



2020 FORESIGHT

ODs weigh in on their hopes and fears for the post-pandemic future.

BY KAREN ROMAN, EDITOR-IN-CHIEF

The 2019 novel coronavirus (aka COVID-19) threw everyone a curve ball this year, but optometrists are a resilient breed. After too many weeks of not practicing at all or treating only urgent and emergent cases, they are ready to see patients by any means necessary. *Modern Optometry* asked some of our contributors to share their thoughts on how the practice of optometry will look once the COVID-19 pandemic finally passes. Their comments touched on the future of practice, how meetings and conferences will take place going forward, and what technologies will come in handy. Here are some of their insights.

ON RETURNING TO PRACTICE



Thomas P. Arnold, OD, FSLS | Sugar Land, Texas

"It will be a long time until we return to business as usual, if ever. It is very

likely that COVID-19 will change our practice patterns for the foreseeable future. Even after the need for face masks, face shields, and hazard suits has passed, our patients will still come to expect that we demonstrate our commitment to visible, stringent disinfection regimens. Measures such as disinfecting exam lanes after every patient encounter, disinfecting eyeglass frames after patients try them on, limiting the number of family members present during examinations, wearing gloves as standard operating procedure, and no longer offering magazines or children's toys in the waiting area will become routine."



Tracy S. Swartz, OD, MS, FAAO, DIPL ABO
Huntsville, Alabama

"As long as social distancing is an issue, our practices will be different. I think it is important to demonstrate proper social distancing and disinfection so

that patients feel comfortable coming to the office for their care. My staff and I will be using gloves and masks, and we will be disinfecting the entire examination room, including surfaces, stands, chairs, slit lamp, occluder, the remote for my visual acuity system, doorknobs, and any other instruments used, to protect staff and patients.

"I will be doing more IOP measurements using the Tono-Pen Avia (Reichert) over standard Goldmann applanation tonometry (Haag-Streit), and I have been avoiding IOP checks when I felt it was required for the sporadic urgent cases I have seen in the past few weeks. I also have a face shield for performing intense pulsed light treatments, and I purchased a noncontact thermometer. Patients who arrive with fevers will be required to reschedule their appointments."



Josh Johnston, OD, FAAO | Atlanta, Georgia

"I'm optimistic. I think young people will be back for bread-and-butter optometry products such as glasses and contact lenses. But some of the older patient population, especially those who are at higher risk, may be slower to return.

"The unknown right now is whether we'll shake our patients' hands. I'm

hopeful that we will. But everything we're doing now—wearing masks, scrubs, cleaning and sterilizing rooms between patients, social distancing in the office, and decreasing capacity—is here to stay indefinitely, though I hope these end up being short-term measures.

“Another piece of this is culture and leadership. I see this as an opportunity to come back stronger. This is the time for us to build better practices, adopt new technologies, eliminate long-standing inefficient operations, and retain key staff members who are committed to rebuilding better office culture. Early on, some staff may have been making more money sitting at home with some of the financial stimulus models instituted during the pandemic, and they elected not to come back to work. We're returning to practice with a group that wants to be there. If the same is true for your practice, embrace this opportunity to work with these individuals who have advanced your business. It's going to be more efficient in many ways.”

ON MEETINGS AND CONFERENCES



Justin Schweitzer, OD, FAAO | Sioux Falls, South Dakota
“In our current situation the majority of

meetings, conferences, and continuing education (CE) credits will occur through virtual settings. I believe that, in order for us to continue to stay current and move our profession forward, in-person meetings and conferences are important. We all attend these meetings to learn, not only to better ourselves as doctors, but also to innovate together and share ideas. Many times, the innovative conversations happen between CE classes or over a meal with colleagues and friends.”

Dr. Swartz

“I am appreciative of the online CE that we have all benefited from recently, and I am working with local colleagues

to provide CE as well. I am president of the Optometric Cornea, Cataract, and Refractive Society, and our group was proactive in rescheduling our April meeting for November in Philadelphia. But I am concerned about holding this event even at that late date.

