



**RESEARCH SAVING SIGHT,
RESTORING VISION**
an Initiative of the
Alliance for Eye and Vision Research

NKCF
National Keratoconus Foundation

ALLIANCE FOR EYE AND VISION RESEARCH

In conjunction with:

**National Keratoconus Foundation (NKCF)
Research to Prevent Blindness (RPB)
Eye Bank Association of America (EBAA)
Assoc. for Research in Vision and Ophthalmology (ARVO)**

*Invites you to a Luncheon Briefing Recognizing
World Keratoconus Day 2021*

*Speaking with Keratoconus Patients
about Research and Treatments*

Wednesday, November 10, 2021

12 Noon - 1:00 pm

Featured Speakers:



Christopher Rapuano, MD
(Wills Eye Hospital)



Christine Sindt, OD, FAAO
(University of Iowa)

R.S.V.P. to Dina Beaumont @ 202-407-8325 or dinabeau@aol.com

Link to: <https://www.arvo.org/advocacy/NAEVR-virtual-events/>

AEVR, a 501(c)3 Non-Profit Educational Foundation, is pleased to host this widely attended global event, with event management support by Glaukos and streaming support by ARVO and Novartis.

Speaking with Keratoconus Patients About Research and Treatments

To attend on-site/receive Live Stream link, RSVP to: 202-407-8325 or Dinabeau@aol.com

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What is the Cornea and How Does Keratoconus Affect It?

The cornea is the transparent front of the eye responsible for refracting light; abnormalities of the cornea can severely affect the way we see the world. Keratoconus (KC) is an eye condition in which the normally round, dome-shaped cornea becomes weak and irregular. This results in vision distortion, double or blurry vision, and light sensitivity. Although the exact cause of KC is unknown, it appears certain individuals have a genetic predisposition to develop it, and environmental influences like frequent eye rubbing can trigger the onset of KC and also make it worse. Changes in vision are commonly first experienced during puberty and continue through middle age. KC affects both sexes and is a bilateral disease, meaning it affects both eyes, although it is almost always asymmetric. Sophisticated diagnostic testing can now detect variations in the shape and thickness of the cornea before changes in vision are noticed by the patient. This technology has revealed that KC, once thought to be a rare disease, is much more prevalent than previously understood. A 2021 cross-sectional study from Perth, Australia using sophisticated imaging found a prevalence of 1:84 (1.2%) in the population. Extrapolating this result to the current United States population, KC has the potential to negatively impact the lives of more than 3 million Americans.

How Have Research and New Treatments Benefited Patients with KC?

In mild cases, or in the early stages of KC, the vision changes are often misdiagnosed as astigmatism or myopia (nearsightedness) and the patient may be prescribed eyeglasses. As the disease progresses and vision changes continue, spectacles or soft contact lenses can no longer improve vision. Gas permeable (rigid or hard) contact lenses correct uneven corneas but are sometimes uncomfortable. New technology has increased the options for irregular or hard-to-fit corneas, as with KC. Scleral lenses are larger diameter contact lenses that sit on the sclera (white part of the eye) and vault over the misshapen cornea. Customized lenses can be manufactured based on an individual's cornea surface, which offers a one-of-a-kind lens that corrects irregularities and improves vision and comfort. In addition to contact lens innovations, there is a procedure that emerged from research that treats the disease. Corneal crosslinking (CXL), which received Food and Drug Administration (FDA) approval in April 2016, is a minimally invasive therapy that involves Vitamin B2 (riboflavin) eyedrops, followed by an application of ultraviolet light for a half-hour. CXL stiffens the cornea collagen, halting or slowing the disease and is now the standard of care for progressive KC. In cases when the cornea is so scarred or damaged that good vision cannot be achieved, a corneal transplant may be recommended, and the cornea is replaced with healthy donor tissue. Many advances in eye banking and transplant techniques, as well as the development of technology to diagnose and treat KC, have been supported by the National Eye Institute (NEI) within the National Institutes of Health (NIH).

The featured speakers will discuss how they speak with newly diagnosed KC patients about research and treatment options.

About the Speakers.....

Christopher Rapuano, MD is the Chief of the Wills Eye Hospital Cornea Service and Professor of Ophthalmology at Sidney Kimmel Medical College at Thomas Jefferson University. He is an internationally recognized expert in corneal diseases, with a special interest in vision correction surgery.

Christine Sindt, OD, FAAO is the Director, Contact Lens Service and Clinical Professor of Ophthalmology and Visual Sciences at the University of Iowa Carver College of Medicine. She is one of the country's leading experts in the treatment and management of patients with severe keratoconus.

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