

SPECIAL ISSUE

# INSIGHT

Issue 16  
December 2010

An Official Journal Of Kerala Govt. Optometrists' Association

Reg. No. 285



## എഡിറ്റോറിയൽ

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കേരള ഗവൺമന്റ് ഒപ്റ്റോമെട്രിസ്റ്റ് അസോസിയേഷന്റെ അഭിമാനമായ ഇൻസൈറ്റിന്റെ ഒരു സ്പെഷ്യൽ എഡിഷൻ നിങ്ങൾക്ക് മുന്നിൽ സമർപ്പിക്കട്ടെ. വിജ്ഞാനപ്രദമായ കാര്യങ്ങൾ അംഗങ്ങളുടെ മുന്നിൽ എത്തിക്കാനുള്ള ശ്രമങ്ങൾക്ക് സംഘടന വളരെയധികം പ്രാധാന്യം നൽകിപ്പോരുന്നതിന്റെ ഭാഗമായാണ് ഇൻസൈറ്റ് എന്ന ജേർണ്ണൽ പിറവിയെടുക്കുന്നത്. ഇന്ന് ഈ ജേർണ്ണലിന്റെ ഒരു സ്പെഷ്യൽ എഡിഷൻ അക്ഷരലോകത്തെ ഒരു അതികായൻ പ്രകാശനം ചെയ്യാനുള്ള ഭാഗ്യവും ലഭിച്ചിരിക്കുകയാണ്. ഈ ലക്കത്തിൽ കേരളത്തിലെ ഒപ്റ്റോമെട്രിസ്റ്റുകൾ സംസ്ഥാന കമ്മിറ്റിയോട് നിരന്തരം ആവശ്യപ്പെട്ടിരുന്ന, ഡിപ്പാർട്ട്മന്റ് ഇതുവരെ പ്രസിദ്ധീകരിച്ച മുഴുവൻ സീനിയോരിറ്റി ലിസ്റ്റുകളും ഉൾപ്പെടുത്താൻ സാധിച്ചിട്ടുണ്ട്. ഇത് എല്ലാ ഒപ്റ്റോമെട്രിസ്റ്റുകൾക്കും വളരെയധികം ഉപകാരപ്രദമാകുമെന്ന് വിശ്വസിക്കുന്നു.

Printed at  
**PageMakers**  
**Kuttippuram**

അരുൺ ആർ ജെ  
എഡിറ്റർ

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PRESIDENT'S VOICE

സുഹൃത്തുക്കളെ,

കേരളാ ഗവൺമന്റ് ഒപ്റ്റോമെട്രിസ്റ്റ് അസോസിയേഷൻ ഒരു വയസ്സു കൂടി പിന്നിടുകയാണ്. അസോസിയേഷനെ സംബന്ധിച്ചിടത്തോളം വളരെ പ്രധാനപ്പെട്ട പല വിഷയങ്ങളും അഭിമുഖീകരിച്ച ഒരു വർഷമാണ് കടന്ന് പോയത്. എല്ലാ വിഷയങ്ങളിലും അസോസിയേഷന് വളരെ ശക്തമായി തന്നെ ഇടപെടാൻ കഴിഞ്ഞതിൽ ചാരിതാർത്ഥ്യമുണ്ട്.

ഒന്നാമതായി ബൈഹർക്കേഷൻ നടപടികളിൽ എല്ലാ കേഡറിനും പ്രാധാന്യം നൽകണമെന്ന സർക്കാർ നയത്തെ അട്ടിമറിക്കാനുള്ള നീക്കമുണ്ടായപ്പോൾ സംഘടനയുടെ ശക്തമായ ഇടപെടലുകൾ കൊണ്ട് ഒപ്റ്റോമെട്രിസ്റ്റുകളുടെ പൊതു താല്പര്യമായ 2:2:1 എന്ന അനുപാതത്തിൽ തന്നെ നടപടികൾ പൂർത്തിയാക്കാൻ കഴിഞ്ഞു.

പാരാമെഡിക്കൽ ജീവനക്കാരുടെ മാത്രം ഒരു തരം പകപോക്കൽ രീതിയിൽ അധികാരികൾ പുറപ്പെടുവിച്ച ഉത്തരവിനെതിരെ ഇതര പാരാമെഡിക്കൽ സംഘടകളോട് കൈകോർത്ത് ശക്തമായി പ്രതിഷേധിക്കുവാൻ കേരളത്തിലെ ഒപ്റ്റോമെട്രിസ്റ്റുകൾ ഒറ്റക്കെട്ടായി മുന്നോട്ട് വന്നതിൽ സംഘടന അഭിമാനിക്കുന്നു. ഡ്യൂട്ടി ടൈമിന്റെ കാര്യത്തിലായാലും അവധി വ്യവസ്ഥകളുടെ കാര്യത്തിലായാലും ആരോഗ്യ വകുപ്പിലെ ജീവനക്കാരെ അശാസ്ത്രീയമായ രീതിയിൽ പല തട്ടുകളാക്കി ജീവനക്കാരുടെ ഇടയിൽ അസുസ്ഥതകളുണ്ടാക്കിയ ഉത്തരവിനെതിരെ സംഘടനയുടെ പ്രവർത്തനങ്ങൾ കൂടുതൽ ശക്തമാക്കേണ്ടതുണ്ട്.

90ം ശമ്പള പരിഷ്കരണ കമ്മീഷന്റെ മുൻപാകെ അസോസിയേഷന്റെ ജനറൽ സെക്രട്ടറി, ജോയിന്റ് സെക്രട്ടറി എന്നിവർക്കൊപ്പം ഹാജരായി കേരളത്തിലെ ഒപ്റ്റോമെട്രിസ്റ്റുകളുടെ ആവശ്യങ്ങൾ കാര്യകാരണങ്ങൾ സഹിതം വളരെ വ്യക്തമായി കമ്മീഷനെ ബോധ്യപ്പെടുത്താൻ കഴിഞ്ഞെന്നുള്ള വസ്തുത സന്തോഷപൂർവ്വം നിങ്ങളെ അറിയിക്കട്ടെ. നമുക്ക് വളരെയധികം ഗുണം ചെയ്യുന്ന തരത്തിൽ നമ്മൾ ആവശ്യപ്പെട്ടിട്ടുള്ള 1:1:1 റേഷ്യോ, ഒപ്റ്റോമെട്രി ഓഫീസർ ഉൾപ്പെടെയുള്ള ഡേസിഗ്നേഷൻ മാറ്റം, അസിസ്റ്റന്റ് ഡയറക്ടർ ഇൻ ഒപ്റ്റോമെട്രി എന്ന തസ്തിക, കൂടാതെ കഴിഞ്ഞ ശമ്പള പരിഷ്കരണത്തിൽ വന്നിട്ടുള്ള അപാകതകൾ പരിഹരിച്ചുകൊണ്ടുള്ള ശമ്പള വർദ്ധനവ് തുടങ്ങിയവയൊക്കെ ശുപാർശ ചെയ്യപ്പെടുമെന്നുള്ള വിശ്വാസത്തിലാണ് സംസ്ഥാന കമ്മിറ്റി.

ബി എസ്സ് സി ഒപ്റ്റോമെട്രി കോഴ്സിലേക്കുള്ള സർവ്വീസ് ക്വാട്ടയിൽ ഡെപ്യൂട്ടേഷൻ വ്യവസ്ഥയിൽ അഡ്മിഷൻ നൽകണമെന്ന നമ്മുടെ ആവശ്യം സർക്കാരിനോട് വളരെ ശക്തമായി ആവശ്യപ്പെട്ടിട്ടുണ്ട്. അംഗങ്ങളുടെ ആവശ്യപ്രകാരം പോസ്റ്റുകൾ കണ്ടെത്തി സീനിയർമാരെ പ്രധാന ആശുപത്രികളിൽ നിയമിച്ച് നമ്മുടെ കാറ്റഗറിയുടെ മുഖഛായ മാറ്റിയെടുക്കാനുള്ള സംസ്ഥാന കമ്മിറ്റിയുടെ ശ്രമങ്ങൾക്ക് പച്ചക്കൊടി കാണിച്ച് വകുപ്പ് തലത്തിൽ നടപടികൾ തുടങ്ങിക്കഴിഞ്ഞു. കൂടാതെ മുടങ്ങിക്കിടന്ന പ്രോമോഷൻ നടപടികളും ഏകദേശം പൂർത്തിയായി വരുന്നു.

