

# INSIGHT

Bi-monthly Herald of the Association of Schools & Colleges of Optometry (ASCO-INDIA)



ARTICLES TO HELP YOU THROUGH

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## FROM THE PRESIDENT'S DESK



**Thoughts of a maverick...**

Finally we are seeing the light at the end of the tunnel. It was a very long nightmarish tunnel and the entire world was struggling to see the light again. We had almost lost hope. Now, hopefully we have left the night behind and we walk in the broad daylight with our heads held high, looking forward to a more humane and friendlier tomorrow's world.

Optometry world too walked together in this struggle with the rest of the healthcare community. Our contribution was no less significant as we catered to the eye care needs of our country people. The ocular

# FROM THE PRESIDENT'S DESK

**problems were taken care of and were not allowed to reach unmanageable limits. I salute to all the visionary warriors of the healthcare community.**

**We do not have time to rest now. Our efforts must double up to nullify the negativity of the past year and more. We need to strengthen our education and skills to handle any situation in the future. The NCAHP act was the silver lining to the dark clouds that surrounded us. Let us strengthen the healthcare delivery system of our nation. This is possible only if we strengthen our basic competencies in optometry.**

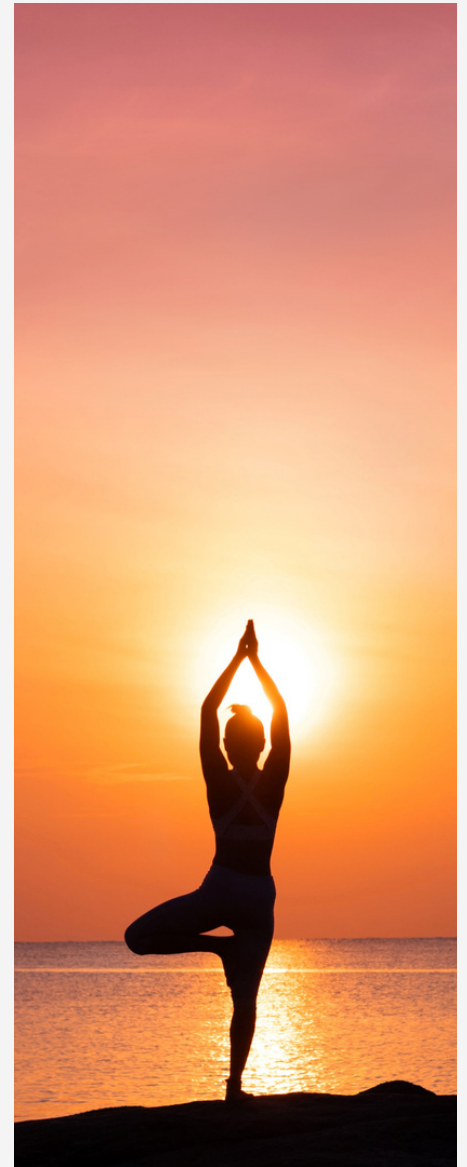
**Let us pledge to move ahead with this prayer...**

**Asato ma sadgamaya**

**Tamso ma jyotirgamaya**

**Mrityorma amritamgamaya**

**Lead us from darkness unto light O mother divine!  
Give us courage to assuage the sufferings and  
strength to tolerate the pain. We bow to you O  
mother!**





Association of Schools and Colleges of Optometry - ASCO, India announces its 2020 unique Fellowship program that offers a blended learning approach in three specialty subjects – Contact lens, Vision Therapy and Low Vision Care.

Application opens now..

**Facilitate. Educate. Upgrade.**

Salient features of the 1 year fellowship programme:

- +Candidates get to choose their mentor in the chosen speciality from the list of mentors
- +Two personal contact programs with the mentor
- +Hands on training and didactic lectures during two contact programs
- +Continuous evaluation of the candidate by the mentor
- +Exclusive access to the ASCO web portal with study materials on various specialty subjects of optometry from across the globe
- +Fellowship conferred upon successful completion of assignment, written exam and viva

Earn 10 OCI credit points on completion of the fellowship

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 Web: <http://www.asco-india.org/>



The fellowship is offered in three specialties:

- Contact lens
- Low vision care
- Vision therapy

The students in each speciality get hands-on training from mentors from the contact program of Fellowship.