“As long as social distancing is required, our live meetings will most likely have to be virtual. I have benefited by attending online symposiums put on by opinion leaders in Europe, which have been amazing, but I will miss seeing colleagues in person. Lectures can easily be done online, but workshops cannot, and I will miss this activity. Hands-on experience is valuable, especially when industry gives us the opportunity to try a technology without purchase.”



Leslie E. O'Dell, OD, FAAO | York, Pennsylvania

“We are social beings by nature. Although

we have continued to work and connect through online platforms, we need human interaction. Virtual conferences are taking place for both small and large organizations. The small groups allow a more personal touch. Some companies have implemented doctor-only meetings, which are one-on-one webinars that can really elevate learning. Because of our social nature, live conferences will eventually resume, but the timing remains an unknown.”



Damon Dierker, OD, FAAO | Indianapolis, Indiana

“We will be more connected in terms of

access to content experts, high-quality CE, and innovations in industry as virtual programs become the norm. This will mean less business travel, more time with family, and attending smaller, regional in-person events when travel is required. State boards will have to adjust CE requirements for licensure to accommodate these changes.”

ON THE USE OF TECHNOLOGY

Dr. Johnston

“We'll see big changes with technology, especially with telemedicine and virtual check-ins. Adoption of telemedicine dramatically increased during the height of the pandemic, and it will be here to stay, although its use will obviously drop off once we start seeing more patients back in the office.

“We're also working toward virtual or curbside check-ins. In these arrangements, patients wait in their cars, and we text them a link to a portal to collect insurance information and to let them know when it's time to come in. Patients can be worked up remotely prior to coming into the office. This allows us to reduce the number of staff members in the office. Chief complaints and the initial part of the exam are conducted before the patient comes in, and then we use virtual checkout with touchless payments, and virtual scheduling for future appointments or surgeries. A lot of this will be here to stay until we have a vaccine.”

Dr. O'Dell

“Telehealth has been in use for some time, but there has been a significant uptick over the past several weeks. We are even seeing increased payment from payors such as Medicare to further support its continued use. This form of communication and examination will allow continuation of such services if in-person practice is interrupted again for any reason in the future.

“I foresee that additional at-home technologies will be born from this health crisis that will enable eye care practitioners to continue to provide top quality care through a telehealth platform, as well as increased adoption of already available technologies such as at-home monitoring for patients with age-related macular degeneration.”

Dr. Dierker

“Use of telemedicine will shift from triage to chronic care. Technological
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THE SUNSCREEN-EYE HEALTH CONNECTION



Consider these factors when talking to patients about sun protection.

BY JESSILIN QUINT, OD, MS, MBA, FFAO

The warmer months are upon us, which means many people will be spending more time outside soaking up the sun. A common and well-known risk factor for skin cancer is prolonged UV radiation from sun exposure.

The periocular region (the eyelids) makes up only 1% of the body's surface area, yet it accounts for between 5% and 10% of all skin cancers.¹ It is believed that this is because most people do not apply sunscreen to their eyelids or do not wear proper

ocular sun protection.² Eyelid skin is uniquely thin (<0.2 mm thick), putting it at high risk for photodamage.³

Should optometrists and other eye care providers be discussing and recommending that patients apply sunscreen to their eyelids? Absolutely. But first we need to recognize how the ingredients of these products can affect eye health. In this article I discuss five important facts about sunscreen. Know these, and you can rest assured you're making the best recommendations to your patients.

FIVE FACTS YOU SHOULD KNOW ABOUT SUNSCREEN



No. 1: UV-A/UV-B Basics

If we think back to optics class, we might remember that UV light has shorter wavelengths than visible light, which means we can't see it. But it can greatly affect the skin. There are three main subdivisions of UV light. UV-C is absorbed 100% by the ozone. UV-A and UV-B wavelengths are transmitted through the atmosphere and are associated with increased risk of skin damage.