ഭൂരിപക്ഷം അംഗങ്ങളുടേയും കൈയ്യിൽ ഇല്ലാതിരുന്ന, ഇതുവരെ ഡിപ്പാർട്ട്മന്റ് പ്രസിദ്ധീകരിച്ച സീനിയോറിറ്റി ലിസ്റ്റുകൾ മുഴുവൻ ഈ ലക്കം ഇൻസൈറ്റിലൂടെ അംഗങ്ങളുടെ കൈയ്യിൽ എത്തിക്കുകയാണ്. സംഘടനാപരമായി ഇന്ന് കേരളത്തിലെ ഒപ്റ്റോമെട്രിസ്റ്റുകളുടെ ഇടയിൽ യാതൊരു അഭിപ്രായ വ്യത്യാസങ്ങളും നിലവിലില്ലാത്ത സാഹചര്യത്തിൽ കേരളത്തിലെ മുഴുവൻ ഒപ്റ്റോമെട്രിസ്റ്റുകളേയും പങ്കെടുപ്പിച്ചുകൊണ്ടുള്ള 190ം സംസ്ഥാന സമ്മേളനത്തിൽ ഈ ഇൻസൈറ്റ് നിങ്ങളുടെ കൈകളിൽ എത്തിക്കാൻ കഴിയുമെന്ന് പ്രതീക്ഷിക്കുന്നു. കഴിഞ്ഞ ഒരു വർഷക്കാലം കേരളത്തിലെ ഒപ്റ്റോമെട്രിസ്റ്റുകൾക്ക് വേണ്ടി സംസ്ഥാനകമ്മിറ്റിയുടെ മുന്നിൽ നിന്ന് പ്രവർത്തിക്കാൻ കഴിഞ്ഞതിൽ അഭിമാനം കൊള്ളുന്നു. അതിന് അവസരം ഉണ്ടാക്കിത്തന്ന ശക്തമായ പിന്തുണ തന്ന നിങ്ങളോരോരുത്തരോടുമുള്ള നന്ദി അറിയിക്കുന്നതോടൊപ്പം എന്നും ഒപ്റ്റോമെട്രിസ്റ്റുകളുടെ ന്യായമായ ആവശ്യങ്ങൾക്ക് വേണ്ടി ശബ്ദമുയർത്താൻ ഞാൻ നിങ്ങളോടൊപ്പം ഉണ്ടാകുമെന്ന് അറിയിക്കട്ടെ.

അഭിവാദനങ്ങളോടെ,

ബി ആർ സുധീഷ്  
പ്രസിഡന്റ്

<b>FROM SECRETARY'S DESK</b>
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Dear colleagues,

We are now at the auspicious occasion of our 19th State Conference at Ernakulam. First of all, let me thank each one of the GOAK members for giving me support for executing my duties during the second term of my tenure.

After long troubles and hurdles, the bifurcation process has completed and the lean of 18 Ophthalmic Assistants is shifted to Medical Education Department. As per our request the rest 330 posts in Health Services Department is reassigned as per our promotion ratio 2:2:1. The promotion process will be completed soon and the assigning of posts of senior grade in major hospitals is under prime consideration of the department.

As all of you know, the order of duty time change of paramedical employees is not yet clearly rectified. We are still trying, under the banner of Arogya Vakuppu Samyuktha Samara Samithi to convince the authorities about its drawbacks and hope to have a sensible order, which will not hurt the rights of the employees.

The disability camps conducted by Social Sevice Security Mission had caused uneasiness among our members through out the state, both on their attitude towards us and in the discrimination in giving remuneration. This was brought to the notice of their higher authorities.

Even though BSc Optometry course was started at Regional Institute of Ophthalmology, Thiruvananthapuram and Medical College, Kozhikode, the streamlining of the course is not yet comfortable. We are trying to get it done as early as possible. The issue regarding the move to shift the promotion posts of Ophthalmic Assistants and Orthoptic Technicians in DME to Tutor in BSC Optometry, came into the notice of GOAK recently and we have discussed the matter with the authorities. We hope that new posts will be sanctioned for Tutor in BSc Optometry so that promotion posts will not be hurst in any way.

We are expecting a better pay as well as other demands like revision of ratio promotion to 1:1:1 etc will be granted by the 9th Pay Revision committee to our category.

This years State Conference will be a platform for cease fire of the cold war existing in the category for the past years and I personally hope for a better, eventfull and charming days in the near future.

Let me conclude with the words "Life itself can't give you Pleasure and Peace unless you really want them. Life just gives you Time and Space, it is upto you, how you fill it".

**Biju K R**  
General Secretary

# Refraction Pearls

This article was written by N C Singhal, Consultant Ophthalmologist, New Delhi on Ophthalmology Today. Republished for academic interest.

## Introduction

In ophthalmology, the most difficult part is to prescribe accurate and comfortable pair of glasses. Such a prescription may not be within the reach of many ophthalmologists, both seniors and juniors. Retinoscopy is an art to be learnt under guidance. However in this write up, I am altogether dispensing with retinoscopy and the subjective method will enable to determine accurately and quickly, the number of glasses with accurate safeguard of over-correction — the bane of spectacles intolerance. No dilatation of pupil is required as it is a long process which many patients, who are conscious of the advanced technology, resent in the fast moving world of today.

Patients visiting an oculist for refraction can be divided into following three categories.

**Category 1:** A patient is already wearing glasses and he wants to get a check up either as a routine or he finds his glasses inadequate.

**Category 2:** Patient has headache or eye strain and has no vision problem and either comes directly to an oculist or he is referred by a physician.

**Category 3:** Patient has dimness of vision.

All the above three categories need very detailed write up which will be very lengthy, hence I have selected only the last category along with causes of spectacle-intolerance.

## Dimness of Vision (Category 3)

The technique described here is based on the author's long clinical practice. The author divides the routine into two sections,

**Monocular testing:** There are four steps in monocular testing:

- Determination of unaided vision.
- Estimation of preliminary sphere which gives best visual acuity prior to any astigmatism.
- Precise finding of astigmatism if any.
- Precise finding of final sphere. This sphere with any astigmatism

completes monocular testing.

**Binocular testing:** Again there are four steps in binocular testing.

- Balancing astigmatism and discovering any modification.
- Balancing the spheres.
- To apply confirmation tests in young patients in order to check whether any further binocular relaxation of accommodation is possible.
- To assess muscular anomalies which might suggest any modification of correcting spheres.

## Monocular Testing

### Step 1: Unaided vision

While testing vision of an eye, it is important that the patient should not close his eye either by squeezing or by pressure of hand or by putting his hollow palm. In the former two positions, cornea of the eye get distorted and takes time to return to its normal position and vision of this eye if taken before it returns to its normal position will be less than the real vision. Such a thing happens if one is in a hurry or he is not aware of such a temporary distortion. In the last position, patient sees through the chinks between fingers, hence tell the patient to keep his eyes open and then test either by putting a frame or a cardboard in front of one eye. All these are simple matters but the author has seen being done not only by optometrists but even by eye specialists. Having determined vision of each eye, patients can be divided into two groups:

- a) Those who can read from 6/60 to 6/6.
- b) Those who cannot read any line.

Now put a pinhole (PH) in the frame and let him read through the PH and if he is able to read more, it means that he needs refraction. If no improvement with PH, it means, he has some disease, which must be found out and treated. There is no need of doing refraction in such cases. In second group, because of high number, occasionally patient may not be able to read through PH at six metres. So bring him closer to the vision chart, say at 3 meters distance and let him read now. If he is able to read now, ask him to see the duochrome FRIEND panel and to say which colour, red or green, is more distinct without making any attempt to decipher letters. If he says that red is more distinct, he is myopic and if he says that green is more distinct, he is hypermetropic.

There are certain letters on vision charts which

have zigzag lines like M, N, X, K, W and Z. These are called confusing letters. If a patient in a certain line of vision chart correctly reads straight letters but makes mistakes in confusing letters, it implies astigmatism. Hence finding out unaided vision gives valuable subjective indications concerning the extent and type of refractive error.

### Step 2: Determination of preliminary sphere

If patient is myopic as found out in step 1, put -0.50 sph and if he belongs to group (b), put higher number and go on increasing the sphere as long as the vision improves. Note the final number which is the preliminary sphere. If he is hypermetropic, put plus sphere.

### Step 3: Determination of astigmatism

Put +0.5 cylinder at 180 axis and ask patient if vision improves. If no, rotate the cylinder slightly towards 15 or 165 degrees and keep on rotating asking the patient to stop if at any position vision improves. If no improvement, it means no plus astigmatism. If vision improves, say at 45 deg, move the cylinder either way to find out at which axis vision is clear. That will be the exact axis, say it is 30 deg. Having determined exact axis, increase or decrease the cylinder till improvement is final. If plus cylinder does not improve the vision, use minus cylinder in the same way. To make sure that the patient needs cylinder, remove the cylinder and if he says that vision is diminished, put the same cylinder at the determined axis and if vision becomes clear, it confirms a cylinder at the determined axis. Repeat the same procedure in the other eye.

Whenever cylinder is accepted at some axis, it is wise to compare the vision with a sphere of half the value of cylinder. For example, if cylinder accepted is +1, remove it and put +0.5 sphere and compare the vision between the two. It will be easier to compare, if patient concentrates on one letter only. If sphere is better, their give sphere i.e. add it to preliminary sphere or if no sphere was accepted, give only a cylinder. This procedure is useful if on one side there is high cylinder at an oblique axis, causing distortion of objects. In such a case, reduce the cylinder of certain magnitude and increase the sphere of half the power of cylinder reduced.

Another method of finding out the astigmatism is by use of cross cylinder. It will be too lengthy to describe.

**Step 4: Determination of final sphere** Having elicited the preliminary sphere together with astigmatism, increase or decrease the sphere to find out which gives most clear vision.

Although this completes unocular testing in each eye, it is possible that absolute relaxation of accommodation may not have been attained in some young patients. This would be eliminated in binocular testing. Before proceeding, to do binocular testing *see* whether axes in two eyes is 180 in sum total which means symmetrical astigmatism, if not, once again verify each axis. If sum total is still not 180, accept it, whatever it is and proceed to the binocular test.

Sometimes at the final stage of correction, an oculist, while changing small spheres or cylindrical lenses and asking the patient to tell the difference between two lenses, is unable to differentiate between the two lenses. In that case, tell the patient to concentrate on one letter of the last line, read clearly and ask whether that particular letter is clear with which lens. The letter to be chosen must have straight lines like H, T, L. Do not select confusing letters like Z, M, B.