The application for FASCO is open for the next batch.

The details can be available on:  
[www.asco-India.org](http://www.asco-India.org)

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FACILITATE. EDUCATE. UPGRADE.

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# FASCO

**Facilitate. Educate. Upgrade.**

Fellowship of Association of Schools and Colleges of Optometry (FASCO) in India is an initiative by ASCO to encourage and inculcate continuous learning among Optometrist in India and abroad.



# HOW ANISOMETROPIA AFFECTS AND HOW IT CAN BE TREATED

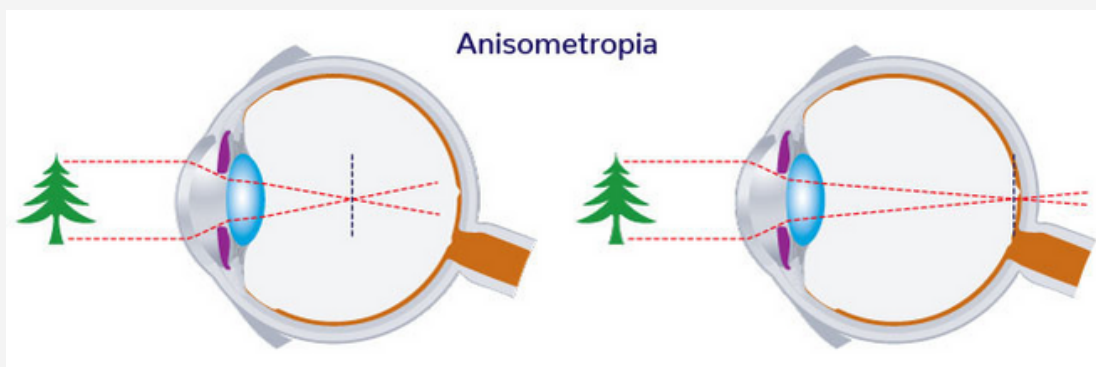
**SEBIN C SEBASTIAN**  
**Optometry-Intern**  
**Sankara College of Optometry, Punjab**

## What is Anisometropia?

If there is 1D difference in the refractive error between two eyes that occur in one or both principle meridians; it can be myopic, hyperopic or astigmatism.

## How can it be classified?

- **By refractive errors** if both eyes are either hyperopic it is called as anisohyperopia or if it is myopia it is called as Anisomyopia. If one eye is myopic and other eye is hyperopia then it is called as Antimetropia.
- **By magnitude**, the patients symptoms typically differ with the magnitude of the difference between the two eyes:
  - **0-2 D (LOW)**: the patient will tolerate full spectacle corrections with little difficulty
  - **2-6 D (HIGH)**: Patient will have binocular problems
  - **>6 D (VERY HIGH)**: Central suppression will be present



CLASSIFICATION OF ANISOMETROPIA	EXAMPLES
<b>Simple Hyperopic Anisometropia</b>	RE:PLANO LE:+2.00DS
<b>Simple Myopic Anisometropia</b>	RE:PLANO LE:-2.00DS
<b>Compound Hyperopic Anisometropia</b>	RE:+1.00DS LE:+3.00DS
<b>Compound Myopic Anisometropia</b>	RE:-1.00DS LE-3.00DS
<b>Simple Astigmatic Anisometropia</b>	RE:PLANO LE:PLANO/-1.50DCX180
<b>Compound Astigmatic Anisometropia</b>	RE:PLANO/-1.00DCX180 LE:PLANO/-2.00DCX180
<b>Mixed Anisometropia or Antimetropia</b>	RE:+0.50DS LE:-0.75DS

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## What are reasons of Anisometropia?

There are many reasons which cause anisometropia. It includes:

- Hereditary
- Congenital glaucoma
- Congenital cataracts
- Conditions causing eyelids closure
- Congenital 3rd nerve palsy
- Trauma
- Monocular lens extraction (unilateral aphakia)
- Refractive surgery

The main contributing ocular components are cornea, crystalline lens power, anterior chamber depth and axial length.