UV-A has longer wavelengths (315-400 nm) and is more strongly associated with aging, pigmentation, and increases in the number of inflammatory cells in the dermis. UV-B has shorter wavelengths (280-315 nm) and is more strongly associated with skin burning and DNA strand breaks.⁴



No. 2: Product Labeling

Regulation of photoprotection products, including sunscreen, varies per country. Because of this, sunscreen labeling and protection scoring also

COMMON CHEMICAL INGREDIENTS IN SUNSCREEN

UV-A Blockers

- anthranilates
- avobenzones
- benzophenones
- ecamsule

UV-B Blockers

- aminobenzoates
- camphor derivatives
- cinnamates
- ensulizole
- octocrylene
- salicylates

vary. In the United States, sunscreen products are regulated by the FDA, which is expected to promulgate new labeling categories later this year.⁴⁻⁶

Sun protection factor (SPF) measures UV-B transmission; it is the ratio of the amount of UV radiation required to burn protected skin to that of unprotected skin. An SPF of 30 means it would take 30 times longer to burn protected versus unprotected skin. An SPF of 15 provides 93% protection from UV-B, SPF 30 provides 97% protection, and SPF 50

provides 98% protection.

Beware of products with high SPF values (eg, SPF 100), as these often do not statistically offer much more protection than products with lower SPF values and always have a substantial chemical ingredient profile.

Persistent pigment darkening (PPD) is a test used primarily in Asia and Europe to measure UV-A. This measure describes how much persistent darkening (tanning) of the skin is caused by UV-A. PPD ratings range from 0 to 16+. A PPD of 10 means that it will take around 10 times longer for protected skin to tan compared to unprotected skin. The higher the PPD number, the more UV-A protection the product allegedly provides.

Protection grade of UV-A rays (PA) is a rating system established in Japan, adapted from the PPD method.

- PPD 2-4 = PA+ (some UV-A protection)
- PPD 4-8 = PA++ (moderate UV-A protection)
- PPD 8-16 = PA+++ (high UV-A protection)
- PPD 16+ = PA++++ (extremely high UV-A protection)

Broad spectrum, describing a product's protection grade against UV-A, is a label primarily used in North America. The actual protection from UV-A under this category is vague, but it does indicate some level of UV-A coverage. For a product to achieve a "broad spectrum" rating, it must absorb 90% of total UV light at

wavelengths below 370 nm.

Reef-safe or *reef-friendly* is a label used to identify products that do not contain chemicals known to cause harm to marine ecosystems. Oxybenzone and octinoxate are two ingredients toxic to marine life that have been banned in many places including Hawaii; Key West, Florida; and the US Virgin Islands.

No. 3: Chemical Versus Mineral



Both *chemical* and *mineral* categories of sunscreen shield skin from UV light, but each

has a different mechanism of action. Chemical (organic) sunscreens work by allowing UV light to penetrate the skin. As the light enters, it reacts with the chemical ingredients (see *Common Chemical Ingredients in Sunscreen*) to cause a reaction that converts the UV light to heat, which is then dissipated from the skin.

In contrast, mineral (also called inorganic or physical) sunscreens contain ingredients that sit on top of the skin to deflect or scatter UV rays so there is no penetration by those UV rays. Common mineral sunscreen ingredients include zinc oxide and titanium dioxide. Zinc oxide is more protective against UV-A light, whereas titanium dioxide is more protective against UV-B light.⁷



No. 4: Ingredients

It is vital to read both the active and inactive ingredient deck of sunscreen products. The same preservatives and ingredients that are harmful to eye health in skin care and makeup products are often also present in sunscreen. You don't want to recommend a sunscreen product for eyelid application that is going to lead to dry eye disease, ocular surface disruption, dermatitis, or meibomian gland dysfunction. Furthermore, chemical sunscreen ingredients can cause skin inflammation and