Similarly, if the patient needs 0.5 cyl at 90, it is necessary to find out whether vision is better at 75 or 105 and shifting the cyl either- side of 90. Patient may not be able to differentiate between three position; In such a case remove 0.5 cyl. and put 1 D cyl telling the patient that his vision has been purposely made blurred. Now put this cyl at different positions when the patient will be able to tell at what position the vision is comparatively better, although it is blurred at all positions. That will be the correct axis. In the rare event of the patient still being unable to distinguish, use 1.5 cyl.

### **Binocular Tests**

#### **Step 5: Balancing astigmatism.**

We assume that vision in each eye with monocular testing is 6/6 or so subject to variations due to media irregularities and abnormalities of one kind or other. Usually eyes are able to tolerate difference of cyl of 1.5 and if the difference is more, patient may not be able to tolerate such astigmatism. Ask the patient to stand up and walk around and to look at the floor to see if there is distortion of the floor. If no distortion, then he is able to tolerate the difference. If there is distortion of floor and also if a book is held before him, instead of appearing rectangular, it appears rhomboid in shape, some adjustment has to be done.

Astigmatism may be of various types. If in both eyes axes are at 180 or 90, chances of distortion is much less. If axes are other than 180 and 90, but sum total of two axes is 180, eg 60 and 120 or 15 and 165, chances of distortion is more. And if sum total is other than 180, such as 75 in each eye (150) or 180 and 15 (195), chances of distortion are much more. So equalize the two cylinders or reduce the strength of the cylinder if present in one eye. If there is astigmatism, no matter how much it is, always ask the patient to walk to discover distortion.

#### **Step 6: Balancing spheres.**

Having finalised the power and axis of astigmatism, attention is directed to the confirmation of spherical powers which might need modification under binocular testing. In such a test, there is further relaxation of accommodation compared to that exerted under unocular fixation.

If there is difference of more than 2.5 in both spheres and suppose the vision is 6/6, let the patient look at 6/9 line. Now reduce the higher sphere by 0.5 and ask him whether there is difference in the clarity of 6/9 line. If he says that vision is clearer now, it is understood that he cannot tolerate the full correction, so reduce the higher, sphere by 0.50. Again repeat the same process by reducing same sphere by 0.5 and continue to do so till the patient find no difference between two strengths of spheres. If vision in both eyes is 6/9 and 6/6, then select 6/12 line i.e. one line higher than obtained by unocular correction.

#### **Step 7: Confirmation test for binocular relaxation.**

Spherical correction having been final it then becomes necessary to check for remnant of accommodation spasm which is likely to be present in young patient under the age of 21 years. To achieve this we proceed as follows.

Patient is directed to look at the lowest line which he read and then put +0.50 sphere in each eye. This addition may be rejected by the patient. In that case the correction is allright. If no blurring occurs, then add another 0.25 sphere on each side. If this is accepted, it is better not to add it because fullest correction may sometimes not tolerated by a hypermetrope. It is only infrequently that this test leads to any major modification of the correction already deduced from previous test but it forms a useful and rapid confirmation of the findings.

#### **Step 8: Assessing muscular anomalies.**

This step is of considerable importance in clinical prescribing. Muscular imbalances and vergence defects occasionally produce need of modification of the correction already determined. If patient has exophoria and needs minus glasses, give him full correction but if he needs plus glasses, he should be undercorrected and vice-versa in esophoria. Finally let the patient look at duochrome FRIEND test and a myopic patient should say that red colour is more distinct and in hypermetropia, he should see green colour distinctly. In myopia, another way to determine overcorrection is to draw the frame slightly forwards and if patient says that vision is blurred, the correction is correct and if he says that vision is better by drawing the frame forwards, reduce sphere by -0.25 sphere. Another pearl from practical point is, suppose patient needs +4 sphere with +2 cyl at 30. Now we must see if +3.5 with +2.5 cyl is better. Instead of removing the lenses and replacing the other pair of lenses, one can put -0.50 cyl at 120. This will be equivalent to +3.5 sph with 2.5 cyl at 30 and patient is asked which is better.

After this put +0.50 cyl at 120 over previously corrected lenses. This will be equivalent to +4.5 sph with +1.5 cyl at 30.

This is the end of subjective testing or refraction without any retinoscopy and it is absolutely accurate. I follow this procedure in all cases because I have defective vision due to which I am unable to do retinoscopy. Hence I developed this technique. For retinoscopy I have to dilate pupil which I resent very much. Having prescribed glasses, patient may come back complaining that he feels eye strain and headache with glasses. It means SPECTACLE INTOLERANCE. To deal with this, we proceed as follows.

First determine the number of glasses dispensed and whether it coincides with the prescribed lenses. If yes, spectacle intolerance can be due to following reasons.

#### **Frame of spectacles**

Correct size off frame is an essential part of accurate dispensing. IPD must be found out which should correspond with IPD of frame. If a patient is already wearing glasses, and wants to buy a new frame, the optician must select new frame of same size. For example, if the old frame of patient was, say of 52/22 and the new frame is of 50/2 or 54/22, he may have eye

strain because now centering off his eyes is deviated in the new lenses inward or outward producing prismatic effect which patient has to neutralize by his own efforts causing eye strain. The change in size of frame is more felt in higher numbers.

In cases of children and squint, IPD is measured from inner corner of one eye to the outer corner of other eye.

#### Large frame

Eye strain can occur due to large frame which is responsible for peripheral magnification. Hence optician should advise a patient not to buy large frame more so in high numbers.

#### Anisometropia

It may so happen that having balanced the spheres, distant vision is comfortable because of proper centering. But on lowering the gaze in near vision, some degree of vertical prismatic effect is induced which may even cause double vision at near. For example, consider a prescription of RE minus 3.00 and left eye minus 7.00 which has been tolerated by the patient for distant vision. To this add +2 for near vision. When a patient lowers his vision for near work, usual decentration is about 1 cm. So in right eye a prism of 1 dioptre and in left eye 5 dioptre will be induced base down, difference of 4 prism is expected to cause eye strain. The prismatic dioptres is equal to decentration in cm multiplied by power of lens in the meridian of decentration. In the example, by adding-, +2 to right eye leaves -1 and in left eye leaves -5. Hence in such cases it is better to prescribe separate glasses for near and distant. But if a patient insists on bifocal, let him have it but warn him before hand.

**Large difference from the old number** would mean much finer details of seen objects in the mental picture and may rarely cause eye

strain.

#### Heterophoria

If a patient has latent muscular imbalance, certain principles are to be observed. If there is exophoria and minus glasses are prescribed, give him full correction and if plus lenses are given, give him under correction and vice versa in esophoria.

#### Aniseikonia

It means considerable difference in the size of retinal images in two eyes. That occurs in anisometropia or antimetropia. Former means difference of more than 2.5 between the two spheres and latter means that one eye is myopic and other eye is hypermetropic. In such cases eye strain can occur if there is difference in the inside base curves of two lenses.

Example: 1

RE +2.00 D and LE -2.00 D (Antimetropia)

Example: 2

.RE +5.00 D and LE +2.00 D (Anisometropia)

Now in right eye use +8 base curve outer and -6 inner basecurve. In the left eye, use +4 base outer and -6 base inside.

Example 2: RE use +9 base outer and -4 base inside.

In LE use +6 base outer and -4 base inside. Any deviation in the inside base curve on both sides will produce aniseikonia and may cause eye strain. Hence an oculist must have a Geneva lens measure watch to find out base curve of the inside of a lens.

#### Pantoscopic tilt and centre bend

Former means horizontal tilt, up or down of the frame and centre bend means back or front bend of frame. The new frame with

centre bend or pantoscopic tilt as compared to old frame may cause discomfort, this is specially so in high cylinders, presbyopics and aphakics.

Above is a brief account of various causes of spectacle intolerance and an optician Must take care of these various factors. Some of them may not be in the knowledge of all opticians and ophthalmologists.

The entire write up is for arriving at an accurate determination of prescription and making the patients comfortable. Retinoscopy has been entirely dispensed with. With practice, in a very short time, the whole process can be completed.

While I was typing out this matter, a patient aged 67 came testing right for testing of his right eye because left eye was P.Bulbi. His naked eye vision was 6/36. I asked him to see green and red colour and tell which colour was more distinct. He said green, though I was expecting him to say red thinking that due to lenticular opacities, he may be myopic. So first I put -0.50 sph., he said that 6/36 line is blurred. Then I put +0.50 sphere. He read 6/24. Addition of another +0.50 sill made him read up to 6 12 p. By putting +1.5 sph, vision became blurred. So I removed +1.0 sph and put +0.50 cyl at 180. Vision was blurred. I rotated the cyl and at 90 he read clear 6/12 and no more because of lenticular opacities. I put +2.5 sph for near. He read J4 and by putting +3.5 sph read J 1. He was in the habit of putting reading mater close to eyes, i.e. why needed +3.5 for near. The whole process took me only 5 minutes.

I hope readers of this article will try to practice this alternative technique to determine the number of glasses.