## How ocular and daily life will become difficult?

It can cause amblyopia. it can be one of the primary risk factors. It's also found that anisometropia of at least 1 D and with greater than 3 D of refractive error in the more ametropic eye was more significant risk for the development of amblyopia in children. If we are treating anisometropic amblyopia, it can improve visual functions in both children and adults.

Accommodation also gets affected due to asymmetric accommodation demand. There will be difficulty in accommodation, especially for uncorrected simple or compound



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AFFECTS DAILY LIFE

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anisometropic hyperopia. Finally it will cause accommodative asthenopia.

Fusion also gets affected because of difference in visual clarity between two eyes. It can also result in difficulties with fusing the two images into single clear binocular image. It will reduce the stereo-acuity also.

**Visual Efficiency:** Uncorrected anisometropia reduces visual efficiency. There may be a problem with reading. Once it's corrected these problems will decrease. The decrease in visual efficiency may possibly be a result of symptoms such as headache, eyestrain, diplopia, text distortion, or text movement.

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**Occupational concerns:** There is reduced visual acuity, contrast sensitivity, stereo-acuity and visual performance, These will reduce the occupational excellence.

**What is the treatment for this?**

For children, full amount of the anisometropia can be prescribed for making the retinal image clear. It also will help to prevent the development or progression of visual adaptation like suppression and amblyopia. In case of adult, if it was uncorrected anisometropia initially, it will be better if we are prescribing subjective refraction value and then increase prescription approximately after 2 to 3 months.



Improving the anisometropia will improve the visual clarity and binocularity. Contact lenses can be prescribed to minimize the difference in image sizes and eliminate the resultant prisms; it is the best option for unilateral Aphakia. If there is anisometropia, there will be a chance for amblyopia. In such condition, amblyopic therapy is also required for improving the vision.





# AUTOBIOGRAPHY OF MUCORMYCOSIS

**Chaksu Pahuja,  
Optometry-Intern  
Sankara College of Optometry, Punjab**

**You have a low immunity, I prevail in your environment, thanks for welcoming me. You know me, may be you don't let me introduce myself.**

**I am mucormycosis, you may call me BLACK FUNGAL infection. My mother and father are commonly called mucormycetes, who live in soil and in decaying organic matter such as leaves, compost piles and animal decay.**

**I may not harm you generally, But take care of me when you have a lung infection or sinuses. Some of my friends who help me causing infection are from- Mucor species or Rhizopus species.**

**How do you know you have me?**

- **I maybe RHINOCEREBRAL MUCORMYCOSIS- if you have facial swelling, congestion in nose or sinuses or any black lesions in nasal bridge or upper palate with fever.**
- **I may be PULMONARY MUCORMYCOSIS, if you have fever, cough, dyspnea or chest pain.**
- **I may be CUTANEOUS MUCORMYCOSIS, if it looks like ulcers or blisters turning your skin having black spots, swelling, etc.**
- **I may be GASTROINTESTINAL MUCORMYCOSIS, if you have abdominal pain, GIT bleeding, or vomiting.**



**YOU MAY CALL ME BLACK FUNGAL INFECTION**



## **Diagnosis**

**Some of my characteristics will let you know that I am prevailing in your body. Your own tissue biopsies will tell you if I am guiding you. Go for tissue biopsies and if not possible, all available specimens of sputum, sinus biopsies, pulmonary biopsies, radiological findings, ENT endoscopy are performed to reevaluate.**

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You see the tissue under microscope, what you find?

- Hyphae (which are ribbon like with large diameter(5-25 microns)) in sample.
- Specimens are observed when you give them KOH, or optically bright Calcoflour white or with Gomorimethamine silver or stain with Schiff dye.
- When you find your cultures are negative molecular identification from sample can help you know histological diagnosis.

### **Mucormycosis and Eye**

You may not be aware of my cause in eye, you will hear me as RHINOCEREBRAL MUCORMYCOSIS in eye. You have an episode of Diabetes Keto-Acidosis, your immunity is low, you permitting my friend named RHIZOPUS ORYZAE.

