheric optics, the lenses are designed to improve image quality and reduce halos and glare.

REAL WORLD EXPERIENCE OF ASTIGMATIC PATIENTS

To assess the real-world performance among a diverse population of patients, separate performance evaluations were conducted by ECPs who were asked to fit their astigmatic patients into Biotrue® ONEday (n=1001) or Bausch + Lomb ULTRA® (n=426) contact lenses for Astigmatism. After a minimum of 4 days of wear, the patients completed an online survey designed to evaluate satisfaction (using a 6-point agree/disagree Likert scale) across a variety of real world conditions. Ratings were consistent between the two products and demonstrated that both lenses provided clear vision throughout the day, comfortable vision while using digital devices, consistently clear vision while laying down and the lenses helped reduce halos and glare in low light.

Real World Experiences for Wearers



Innovations in material science and lens designs of Biotrue® ONEday or Bausch + Lomb ULTRA® contact lenses for Astigmatism can meet the dynamic needs of astigmatic patients by providing consistently clear vision and comfort throughout the day. The advanced lenses also offer the excellent stability and speed of fitting needed for toric lenses in a busy ECP practice.



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Professional Editor

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Dr. Wesley graduated from The Ohio State University College of Optometry in 2006 and was named Graduate of the Year. She also received a master's degree at OSU in vision science, and was named Minnesota's Young Optometrist of the Year in 2011. In 2013 she was selected by readers of *Review of Optometry* and *Vision Monday* as an Optometric Business Innovator.



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Dr. Hoffman started practice in 1981 in Jacksonville, Florida after graduating *summa cum laude* from the University of Houston College of Optometry. He is the senior partner in a large, two-location private practice with seven doctors and 35 staff. As a full scope, independent practice, Orange Park Eye Center emphasizes treatment for dry eye disease, specialty contact lenses, glaucoma and medical retina. Dr. Hoffman is proud to be a Fellow of the American Academy of Optometry.



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Dr. Johnsonbaugh is the owner of Focus 313 Eyecare in Grosse Pointe, Michigan. She serves as a consultant for Bausch + Lomb and lectures to doctors and students across the United States and internationally on advancements in the optometric industry. She has received many awards and honors throughout her career and authored and published dry eye research, which she presented at ARVO and the AAO. Dr. Johnsonbaugh received her doctor of optometry degree from Indiana University School of Optometry.



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Dr. Schachter received his doctor of optometry degree from Southern California College of Optometry and opened a private practice in Pismo Beach, California with an emphasis on ocular surface disease. Dr. Schachter is an Adjunct Clinical Professor at Marshall B. Ketchum University. He has presented scientific posters and published articles in peer-reviewed scientific journals. Dr. Schachter was recently named a Global Ambassador for the Tear Film and Ocular Surface Society and is the founder of Ocular Surface Academy and the Facebook group OSDocs. He has been a Vision Source Administrator since 2003.



TAKE A CLOSER LOOK

Biotrue® ONEday is the fastest growing family of daily disposables¹*

	Biotrue® ONEday	1-DAY ACUVUE MOIST	DAILIES AquaComfort Plus
Moisture content	78%	58%	69%
Oxygen level†	42 Dk/t	25 Dk/t	26 Dk/t
Spherical aberration control [‡]	~		
UVA/UVB protection§	~	~	
Patient rebate	\$200	\$100	\$120

Give your patients the lens with a smart combination of performance and value.



*WARNING: UV-absorbing contact lenses are NOT substitutes for protective UV-absorbing eyewear, such as UV-absorbing goggles or sunglasses, because they do not completely cover the eye and surrounding area. The effectiveness of wearing UV-absorbing contact lenses in preventing or reducing the incidence of ocular disorders associated with exposure to UV light has not been established at this time. You should continue to use UV-absorbing eyewear as directed. NOTE: Long-term exposure to UV radiation is one of the risk factors associated with cataracts. Exposure is based on a number of factors such as environmental conditions (altitude, geography, cloud cover) and personal factors (exched and nature of outdoor activities). UV-blocking contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-blocking contact lenses reduces the risk of developing cataracts or other evel disorders.

*Lens sales between March 2016-April 2018 among traditional hydrogels.
†Oxygen levels for single vision spherical (SVS) lenses only.

In SVS and toric lenses only.

"Annual supply rebate as of 03 2018 for existing toric wearer

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