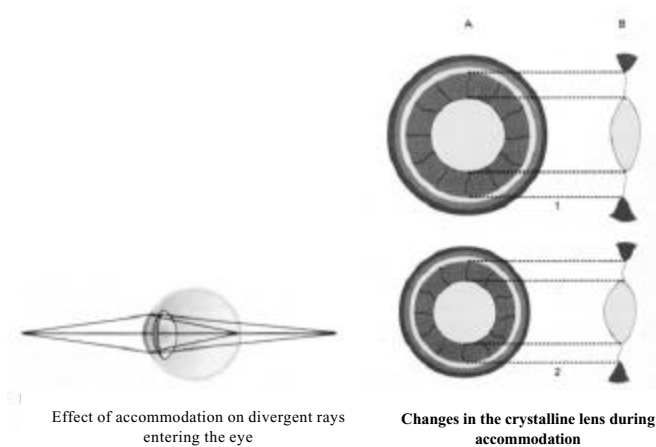
## OptoTips

- \* Dynamic light scattering(DLS) is a new technique by which cataract can be detected using LASER, even before physically appearing on the lens
- \* Orthokeratology is a method of correcting myopia by wearing a very flat contact lens with the intention of flattening the cornea.
- \* Lutein is a potent antioxidant, found in fruits and green vegetables and one of the dominant pigments in the macula of the healthy retina.

# Accommodation

REMYA THOMAS  
CHC, Angamaly

**Definition.** As we know that in an emmetropic eye, parallel rays of light coming from infinity are brought to focus on the retina, with accommodation being at rest. However, our eyes have been provided with a unique mechanism by which we can even focus the diverging rays coming from a near object on the retina in a bid to see clearly. This mechanism is called accommodation. In it there occurs increase in the power of crystalline lens due to increase in the curvature of its surfaces



At rest the radius of curvature of the anterior surface of the lens is 10 mm and that of posterior surface is 6 mm (Fig. 3.33A). In accommodation, the curvature of the posterior surface remains almost the same, but the anterior surface changes, so that in strong accommodation its radius of curvature becomes 6 mm (Fig. 3.33B).

## Mechanism of accommodation

According to von Helmholtz capsular theory in humans the process of accommodation is achieved by a change in the shape of lens as below.

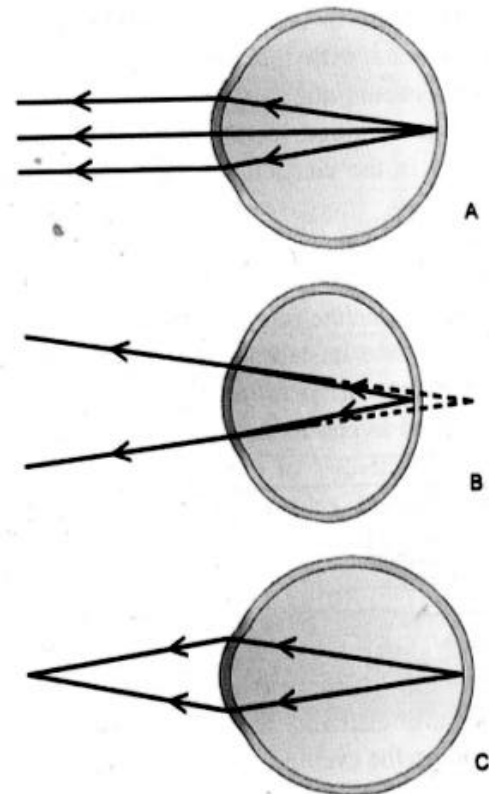
- When the eye is at rest (unaccommodated), the ciliary ring is large and keeps the zonules tense. Because of zonular tension the lens is kept compressed (flat) by the capsule (Fig. 3.33A).
- Contraction of the ciliary muscle causes the ciliary ring to shorten and thus releases zonular tension on the lens capsule. This allows the elastic capsule to act unrestrained to deform the lens substance. The lens then alters its shape to become more convex or conoidal (to be more precise) (Fig. 3.33B). The lens assumes conoidal shape due to configuration of the anterior lens capsule which is thinner at the center and thicker at the periphery

## Far point and near point

The nearest point at which small objects can be seen clearly is called near point or punctum proximum and the distant (farthest) point is called far point or punctum remotum.

## Far point and near point of the eye vary with the static refraction of the eye

- In an emmetropic eye far point is infinity and near point varies with age.
- In hypermetropic eye far point is virtual and lies behind the eye.



Far point in emmetropic eye (A), hypermetropic eye (B) and myopic eye (C)

**Pathophysiology.** To understand the pathophysiology of presbyopia a working knowledge about accommodation (as described above) is mandatory. C As we know, in an emmetropic eye far point is infinity and near point varies with age (being about 7 cm at the age of 10 years, 25 cm at the age of

40 years and 33" (at the age of 45 years). Therefore, at the age of 10 years, amplitude of accommodation (A) =  $100/7$  (dioptric power needed to see clearly at near point) -  $1/a$  (dioptric power needed to see clearly at far point) i.e., A (at age 10) = 14 dioptres; similarly A (at age 40)  $(100/25)(1/a) = 4$  dioptres.

Since, we usually keep the book at about 25 cm, so we can read comfortably up to the age of 40 years. After the age of 40 years, the near point of accommodation recedes beyond the normal reading or working range. This condition of failing near vision due to age-related decrease in the amplitude of accommodation or increase in punctum proximum is called presbyopia.

**Causes.** Decrease in the accommodative power of crystalline lens with increasing age, leading to presbyopia, occurs due to:

1. Age-related changes in the lens which include:
  - Decrease in the elasticity of lens capsule, and
  - Progressive, increase in size and hardness (sclerosis) of lens substance which is less easily moulded.
2. Age related decline in ciliary muscle power may also contribute in causation of presbyopia.

#### **Causes of premature presbyopia are:**

1. Uncorrected hypermetropia.
2. Premature sclerosis of the crystalline lens
3. General debility causing pre-senile weakness of ciliary muscle.
4. Chronic simple glaucoma.

#### **Symptoms**

1. Difficulty in near vision. Patients usually complaint of difficulty in reading small prints, (to start with in the evening and in dim light and later even in good light). Another important complaint of the patient is (difficulty in threading a needle etc.
2. Asthenopic symptoms due to fatigue of the ciliary muscle are also complained after reading or doing any near work.

#### **Treatment**

Optical treatment. The treatment of presbyopia is the prescription of appropriate convex glasses for near work.

A rough guide for providing presbyopic glasses in an emmetrope can be made from the age of the patient.

- About +1 DS is required at the age of 40-45 years,
- +1.5 DS at 45-50 years, + 2DS at 50-55 years, and
- +2.5 DS at 55-60 years.

However, the presbyopic add should be estimated individually in each eye in order to determine how much is necessary to provide a comfortable range.

#### **Basic principles for presbyopic correction are:**

1. Always find out refractive error for distance and first correct it.
2. Find out the presbyopic correction needed in each eye separately and add it to the distant correction.
3. Near point should be fixed by taking due consideration for profession of the patient.
4. The weakest convex lens with which an individual can see clearly at the near point should be prescribed, since overcorrection will also result in asthenopic symptoms.

**Presbyopic spectacles** may be unifocal, bifocal or varifocal

**Surgical Treatment** of presbyopia is still in infancy

#### **INSUFFICIENCY OF ACCOMMODATION**

The term insufficiency of accommodation is used when the accommodative power is significantly less than the normal physiological limits for the patient's age. Therefore, it should not be confused with presbyopia in which the physiological insufficiency of accommodation is normal for the patient's age.

#### **Causes**

1. Premature sclerosis of lens.
2. Weakness of ciliary muscle due to systemic causes of muscle fatigue such as debilitating illness, anaemia,



toxaemia, malnutrition, diabetes mellitus, pregnancy stress and so on.

3. Weakness of ciliary muscle associated with primary open-angle glaucoma.

### Clinical features.

All the symptoms of presbyopia are present, but those of asthenopia are more prominent than those of blurring of vision.

### Treatment

1. The treatment is essentially that of the systemic cause.
2. Near vision spectacles. in the form of weakest convex lens-which allows adequate vision should be given till the power of accommodation improves.
3. Accommodation exercises help in recovery, if the underlying debility has passed.

## PARALYSIS OF ACCOMMODATION

Paralysis of accommodation also known as cycloplegia refers to complete absence of accommodation.

### Causes

1. *Drug induced r cycloplegia* results due to the effect of atropine, homatropine or other parasympatholytic drugs.
2. *Internal ophthalmoplegia* (paralysis of ciliary muscle and sphincter pupillae) may result from neuritis associated with diphtheria, syphilis, diabetes, alcoholism, cerebral\_or meningeal diseases.
3. *Paralysis of accommodation as a component of complete third nerve paralysis may occur due to intracranial or orbital causes.* The lesions may be frauirlatic inflammatory or neoplastic in nature.

### Clinical features

1. Blurring of near vision. It is the main complaint in previously emmetropic or hypermetropic patients. Blurring of near vision may not be marked in myopic patients.
2. Photophobia (glare) due to accompanying dilatation of pupil (mydriasis) is usually associated with blurring of near vision.

3. Examination reveals abnormal receding of near point and markedly decreased range of accommodation.

### Treatment

1. Self-recovery occurs in drug-induced paralysis and in diphtheric cases (once the systemic disease is treated).
2. Dark-glasses are effective in reducing the glare)
3. Convex lenses\_for near vision may be prescribed if the paralysis is permanent.

## SPASM OF ACCOMMODATION

Spasm of accommodation refers to exertion of abnormally excessive accommodation.