If you have my friend home, you are ready to have:

- Proptosis, chemosis, ophthalmoplegia
- Visual loss
- Nasal stiffness with epistaxis
- Black patches on skin/orbit near the eye.

### **Complicated- YES!**

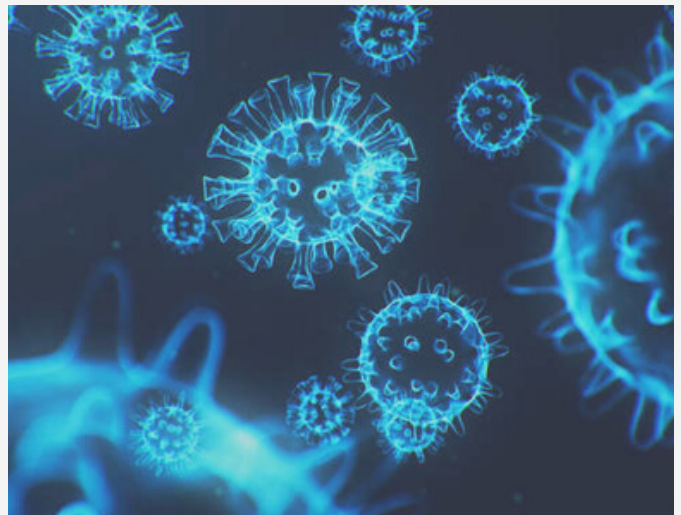
You may have complications of:

- Cavernous Sinus Thrombosis
- Frontal Lobe Abscess
- Hemiparesis due to thrombosis in jugular vein

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AUTOBIOGRAPHY OF  
MUCORMYCOSIS

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## **MUCORMYCOSIS and COVID-19**

**Low on community due to COVID-19 and somewhere you got symptoms too. Not easy for you to handle both since I lower your immunity to the utmost.**

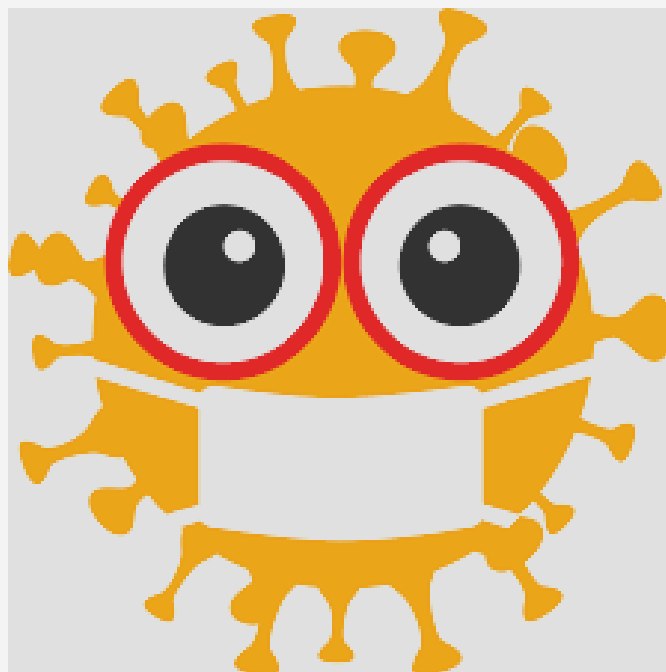
### **Diabetes + COVID**

**if you both occur together , we will make best friends in the same body.**

**Are you taking steroids to fight COVID, thanks for giving me fuel so that I can fire.**

**Didn't you hear cases of losing vision of COVID**

**infected patients and doctors trying best to remove eye to stop spreading of infection to brain. I turned many blind so will continue if you don't take care of your immunity.**



- **Eat healthy nutritious food to build up immunity.**
- **Keep check on your sugar levels and respiratory status.**
- **Wash your hands properly and wear masks and most importantly**
- **Keep a check on your immunity,**

**so that I am not invited at dinner to your home.**



**AUTOBIOGRAPHY OF  
MUCORMYCOSIS**



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