

ABOUT THE PANELISTS



Rookaya Mather, MD, FRCSC (moderator)

Dr. Rookaya Mather is Associate Professor of Ophthalmology at the Schulich School of Medicine, Western University in London, Ontario. Her subspecialty practice is in medical and surgical cornea and external disease. She completed her fellowship training in Cornea & External Disease at the Proctor Foundation, UCSF in San Francisco, California. Dr. Mather is actively engaged in research and has published in various peer-reviewed journals. She is passionate about raising awareness about ergonomic optimization in ophthalmology.



Samuel Masket, MD

Dr. Samuel Masket recently retired as a Clinical Professor of Ophthalmology at the Geffen School of Medicine, UCLA and founding partner of Advanced Vision Care in Los Angeles. He is a past president of the American Society of Cataract and Refractive Surgery. Dr. Masket has published more than 150 peer-reviewed articles and two textbooks. Currently, Dr. Masket is the Chair of American Academy of Ophthalmology's Senior Ophthalmologist Committee.

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Terry Zavitz

Terry Zavitz is the Senior Vice-President of Zavitz Insurance and Wealth: A HUB International Company, focusing on insurance protection and specializing in disability insurance. Terry has handled hundreds of disability claims for physicians, business owners, and their employees. She was the Chair of the Women's Healthcare Campaign with London Health Sciences Centre, and plays an active role in many associations, including the YMCA, the London Health Sciences Centre, St. Joseph's Health Care, and various other local organizations.



Deepinder Dhaliwal, MD

Dr. Deepinder Dhaliwal is a Professor of Ophthalmology and Vice Chair of Wellness and Communications at the Department of Ophthalmology at the University of Pittsburgh. She is also the Director of Refractive Surgery and the Cornea Service at the University of Pittsburgh Medical Center (UPMC) Eye Center. Dr. Dhaliwal also serves as the Director of the UPMC Vision Institute's Laser Vision Center and the Associate Medical Director of the Campbell Ophthalmic Microbiology Laboratory.

Musculoskeletal Injuries and Ophthalmologists: Prevention Requires a System-Level Approach

A Roundtable Discussion

Rookaya Mather, MD, FRCSC (moderator)

Samuel Masket, MD

Terry Zavitz

Deepinder Dhaliwal, MD

Musculoskeletal injuries make up about 15% of physicians' insurance claims. These injuries lead to patient care disruptions, cancelled surgeries, significant disability, and early retirement. Dr. Rookaya Mather sat down with three fellow advocates for physician wellness and WMSD prevention, including two fellow ophthalmologists and a disability insurance expert. They discussed the factors that contribute to injury – from the culture of medicine to suboptimal ergonomic design of examination and surgical equipment – and the role that insurance companies, practising ophthalmologists, academic institutions, and manufacturers can play in preventing injury.

Rookaya Mather: This topic is a very personal for me. I recently had a work-related injury that required a brief disability leave. In researching what I could do to prevent further injury, I quickly realized injury prevention requires a system-level approach. As ophthalmologists, we focus our attention and efforts on delivering great care to patients. We don't recognize that our work places us at risk for developing work-related musculoskeletal disorders. How common and problematic are work-related musculoskeletal injuries among physicians?

Terry Zavitz: Physicians are always taken aback when they become injured and can't work. No one thinks a debilitating injury will happen to them. These injuries are physically painful and challenging on many levels. It's not easy for doctors to take time off work and seek treatment since physicians feel a deep sense of obligation to their patients and colleagues. The role that I play is to

help physicians get the support they need from their insurance company so they can recover and return to the profession when they're ready.

Samuel Masket: When I trained, which was a long time ago, we were not (or no one was) having discussions about how we can use instruments like slit lamps and operating microscopes in a way that protects and preserves our own bodies. Approximately 15% of ophthalmologists retire early because of musculoskeletal disorders. This is a significant workforce issue, particularly with the aging population. In the United States, ophthalmologists are retiring at a faster rate than new ophthalmologists are entering the workforce. I retired during the pandemic because I developed numbness and tingling in my neck as a result of my surgical work.

