



# SERUM TIMES

Monthly | Volume X | Issue XII | December 2025

SERUM MEDICAL BULLETIN

## From the desk of the Editor-in-Chief

Dear Readers/Doctors,

Hope you and your families are well. We are waiting to welcome 2026. A large number of people, particularly the old and children, suffer from cold and many other diseases. We would like to remind you about how to keep you safe in the winter season. First, colds and flu are known to be high-season sicknesses. In winter, the spread of the virus increases due to cold temperatures and low humidity. Runny nose, sneezing, sore throat and similar problems from a cold are common. Flu patients experience body aches, fever and chills. Keep your hands clean, and avoid touching people who have signs of flu. In the home, clean all surfaces which are likely to have germs.



Secondly, there is seasonal affective disorder (SAD), which is related to mental depression due to low sunlight in the winter. One can enjoy sunlight in the day and do regular exercise. Thirdly, joint pain due to lower moisture in the air causes joints to get stiff and sore. Then heat-related treatment can reduce muscle tension and increase blood flow. Also, do some exercises to get relief.

Fourthly, the possibility of asthma increases in winter. Try to keep the house warm and moist for asthma patients. Fifthly, eye irritation is a common problem for many in winter. So, try to protect your eyes from the wind and cold. One can use artificial tears to reduce inflammation. Sixthly, in winter, there is a big chance of gaining weight, and obesity may arise for some due to less activity, higher festive season eating that increases calorie intake. Seventhly, the possibility of forming kidney stones increases due to a rise in the concentration of minerals and ions in winter. So, we hope that you will be cautious about your health in the winter in a special manner.

In this issue, we are going to discuss two special health matters. Story 1 discusses an eye-related health issue, Astigmatism. It is a common type of refractive error, i.e., the cornea or lens of the eye is more curved than it should be. This altered eye shape makes your vision blurry. But in most cases, it can be treated with corrective lenses like eyeglasses or contact lenses or in other ways.

Story 2 discusses recent medical research done by a group of scientists at the Netherlands Epidemiology of Obesity a few weeks ago. The scientists have been able to discover to correlation between different types of depression with an increased risk of different cardio-metabolic diseases.

So, go through these stories. Again, wishing you happy days.

Sanjib Acharya

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## Astigmatism - a defect in the cornea that can be treated

Story 1

Astigmatism is a defect in the curvature of the cornea or in the shape of the eye lens. The cornea is a dome-like transparent structure that covers the iris and the pupil. The cornea helps to focus light clearly onto the retina at the back of the eye. But if the cornea or lens is not smooth or does not have a regular curve, the rays of light do not refract or bend correctly. This causes a refraction problem. In an astigmatic eye, images get focused either in front of or behind the retina. This means that the images appear blurred.

### Causes of astigmatism

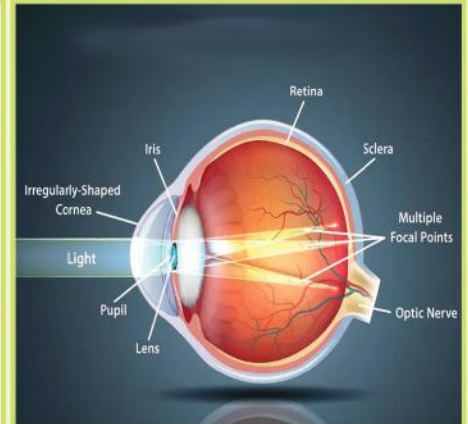
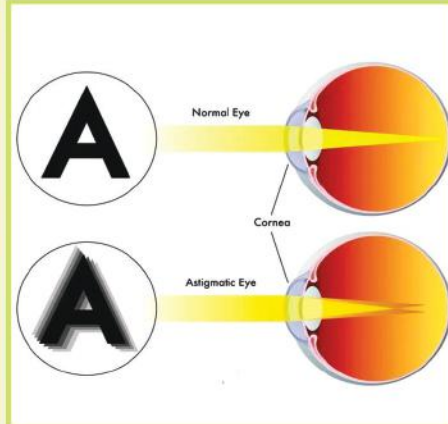
The risk of getting astigmatism is mainly inherited, passed from parents. But in many cases, it may occur from some eye disease or eye injury. After some eye surgery, it may also occur. People may have astigmatism along with other refractive errors like near-sightedness, which is also called myopia, or farsightedness or hyperopia. So, in astigmatism, images focus in front of and beyond the retina. Hence, close and distant objects both appear blurry.

### Symptoms of astigmatism

The symptoms are many. 1) Blurry vision or areas of distorted vision, 2) eyestrain, 3) headache, 4) squinting to try to see clearly, and 5) eye discomfort. But one has to know that these symptoms do not always mean that one has astigmatism of any kind. On the other hand, children in many cases do not realize whether or not they have blurry vision. This is why doctors advise compulsory eye screenings of children.