### Causes

1. Drug-induced accommodation is known to occur after use of strong miotics such as echothiophate and DFP.
2. Spontaneous spasm of accommodation is occasionally found in children who attempt to compensate for a refractive anomaly that impairs their vision. It usually occurs when the eyes are used for excessive near work in unfavourable circumstances such as bad illumination bad reading position, lowered vitality, state of neurosis, mental stress or anxiety.

### Clinical features

1. Defective vision due to induced myopia.
2. Asthenopic symptoms are more marked than the visual symptoms.

### Diagnosis

It is made with refraction under atropine.

### Treatment

1. Relaxation of ciliary muscle by atropine for a few weeks and prohibition of near work allow prompt recovery from spasm of accommodation.
2. Correction of associated causative factors prevent recurrence.
3. Assurance and if necessary psychotherapy.

ഭാർമ്മ

A Day In The OP

അമ്പലമുറ്റവും, അരയാലിലകളും മുകളുമായ് -  
 നിൽക്കുമി സന്ധ്യയും ചേർന്നെന്ന  
 കൊ പ്പുചോയെങ്ങോ, പഴയകിന്റാവിന്റെ  
 തീരത്തു ഞാനെന്നും കാണാതെ നിൽക്കുന്ന  
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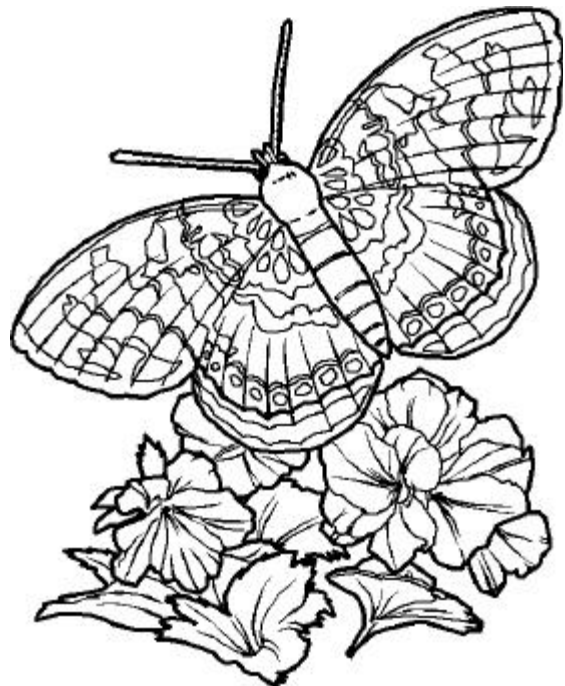
Why do I come here?  
 Into the eyes I do peer  
 searching for a spark of light and dark  
 But where is the the sight?

Why do I come here?  
 Being bored and being a bore..  
 I gain nothing but a sore  
 But where is the light?

Why do I come here?  
 I am never excluded,  
 Was I ever included..  
 But, where do I alight..

I have lost  
 the sight,  
 the light and the way to alight....

Gliny  
 THQH Harippad



മിനി വി എസ്സ്  
 C/o Biju K R  
 CHC Arunoottimangalam

# VISUAL IMPAIRMENT DISABILITY CATEGORIES

**Sujatha P V  
PHC Pizhala**

Millions of people around the world are inflicted by some type of disability. Despite laws that have been passed that have improved the life styles of person with disabilities, these people face difficult challenges in their every day lives.

Visual impairments are divided into two general categories, blinders and low vision. Individuals with blindness have absolutely no sight or have so little that learning must take place through other senses. Only 10-15% of the visually impaired population is totally blind.

Low vision is a bilateral impairment to vision that significantly impairs the functioning of the patient, and cannot be adequately corrected with medical surgical , therapy, conventional eyewear or contact lenses. It is often a loss of contrast. Low vision services do not cure the cause of the vision to its fullest potential.

Various scales have been developed to describe the extent of vision loss and define blindness and it differs from country to country . Visual impairment disability in India is categorized based on its severity. Percentages are accorded as proposed by a sub committee under the chairmanship of ministry of social justice and empowerment. Categories of visual disability classification currently in use, based on its severity and proposed disability percentages all with correction is as follows.

Category No	Better Eye	Worse Eye	% of impairment
-0-	6/9 - 6/18	6/24 -6/36	Mild 20% - 30%
Category 1	6/18 - 6/36	6/60 - nil	Moderate 40 - 750%
Category 2	6/60 - 4/60	3/60 - nil	Severe 75 - 90%
Category 3	3/60 - 1/60	F.C at 1ft to nil	Total 100%
Category 4	F .C at 1ft to nil or field of vision 10 degree	F.C at 1ft to nil or field of vision 10 degree	Total 100%
One eyed persons	6/6	F.C at 1ft to nil or field of vision 10 degree	30%

In spite of the ministry of Health's notification that a person with <40% disability will not be eligible for benefits/concession, in multiple disabilities, even a relatively small visual disability could make a difference in the final certification. There is a provision to combine neurological and musculoskeletal system. The disability with the lower score (b) is added to the highest score (a) and final disability is calculated using the formula, Combined disability = a+ [b(100\*a/100)]. This means that person with 25% neurological and 20% visual disability would have a combined disability of 40%.

For a person to be considered legally blind, he/she must have a visual acuity of 6/60 or worse in the better eye with best possible correction or a visual field which subtends to an angle of not greater than 20 degrees. One is considered economically blind when eye sight is dimmed so much as to constitute a barrier to economic endeavor that VA<6/60 to 3/60. A person with VA 3/60-1/60, is considered as socially blind and if it is 1/60-PL he is considered as absolute blind.

# COMPUTER VISION SYNDROME (CVS)

Dr. A. Bindu  
G.H Ernakulam

It is a complex of eye vision problems related to near work which are experienced during or related to computer use. It affects 80-90% of people who use computer for more than 3 hours a day.

## WHAT IS THE CAUSE

- All levels of radiation from computer screens are below levels that can cause eye damage.
- Problems that arise are due to prolonged near vision use.
- Character on computer screen about leave described contest or well defined edges Hence near focusing for prolonged periods puts strain on ciliary muscles causing asthenopia .
- Normal link rate is 15-16/min. while staring at the monitor blinks rate is reduced to 6-7/ min leading to dryness & irritation of eyes due to improper tear resurfacing. This is aggravated by
- Use of air conditions & overhead vents  
Improper working conditions like
  1. Faulty posture.
  2. Improper lighting.
  3. Glare from surroundings.
  4. Improper positioning of monitors.
  5. Continuous hours of work.

## SIGNS & SYMPTOMS

Headache  
Blurred vision

Difficulty in refocusing  
Double vision  
Eye pain  
Red, irritated, watering eye  
Contact lens discomfort  
Neck pain, back pain

## WHAT IS THE SOLUTION

- Improve working environment
- Adopt correct posture.
- Remove overhead light sources, install blinds  
Screens or shades to reduce glare
- Use antireflection computer screens.
- Monitor should not be placed too high as it may cause neck & back pain .
- Place screen at 15-30 inches from eye and glare level should be at 10-20.
- Get eyes checked for refractive errors & wear corrective glasses.
- Antiglare glasses reduce glare but do not alleviate symptoms of cvs.
- Follow 20-20-20 rule that every 20mints, look beyond 20 feet & blink 20 times.
- Good lubricating eye drops relieve symptoms of dryness & irritability.
- Take a walk every 30 mints. This helps refresh eyes, mind and body.
- Following proper visual hygiene helps to keep professionals free of cvs.

## SIGHT

When we see,  
And when we witness,  
It only matters, our sight.  
Rainbows and rains,  
Greeneries and flowers,  
Our dears and nears,  
They are really a wonder.  
It is so dynamic,  
Beautiful and wonderful,  
Tremendous and humungous,  
This colourful world of sight.  
And if it happens to loose,  
The world of colours will fade,  
All our dreams scattered,  
All the scenes shattered.  
So less strain, less pain,  
More care, more rest,  
Start now and stop never,  
We, ll never loose it,  
Our dear sight again.

Nived Krishnan  
C/O P.V. Sujatha.

## ഏകത്വം

രാഗങ്ങളാലിരം പാടിയാലും  
വിശ്വഗാഢകനൊന്നു തന്നെ  
രൂപങ്ങൾ കോടികളെങ്കിലും  
ജീവന്റെ ജീവൻ ഒന്നു തന്നെ  
നിറമേറൈയെങ്കിലും  
മർത്തുന്നു ചോര ചോപ്പു തന്നെ  
നോവും സുഖവുമനുഭവിച്ചിടിലും  
ജീവിതമൊന്നു തന്നെ  
മുപ്പത്തിമുകോടി ദേവകളെങ്കിലും  
ഈശ്വരൻ സത്യത്തിലൊന്നു തന്നെ  
ഭാഷകളൊത്തിരി  
വേഷങ്ങളൊത്തിരി  
പാതകളൊത്തിരി  
ആളുകളൊത്തിരി  
എത്തിടുമേവരുമൊന്നിൽ തന്നെ