Deepinder Dhaliwal: I also didn't have any training on how to properly use a

slit lamp or how to position myself at the microscope. The focus was on making the patient comfortable. In the past, I would have the patient sit back comfortably in the examination chair and I would have to lean forward awkwardly over them. I did this for many years until I had a fall in the operating room. I slipped and fell due to water on the floor of the operating room. I injured my back and my imaging revealed that I had a very large disc herniation. I had severe pain and weakness in my leg that continued to get worse until my physical therapist said I needed to stop working. I had to cancel all my patients' surgeries. It was devastating.

Fortunately, my recovery only took two weeks. Every day during those two weeks, I did physical therapy, acupuncture, or meditation. I consulted more than one physical therapist. The exercises recommended by the first two physical therapists didn't help but the third physical therapist, who I call the spine whisperer, used the type of spine manipulation that was ideal for my back. He took a personalized approach and taught me how to strengthen the multifidus muscle along the spine. The improved stability of my spine was key to my return to the operating room. One piece of advice I have, is to not give up and say, 'this treatment isn't working,' but to try different methods and different practitioners.

Unfortunately, many of us take the approach of "Just keep going" and we manage the pain with ibuprofen without seeking professional help. In my case, I had to hit rock bottom which was scary. It wasn't until I had severe nerve pain that medication didn't alleviate, that I decided to make changes in my life. I focused on healing myself so that I could go back to work stronger, with a completely different mindset.

RM: The word 'scary' sums it up. There is a perfect storm of a lack of awareness and education about injury prevention, the suboptimal ergonomics of our procedure

and exam equipment, and then the culture in medicine, that we don't complain. In 2017, my colleagues and I conducted a survey of Canadian ophthalmologists. The vast majority said they dealt with musculoskeletal problems with rest and self-medication. Only 25% of those surveyed sought care from their physician for their injuries. How do we train our future ophthalmology workforce so they know how to prevent injury as well as seek the appropriate care afterwards?

SM: We need to have conversations at the highest academic level, as well as in specialty-focussed literature, as we're doing here. Ergonomic practices and wellness in general should become part of the curriculum and given as much weight as slit lamp training. This isn't just important for the individual, but also the workforce. We are going to be significantly understaffed in the foreseeable future if we don't focus on injury prevention.

TZ: The lack of awareness is especially acute when it comes to the importance of intervening early and not waiting until one is totally disabled. Some types of disability coverage aren't available until you're totally disabled, and you've been off work for 90 days with an injury. But there are ways to get support before an injury is debilitating. In Canada, most physicians have partial disability coverage. They're reimbursed based on the difference between their annual income prior to their partial disability and afterward. This allows physicians to take a short time off from work, or reduce their hours, before they have a more difficult-to-treat injury.

DD: We need a module in the Basic and Clinical Science Course (BCSC) on how to stay well as physicians. Universities have physiotherapists, physiatrists, and other extremely knowledgeable colleagues who could help us create this module for ophthalmologists. We should have a checklist that we run through when we're using the slit

lamp or the microscope so that we know we're adopting the right posture. We could also use stickers to put on equipment, that remind us of the correct posture. As an ophthalmology community, we can increase awareness with videos and social media posts as well. There are many ways to reach trainees all the way to our senior colleagues. It's never too late to incorporate body awareness and injury prevention into our daily practices.

SM: On an uplifting note, I'm aware of at least two institutions, the University of Michigan and Wills Eye Hospital, that have incorporated an ergonomic approach into the training of residents and fellows. In addition to physiotherapy, yoga, and other types of exercise are important to increasing our physical resilience when working with equipment that's not ideal from an ergonomic perspective.

We also need to engage ergonomic experts and manufacturers' associations. I have spoken with many people who work for equipment manufacturers, and they are aware of the problems of the slit lamp. We could create an ophthalmologist-led designation that indicates equipment has been ergonomically tested. Manufacturers might strive for the highest ergonomic rating. For too long, we've had to deal with one-size-fits-all slit lamps. This contributes to the fact that female ophthalmologists experience more musculoskeletal disorders than their male counterparts.