### Method of diagnosis of astigmatism

It is done during a comprehensive eye examination. There is some testing. One, is a reading test of letters on an eye chart. This helps to diagnose visual acuity or sharpness at a distance. Two, is a phoropter. Here, one has to look



through a large binocular-like device. By this test, it can be known which letters one can see better. Based on the reply, doctors suggest how to attain the clearest vision in due course. Three has been an auto-refractor. This helps one to measure astigmatism or other refractive errors. Four is a Keratometer that measures the curve of the cornea.

### Treatment

First, glasses or contact lenses are prescribed that work by refocusing light on the retina in the back of the eye so that one can see clearly. Second is refractive surgery. Here a laser reshapes the corneas to adjust light to travel through it.



## Some types of depression correlate with risk of cardio-metabolic diseases - A recent study observes

Story 2

It is already known that depression can affect a person's health in different ways, including increasing the risk of heart disease. Even if it may increase the risk of a weak immune system, chronic pain, asthma, and even some types of cancers. But a recent study, done by scientists of the Netherlands Epidemiology of Obesity (NEO), has been able to pinpoint an observation. It has been found, as reported in Medical News Today (14 October 2025), that different types of depression are correlated with an increased risk of different cardio-metabolic diseases. Not only that the research mention that type 2 diabetes and cardiovascular diseases like heart attack or stroke, can happen from depression. So, it is a very notable finding in the health sciences.

How prevalent is depression in the world? According to the World Health Organization, about 332 million people around the world have been suffering from depression. The Organization has also been known to have predicted that depression will be the leading cause of disability by 2030. This is due to its impact going beyond mental health. It can lead to different physical illnesses.

### Research methodology

The researchers examined more than 5,700 adults enrolled in the NEO Study. All participants were asked to complete a depression related questionnaire. They were placed under two categories. One, Atypical or energy-related related that included fatigue, increased sleep, and appetite or weight gain. Two, Melancholic-related symptoms that were related to decreased appetite, weight loss, or having a bad mood in the morning.

### The result found in the study



The research team found that participants with atypical/energy-related symptoms of depression were 2.7 times more likely to develop type 2 diabetes than those without signs of depression. The team leader of the study, Yuri Milaneschi, reportedly said that depression had many faces and presented with very different symptoms across individuals. People marked by fatigue, increased appetite, and more sleep had nearly a threefold higher risk of developing diabetes over the next seven years.

On the other hand, they also saw that participants who had shown melancholic symptoms of depression had about 1.5 times greater chance of developing cardiovascular disease than individuals without depressive symptoms. Milaneschi also said that people with melancholic symptoms had a higher risk of developing cardiovascular disease but not diabetes.

### The conclusion

The study reveals that different forms of depression are linked to specific physical health risks.





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**CASE PRESENTATION by Dr. Sanjeeb Mondal, MD (Path)**  
**Consultant Histopathologist**

**CASE PROFILE:** 38-year-old male from West Bengal presented with a right Solitary Thyroid Nodule (USG-3x2cm. Nodule, TIRAD-4)

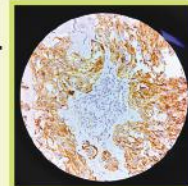
**IHC Diagnosis (Immunohistochemistry):** Medullary Carcinoma of Thyroid.

**H/P – Diagnosis:** 1) Medullary Carcinoma of Thyroid. D/D 2) Papillary Carcinoma of Thyroid.

**IHC Marker Study:** 6 markers were studied. CEA- Diffuse & strongly positive. Chromogranin - Diffuse and strongly positive.

**Calcitonin – Focal Positive. AE1/3 - Negative. BRAF- Negative. PAX8- Negative**

**Discussion:** Judicious use of immunomarkers can help to reach a precise diagnosis in case of a difficult-to-dissect Histopathological presentation.



## CSR Activities & Events of SERUM throughout November, 2025



Nov 5: Smt. Nivedita Acharya at the Stree – The Next Nandini, held at Swabhumi Rang Manch as the Guest of Honour.



Nov 6: General Meeting of Serum Thalassaemia Prevention Federation was successfully held at the SERUM Auditorium for December 7, 2025 rally



Nov 16: Sri Sanjib Acharya attended the Free Wellness Camp



Nov 23: Sri Sanjib Acharya at Clothes and Food distribution programme



Nov 23: Invited various Clubs for December 7, 2025 rally & Blood Donation Camp

Nov 22: AGM 2025 of SERUM AnalysisCentre, Nadia & Part Murshidabad was successfully held at Hotel Haveli



Nov 22: AGM 2025 of SERUM AnalysisCentre, Burdwan & Birbhum was successfully held at Hotel Neelam



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