രാമചന്ദ്രൻ ബി  
ജനറൽ ആശുപത്രി  
അടൂർ

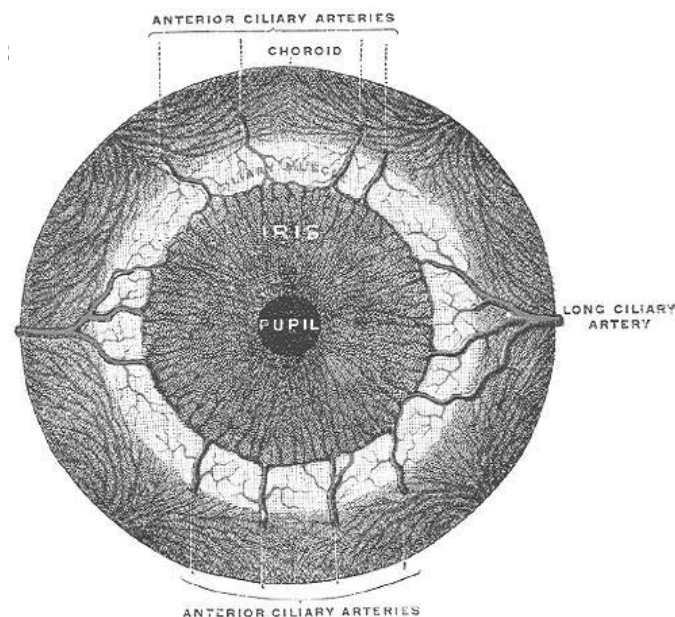
# BLOOD SUPPLY OF THE EYE

Renju  
PHC Vellankalloor

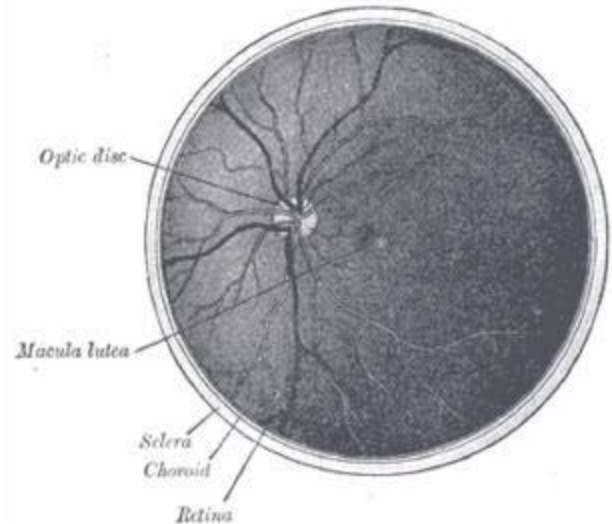
There are two circulations of the eye: the retinal and uveal, supplied in humans by posterior ciliary arteries, originating from the ophthalmic artery. The arteries of the uveal circulation, supplying the uvea and outer and middle layers of the retina, are branches of the ophthalmic artery and enter the eyeball without passing with the optic nerve. The retinal circulation, on the other hand, derives its circulation from the central retinal artery, also a branch of the ophthalmic artery, but passing in conjunction with the optic nerve. They are branching in a segmental distribution to the end arterioles and not anastomoses. This is clinically significant for diseases affecting choroidal blood supply. The macula responsible for central vision and the anterior part of the optic nerve are dependent on choroidal blood supply.

## Mechanism

Calf's eye dissected to expose the choroid: its tapetum lucidum is iridescent blue melanin, a darkly colored pigment, helps the choroid limit uncontrolled reflection within the eye that would potentially result in the perception of confusing images. In humans and most other primates, melanin occurs throughout the choroid. In albino humans, frequently melanin is absent and vision is low. In many animals, however, the partial absence of melanin contributes to superior night vision. In these animals, melanin is absent from a section of the choroid and within that section a layer of highly reflective tissue, the tapetum lucidum, helps to collect light by reflecting it in a controlled manner. The uncontrolled reflection of light from dark choroid produces the photographic red-eye effect on photos, whereas the controlled reflection of light from the tapetum lucidum produces eyeshine



## Blood vessels to macular region



The **ophthalmic artery** (OA) is the first branch of the internal carotid artery distal to the cavernous sinus. Branches of the OA supply all the structures in the orbit as well as some structures in the nose, face and meninges. Occlusion of the OA or its branches can produce sight-threatening conditions.

## Course and branches

### Course from internal carotid to orbit

The OA emerges from the internal carotid artery usually just after the latter emerges from the cavernous sinus although in some cases, the OA branches just before the internal carotid exits the cavernous sinus. The OA arises from the internal carotid along the medial side of the anterior clinoid process and runs anteriorly passing through the optic canal with and inferotemporal to the optic nerve.

### Central retinal artery

The central retinal artery is the first, and one of the smaller branches of the OA and runs in the dura mater inferior to the optic nerve. About 12.5mm (0.5 inches) posterior to the globe, the central retinal artery turns superiorly and penetrates the optic nerve continuing along the center of the optic nerve entering the eye to supply the inner retinal layers.

### Lacrimal artery

The next branch of the OA is the lacrimal artery, one of the largest, arises just as the OA enters the orbit and runs along the superior edge of the lateral rectus muscle to supply the lacrimal gland, eyelids and conjunctiva.

### Posterior ciliary arteries

The OA then turns medially giving off 1 to 5 posterior ciliary arteries (PCA) that subsequently branch into the long and short posterior ciliary arteries (LPCA and SPCA

respectively) which perforate the sclera posteriorly in the vicinity of the optic nerve and macula to supply the posterior uveal tract. In the past, anatomists made little distinction between the posterior ciliary arteries and the short and long posterior ciliary arteries often using the terms synonymously. However, recent work by Hayreh has shown that there is both an anatomic and clinically useful distinction<sup>[1]</sup>. The PCAs arise directly from the OA and are end arteries which is to say no PCA or any of its branches anastomose with any other artery. Consequently, sudden occlusion of any PCA will produce an infarct in the region of the choroid supplied by that particular PCA. Occlusion of a short or long PCA will produce a smaller choroidal infarct within the larger area supplied by the specific parent PCA.

#### Muscular branches

The OA continues medially the superior and inferior muscular branches arise either from the OA or a single trunk from the OA subsequently divides into superior and inferior branches to supply the extraocular muscles.

#### Supraorbital artery

The supraorbital artery branches from the OA as it passes over the optic nerve. The supraorbital artery passes anteriorly along the medial border of the superior rectus and levator palpebrae and through the supraorbital foramen to supply muscles and skin of the forehead.

#### Ethmoidal arteries

After reaching the medial wall of the orbit, the OA again turns anteriorly. The posterior ethmoidal artery enters the nose via the posterior ethmoidal canal and supplies the posterior ethmoidal sinuses and enters the skull to supply the meninges.

The OA continues anteriorly, giving off the anterior ethmoidal artery which enters the nose after traversing the anterior ethmoidal canal and supplies the anterior and middle ethmoidal sinuses as well as the frontal sinus and also enters the cranium to supply the meninges.

#### Medial palpebral arteries

The OA continues anteriorly to the trochlea where the medial palpebral arteries (superior and inferior) arise and supply the eyelids.

#### Terminal branches

The OA terminates in two branches, the supratrochlear (or frontal) artery and the dorsal nasal artery. Both exit the orbit medially to supply the forehead and nose.

#### Classification of ophthalmic artery branches

Because of the obvious importance of the ocular globe branches of the ophthalmic artery are often subdivided into two groups: those that supply the eyeball (ocular group) and those that supply nonocular orbital structures (orbital group). <http://education.yahoo.com/reference/gray/subjects/subject/146>

#### Orbital group

The orbital group, distributing vessels to the orbit and surrounding parts, includes:

- Lacrimal artery
- Supraorbital artery
- Posterior ethmoidal artery
- Anterior ethmoidal artery
- Internal palpebral artery
- Frontal artery, also called the Supratrochlear artery

- Dorsal nasal artery

#### Ocular group

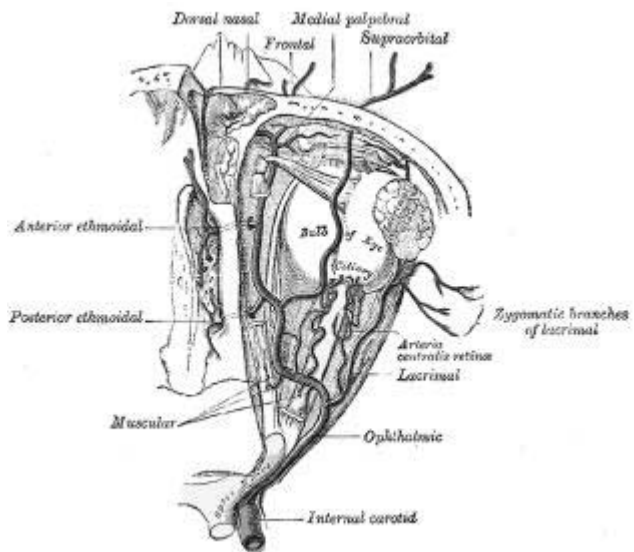
The ocular group, distributing vessels to the eye and its muscles, includes:

- Posterior ciliary arteries
- Long posterior ciliary arteries
- Short posterior ciliary arteries
- Anterior ciliary artery
- Central retinal artery
- Superior muscular artery
- Inferior muscular artery

#### Structures supplied by ophthalmic artery

Branches of the ophthalmic artery supply:

- Frontal belly of the occipitofrontalis muscle
- Inferior oblique muscle
- Inferior rectus muscle
- Lacrimal gland
- Lateral rectus muscle
- Levator palpebrae superioris muscle
- Medial rectus muscle
- Nasalis muscle
- Procerus muscle
- Superior oblique muscle . Superior rectus muscle