RM: I agree Sam, engaging with industry is vital, because we need system changes that go beyond what individual ophthalmologists and practices can do.

RM: I want to pivot now to the value of disability insurance coverage. How should ophthalmologists protect their careers financially from career-interrupting or -ending musculoskeletal disorders?

TZ: Every physician should have their disability insurance reviewed annually to make

sure they have the right amount of coverage, not only to cover their own income, but also their office overhead, including rent, salaries, and fees. If you're 40, and you're earning \$250,000, with 2.5% income inflation, you will earn \$8.5 million over the next 25 years. This is significant value that you need to protect.

DD: When choosing disability insurance, "own occupation" is very important. If you're a cornea specialist and you have own occupation coverage, that means that if you can no longer be a cornea specialist, you'll be able to access your disability insurance, even if you were able to work in a lower-paying medical or non-medical role.

TZ: I agree that the "own occupation" definition of disability is vital in an insurance contract, as well as the ability to go on a partial disability claim. You also want options to increase your amount of coverage, regardless of your health status, so that you can ensure your coverage keeps pace with your income over the course of your career.

RM: Do you think the insurance industry has a role to play in physician injury prevention?

TZ: Insurance companies tend to be reactive. Most of the carriers will connect an injured physician with their rehabilitation departments or physical therapy to help them get back to work, but they're not proactive about preventing injury in the first place. This is changing, but right now, the preventative efforts of insurance companies are focused on mental illness; 57% of all physician complaints relate to mental health challenges.

SM: The data is pretty clear that physicians with musculoskeletal injuries are more likely to have mental health challenges, and vice versa. I think a committee that includes academic institutions could incentivize the insurance industry to promote injury prevention efforts, by demonstrating that investing in MSK injury prevention will cost insurance companies less money overall.

RM: Dr. Dhaliwal and Dr. Masket, I'd like to ask you how we can improve the ergonomics in our everyday practices right now.

DD: There are many low-cost or zero-cost changes that we can make. I ask patients to move towards the edge of the exam chair so I can remain in a good ergonomic posture for the entire slit lamp exam, that is, I sit with my ears over my shoulders and shoulders over my hips. When examining the retina, I try to adjust the patient's chair to the highest level so I'm not craning my neck. Every inch that we flex our neck forward increases the weight that the neck muscles need to support.

We can also take micro breaks in between patients and reverse the posture that we used for an exam. The otolaryngology literature has shown that stretching breaks in between surgeries are very effective at reducing pain and fatigue in surgical specialties. As ophthalmologists, we're lucky in that we can get up and stretch often. Patients may think we look funny, but it's vital that we stretch many times throughout the day.

There are many innovations that are happening as well. Industry is receptive. With the operating microscope, the heads-up display is exciting, though most heads-up displays require the specific angle set-up for each surgeon. I have also seen surgical stools, where the phaco and microscope pedals are on a platform, so they're always in a comfortable spot. There are also a number of different types of surgical chairs available with lumbar support.

SM: I photograph and take videos of my fellows at the microscope, so that I can raise their awareness about their posture and how they can adjust it. I also talk to them about the importance of exercise. The late Dr. Joel Shugar, who pioneered the intracameral use of a mydriatic and anesthetic combination and tragically passed away, used to do vigorous yoga to prepare himself for a day of surgery. We may not be LeBron James, but we perform

physically as well as mentally. We need to prepare our minds and our bodies, and if that understanding can be incorporated into the training curriculum, then, going forward, we'll be in a much better place.

RM: Thank you for sharing your personal experiences and taking the learnings you've had from these experiences to outline several viable system-level opportunities to prevent work-related MSK injuries. We've uncovered valuable insights into ways to promote ergonomic optimization in our practices and we've talked about the critical role of different stakeholders such as the insurance industry, the COS, the AAO, and residency training programs. We can all agree that enhancing our wellbeing and our career longevity also enhances the care we deliver to our patients everyday. Thank you for coming together to have this vital discussion.

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