AT A GLANCE

- UV-A and UV-B light wavelengths are transmitted through the atmosphere, and they are associated with risk of skin damage.
- For a sunscreen product to achieve a "broad spectrum" rating, it must absorb 90% of total UV light at wavelengths below 370 nm.
- Proper application and reapplication are just as important as the type of sunscreen used.

irritation in addition to initiating rosacea flare-ups, systemic hormone disruption, and even cancer. Because of this, many dermatologists prefer to recommend mineral sunscreen products.⁸



No. 5: Application

Proper application and reapplication are just as important as the type of sunscreen used. Many patients avoid the periocular region during application.² Best practice is to apply sunscreen 30 minutes before heading outside and then reapply every 2 hours. Sunscreen should be immediately reapplied after swimming or excessive sweating. It should also be worn on cloudy days and indoors if windows are present.

For makeup wearers, there are now

sunscreen powders and setting sprays available to allow reapplication without smearing makeup. The sunscreen in makeup alone often does not provide enough protection from UV-A and UV-B rays.

A DUTY TO EDUCATE

It is important for optometrists to be knowledgeable about how sunscreen products and their use can affect ocular health. And, although further research is needed, we have the responsibility as primary eye care providers to have a discussion with our patients about photoprotection in the periocular region. Sunglasses and hats are important, but sunscreen application to the eyelids in a safe way is also needed.

As Ben Franklin wrote, “An ounce of prevention is worth a pound of cure.”

Let’s protect our patients and educate them on this important topic. ■

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advances will allow us to take care of dry eye, glaucoma, age-related macular degeneration, and other conditions with a hybrid approach. We will have fewer office visits and more frequent virtual check-ins, perhaps leading to better outcomes through education and improved compliance. Patients will readily embrace this model.”

Dr. Swartz

“I practice in a medical setting, but I am concerned for my colleagues who accept vision plan patients and will need to incorporate social distancing into their practices. How can the patient flow required for social distancing be sustained in the long term, and who will be able to accept the reimbursement level of vision plans with such requirements in place? I am not sure how one can clean the dynamic inventory of a dispensary and exam rooms while continuing to see patients at pre-COVID-19 speed. I do not think we can responsibly see patients as quickly as \$40-per-exam reimbursement requires. I am hopeful

that these requirements will not be in place for too long. Until then, we will need to use the technology available to us to deliver care to our patients as best we can.”

ON THE FUTURE

Dr. Schweitzer

“The big question on my mind, and I am sure on the minds of many others, is when will it truly be over? The number of cases of COVID-19 will decline with time, but will we ever return to a pre-COVID-19 scenario? I don’t have the answer, but I suspect that we will practice optometry differently going forward. Breath shields will be found on all slit lamps, handshakes will be eliminated, and a healthy smile and greeting will have to do. Telemedicine will play a role, although I believe eventually a small role, in the way that we manage our patients. It is my hope and belief that examinations with no need for masks, gloves, face shields, and goggles will happen again, and that our patients will see us smile and we’ll see them smile in return.”

Dr. Dierker

“Refractive care will continue to be an important element of optometry, but practices will need to offer more choices to consumers as online retailers grow in size and number. With an aging population, a shortage of ophthalmologists, and many innovators to help lead the way, now is the time to prepare ourselves for the expansion of medical optometry.”

Dr. O'Dell

“For years we have been battling online retailers who have been trying to take revenue away from our optical and contact lens businesses. Moving forward, we must continue to adapt and change to fit the needs of our patients. There is continued need for a more medically focused optometry practice. This health crisis has proven how essential optometrists are when it comes to the medical services we provide. A continued shift toward providing medical services will allow our referral surgeons to move more efficiently through their backlog of surgical patients once they start rescheduling elective procedures.” ■