#### Occlusion

Further information: Ocular ischemic syndrome

Severe occlusion of the ophthalmic artery causes ocular ischemic syndrome. As with central retinal artery occlusions, ophthalmic artery occlusions may result from systemic cardiovascular diseases; however, a cherry red spot is typically absent and the vision is usually worse. Amaurosis fugax is a temporary loss of vision that occurs in two conditions which cause a temporary reduction in ophthalmic artery pressure: orthostatic hypotension and positive acceleration. Even complete occlusion of the ophthalmic artery may possibly leave the eye without symptoms, probably because of circulatory anastomoses

**Gradation List of Ophthalmic Assistants  
as per Order No. Spl.Cell5-104347/91/DHS Dated 25-03-1993**

<b>Rank</b>	<b>Name</b>	<b>Date of Birth</b>	<b>Date of Joining</b>
1	P A Paul	04-11-1942	10-08-1966
2	M Gopinathan Nair	23-04-1945	10-08-1966
3	R Santha Kumari	26-03-1945	10-08-1966
4	J Godwin	18-02-1941	31-10-1966
5	K Gopinathan	20-06-1945	16-06-1967
6	T K Kumaran Nair	01-04-1941	28-04-1969
7	G Krishnamma	17-05-1946	14-04-1971
8	S Rajagopalan Nair	28-05-1948	19-12-1970
9	M Muraleedharan	10-05-1950	15-04-1971
10	S Sujatha	08-05-1947	19-12-1970
11	S Pankajakshan	18-01-1950	01-06-1973
12	G Prabhakaran	22-03-1949	28-05-1973
13	V V Rajeswaran	20-01-1948	28-05-1973
14	K K chandramohandas	14-05-1948	04-06-1973
15	A Vahabkutty	07-04-1949	
16	R Velayudhan Nair	12-05-1945	18-06-1973
17	K Lalithambaran Nadar	01-06-1946	12-06-1973
18	C Ambujakshy	29-05-1947	15-06-1973
19	C J Justine	12-09-1954	12-11-1976
20	B Premakumaran	01-03-1947	31-12-1976
21	S Suriya Bhai	21-05-1948	04-01-1977
22	C Vasanthakumari Amma	05-04-1948	06-01-1977
23	P Purushothaman Nadar	07-09-1947	31-12-1976
24	S Saraswathy Amma	02-04-1949	30-12-1976
25	A K Goplakrishna Pillai	12-08-1943	02-01-1977
26	S Nirmala Devi	06-12-1954	19-01-1977
27	R Girijakumari	18-02-1949	24-07-1977
28	N S Ganesan Nair	02-10-1952	11-08-1977
29	S Ishak	19-10-1945	12-01-1978
30	K V Jayarajan	18-06-1950	17-01-1978
31	K R Prassanna Kumari	04-03-1952	13-01-1978
32	Anil J Edaicode	01-05-1946	10-07-1978
33	K R Shaila	10-10-1954	16-08-1978
34	S Sushamakumari	30-05-1955	26-09-1978
35	N S Anitha	28-05-1957	24-11-1978
36	N Bhaskaran Asari	09-11-1947	24-11-1978
37	S Mallika	04-06-1951	25-02-1979
38	P Padmavathy	17-04-1946	14-02-1979
39	Susan Malayil	30-11-1953	20-02-1979
40	M K Damayanthi	13-03-1947	14-02-1979
41	Maria Thankom	01-10-1949	22-02-1979
42	M Reghukumar	24-02-1948	13-02-1979
43	C Omana Amma	22-01-1949	17-12-1979
44	K S Sathiamony	30-05-1951	12-02-1979
45	K Vasantha	22-12-1947	16-02-1979
46	G Chandrika	05-04-1947	16-02-1979
47	N Gayathri Bai	04-06-1950	01-02-1979

Rank	Name	Date of Birth	Date of Joining
48	S Sukumaran	01-06-1950	09-02-1979
49	K Syamala	04-05-1948	14-02-1979
50	C Chandrakumari	07-10-1946	26-08-1979
51	G U Sathish	07-05-1957	04-12-1979
52	S S Babuji	30-05-1958	28-08-1979
53	N C Surendran	27-04-1956	28-08-1979
54	G Lethika Kumari	02-06-1958	01-12-1979
55	K Rajambika	28-11-1957	30-11-1979
56	M Radha	10-10-1952	09-09-1980
57	K L Amminikutty	21-11-1955	09-09-1980
58	K Gopinathan Asari	06-10-1954	05-05-1981
59	D Devarajan	30-11-1956	05-05-1981
60	Susan George	30-05-1957	01-08-1981
61	T N Raveendran	18-10-1957	23-09-1981
62	K P Ponnammal	13-11-1955	23-09-1981
63	M L Geetha	04-04-1957	01-10-1981
64	Zacharia Antony	01-05-1959	24-09-1981
65	M K Sankaran Potti	02-05-1956	01-10-1981
66	Marykutty Thomas	11-08-1957	03-03-1982
67	M Sarada	03-06-1957	21-05-1982
68	P V Sujatha	05-02-1957	05-07-1982
69	K Premalatha	25-10-1957	05-07-1982
70	R Vijayakumari	03-05-1959	06-09-1985
71	V K Krishnakumar	25-04-1960	24-10-1985
72	S Satheesh Kumar	30-05-1959	11-01-1985
73	J Saina	05-09-1960	24-10-1985
74	S Shereef	11-07-1959	24-10-1985
75	Lali K Oommen	27-05-1960	24-10-1985
76	A J Lali	26-01-1960	25-06-1986
77	C M Jessy	05-05-1950	26-06-1986
78	K Usha Kumari	11-05-1960	01-04-1987
79	T Anitha Kumari	09-04-1967	01-06-1989
80	Sabu G	15-05-1963	24-04-1989
81	Abdul Jabbarudeen M	07-05-1962	03-06-1989
82	Baiju K R	20-05-1961	29-05-1989
83	Jacob B Regi	27-05-1966	24-04-1989
84	Laila Beegam	03-11-1959	22-04-1989
85	Saji G	01-08-1963	26-05-1989
86	Vijayan M	19-02-1965	17-04-1989
87	Sathianesan V G	24-05-1965	24-05-1989
88	Beena V	27-05-1964	08-05-1989
89	Sushama E N	30-05-1966	17-04-1989
90	Viswasanthi C S	28-05-1962	28-06-1989
91	Sulochana K	10-03-1961	24-05-1989
92	Subhash K S	18-12-1964	17-04-1989
93	Rajila Beevi J	28-05-1966	24-04-1989
94	Shamy Varghese	30-05-1965	25-05-1989
95	- not clear -		
96	S Leena	05-05-1966	24-04-1989
97	Vimal Roy V P	31-05-1965	25-05-1989
98	Joseph T T	22-04-1960	25-04-1989



Rank	Name	Date of Birth	Date of Joining
99	Sheela L	29-05-1960	30-05-1989
100	Sudhadevi J	05-06-1963	24-04-1989
101	Sugunan P S	08-03-1961	24-04-1989
102	Jayesh Thompson T P	09-06-1963	27-05-1989
103	Naseera Beegum A	15-06-1962	24-04-1989
104	Sivanand P K	31-05-1965	17-04-1989
105	Lailakumari K	30-05-1966	24-04-1989
106	Ludhiyamma Chacko	30-05-1967	24-04-1989
107	Ameer Hamsath Beegum	28-05-1961	17-04-1989
108	Omana K A	20-07-1963	24-04-1989
109	Santhamma M P	20-05-1962	17-04-1989
110	Ushakumari S	20-04-1964	26-05-1989
111	Ushakumari G	20-05-1963	17-04-1989
112	Seema V	21-07-1960	23-05-1989
113	Jasim U	05-05-1962	05-06-1989
114	Rajeswari C K	20-05-1965	22-04-1989
115	Sulu E P	30-05-1965	17-04-1989
116	Retnakumari L	31-05-1964	27-04-1989
117	George Celin K George	18-07-1962	31-05-1989
118	Mercy V	21-07-1960	17-04-1989
119	Vishnu Maya T	20-05-1964	17-04-1989
120	Sujatha B	16-05-1964	31-05-1989
121	Siby T P	30-05-1964	17-04-1989
122	Marykutty Philip	25-05-1965	24-04-1989
123	Radhamani M K	20-04-1960	24-04-1989
124	Ushakumari V	20-07-1963	27-04-1989
125	Jaisree M V	30-05-1965	24-04-1989
126	Sanitha D	31-05-1965	24-05-1989
127	Mary Paulose	20-11-1964	25-05-1989
128	Thresiamma K M	02-04-1966	24-04-1989
129	Moly Thomas	31-05-1964	02-05-1989
130	Giji Thomas	01-06-1964	25-05-1989
131	V R Ambikakumari	22-05-1962	05-05-1989
132	Beena P	01-05-1966	24-04-1989
133	Asha Devi M	16-05-1966	25-05-1989
134	Ani Mathew	25-05-1966	24-04-1989
135	Sreekumar P	31-05-1966	24-04-1989
136	Geetha Kumari R	28-05-1964	26-04-1989
137	Binu Peter	27-11-1964	29-05-1989
138	K K Naseema	03-07-1961	25-10-1989
139	S Samdevadhasan	30-07-1962	30-10-1989
140	T Krishnaswami	01-06-1963	01-11-1989
141	Sherly M	25-05-1968	05-01-1991
142	Sivadasan P K	07-06-1961	02-01-1991
143	Rajendran A	01-05-1964	07-01-1991
144	Usha O	31-05-1967	06-01-1991
145	Thankamany J	02-12-1960	02-01-1991
146	Sankara Narayanan V C	30-04-1965	16-01-1991
147	Narayanan T P	24-05-1962	07-01-1991
148	Kirensingh T P	25-05-1963	07-01-1991
149	Sreelatha M M	01-06-1966	07-01-1991

Rank	Name	Date of Birth	Date of Joining
150	Venugopalan P	11-12-1960	01-01-1991
151	Pushpathilakom K V	11-06-1962	02-01-1991
152	Ashalatha G	04-03-1966	04-01-1991
153	Mani C V	01-05-1967	07-01-1991
154	Kumari Radhamani V	29-05-1960	09-01-1991
155	Mony L	30-05-1961	01-01-1991

**Gradation List of Ophthalmic Assistants  
From 01-01-1991 To 31-12-1993  
as per Order No. EF(S) 8677/94/DHS Dated 20-09-1994**

Rank	Name	Date of Birth	Date of Joining
1	Victor B L	02-05-1962	11-08-1992
2	Viji Mathew	30-05-1969	15-12-1992
3	Preethi A Salam	29-05-1969	10-12-1992
4	Vijayasree R	31-05-1968	10-12-1992
5	Sujatha P V	29-05-1969	05-12-1992
6	Remani J	25-04-1965	14-12-1992
7	M J Sherly	02-08-1966	15-12-1992
8	Lekha Sivaraman	30-05-1966	14-12-1992
9	Jayakumari K	07-03-1967	11-12-1992
10	Surabalan M K	28-05-1964	10-12-1992
11	Mercy Varghese	05-01-1968	14-12-1992
12	Sasikala S	28-03-1966	10-12-1992
13	K S Umadevi Antharjanam	22-02-1966	12-12-1992
14	Shahul Hameed A M	29-05-1966	07-12-1992
15	Mariamamma V K	30-05-1966	14-12-1992
16	Pressannakumari S	17-05-1966	10-12-1992
17	Chithra V R	12-01-1969	16-12-1992
18	Bindhu V Sidhic	30-05-1969	14-12-1992
19	Mohammed M P	28-05-1969	20-03-1993
20	Suganthy B	03-12-1965	12-04-1993
21	Kumari Preetha K P	25-06-1967	15-03-1993
22	Udayakumar E B	30-05-1968	18-03-1993
23	Nakshathravally C	02-05-1968	18-03-1993
24	Abdul Raheem P	07-05-1967	30-06-1993
25	Jayasree G	04-11-1967	01-07-1993
26	Sujatha A	30-05-1964	28-06-1993
27	Bidhumol P R	09-05-1969	01-07-1993
28	Sudheesh B R	21-06-1969	09-07-1993
29	Binoy R	30-05-1969	01-07-1993
30	Remani R S	10-11-1965	05-07-1993
31	Anni V V	15-12-1966	01-07-1993
32	Shareena S	14-05-1969	05-07-1993
33	Sheela D S	15-03-1965	01-07-1993
34	Abida K	30-05-1968	28-06-1993
35	David T J	05-05-1964	29-06-1993
36	Ulahannan P A	25-10-1963	01-07-1993
37	Jaya M V	26-02-1968	08-07-1993
38	S Sreekala Kumari	25-05-1969	28-06-1993
39	Girija U	06-04-1966	01-07-1993
40	Jayakumar S	06-05-1969	01-07-1993

Rank	Name	Date of Birth	Date of Joining
41	Jayamol V C	30-05-1965	01-07-1993
42	C M Sajitha Rani	10-04-1968	01-07-1993
43	Aseese S A	02-05-1969	04-02-1994
44	Geetha S	28-05-1965	06-01-1994
45	Saramma Abraham	30-05-1964	14-02-1994

**Gradation List of Ophthalmic Assistants  
From 01-01-1994 To 31-12-1996  
as per Order No. EF(S) 24739/97/DHS Dated 18-08-1997**

Rank	Name	Date of Birth	Date of Joining
1	Reena Kumary K	07-05-1969	03-03-1994
2	P Santhakumary	22-02-1964	28-02-1994
3	C V Lathakumary	20-05-1966	08-03-1994
4	D ambika	22-04-1965	01-03-1994
5	M Nizamudeen	20-05-1969	28-02-1994
6	K P Valsala	28-09-1964	23-02-1994
7	C G Syamala	20-05-1969	28-02-1994
8	B R Shaji	30-05-1969	27-02-1994
9	S Sudha	30-07-1962	28-02-1994
10	M Dinesan	01-05-1962	25-02-1994
11	Minimol P Ulahannan	14-05-1969	24-02-1994
12	Saraswathy K K	28-02-1962	28-02-1994
13	Mayakumari M K	30-05-1969	28-02-1994
14	Nazeera Beevi A	25-05-1969	28-02-1994
15	Rajasree C K	01-04-1967	28-02-1994
16	Mariamamma K C	01-06-1968	25-02-1994
17	Sudhakumari R	18-07-1962	23-07-1994
18	Mohanan G	28-09-1957	14-07-1994
19	K C Rejani	24-11-1963	13-07-1994
20	Sajeev P	30-05-1965	14-07-1994

**Gradation List of Ophthalmic Assistants  
From 01-01-1997 To 31-12-1999  
as per Order No. EF(S) 121202/01/DHS Dated 21-10-2003**

Rank	Name	Date of Birth	Date of Joining
1	Lekha	30-05-1974	31-12-1997
2	Premnath K P	04-02-1969	10-04-1998
3	Manoj Kumar K	14-04-1970	31-03-1998
4	Lali J	20-05-1970	28-03-1998
5	Bindhu Therasia	15-05-1970	28-03-1998
6	Jaine Shiny M J	18-05-1969	30-03-1998
7	Justin Abraham A J	26-05-1969	01-04-1998
8	Saritha Kumari S L	28-05-1970	03-04-1998
9	Jayakumar P B	22-09-1967	28-03-1998
10	Ampili K	31-05-1973	31-03-1998
11	Jeeja P Sadasivan	26-02-1974	01-04-1998
12	Prasad R S	02-05-1974	01-04-1998
13	Ajitha K	25-05-1973	05-04-1998

<b>Rank</b>	<b>Name</b>	<b>Date of Birth</b>	<b>Date of Joining</b>
14	Mini P Varghese	16-04-1968	02-04-1998
15	Bindhu K S	30-05-1969	01-04-1998
16	Shibu D	30-12-1973	31-03-1998
17	Vijayadas J	30-05-1964	30-03-1998
18	Sunitha K S	30-05-1971	31-03-1998
19	Pradeepkumar P T	31-05-1967	04-04-1998
20	Priya George	30-04-1970	28-03-1998
21	Ganesh Kumar K	12-03-1974	30-03-1998
22	Sheena P T	24-05-1970	01-04-1998
23	V K Ravi	10-05-1971	28-03-1998
24	M Anvar Sadath	20-05-1974	30-03-1998
25	Ajith Kumar M C	31-05-1971	31-03-1998
26	Rani M	26-05-1969	30-03-1998
27	Jeena Beegam M N	28-05-1972	01-04-1998
28	Kavitha P	27-05-1973	29-03-1998
29	A A Sirajudeen	31-05-1968	30-03-1998
30	Smitha T	25-05-1974	06-04-1998
31	Sujatha R Nair	21-01-1969	30-03-1998
32	Nisa S	10-08-1972	30-03-1998
33	Tessy Varghese	27-05-1970	01-04-1998
34	Mohana Kumar R	02-05-1970	16-04-1998
35	Jyothi K P	25-02-1969	30-03-1998
36	Usha Kumari	22-04-1969	31-03-1998
37	Radhadevi S J	28-02-1972	06-04-1992
38	Vijayakumar V	02-11-1968	30-03-1998
39	Smitha M	07-05-1971	06-04-1998
40	Ajitha Kumari O A	01-05-1974	30-03-1998
41	Saleem Ayath	10-04-1970	01-04-1998
42	Sunila M Nair	20-05-1969	01-04-1998
43	Prathibha S	23-07-1972	31-03-1998
44	Leena S	25-05-1971	24-04-1998
45	Biju V S	20-04-1973	30-03-1998
46	Swapna V B	31-05-1972	03-04-1998
47	Jyothi L R	06-04-1968	01-04-1998
48	Moideen Seerakath	03-04-1971	05-05-1998
49	Vincent J	15-05-1968	31-03-1998
50	Faseena S	28-05-1971	01-04-1998
51	Ambili K S	25-05-1971	30-03-1998
52	E K Gireesh	24-05-1972	31-03-1998
53	Suja P	28-05-1969	31-03-1998
54	Jaleela P	16-05-1971	03-04-1998
55	Sheeja Sabastian	30-05-1971	26-03-1998
56	Uma Kumari I S	30-05-1974	30-03-1998
57	Geetha S	25-07-1963	03-04-1998
58	Saliha Beevi A	24-11-1968	06-04-1998
59	Biju B	02-12-1969	13-04-1998
60	Baburajan N S	14-01-1969	31-03-1998
61	Bhuvaneswari S K	31-05-1971	30-03-1998
62	Lovely K G	24-05-1966	06-04-1998
63	Vincy C Varunny	03-05-1974	31-03-1998
64	Udayabhanu T K	22-05-1967	03-04-1998
65	Bindu Mathew	30-05-1974	30-03-1998
66	Ajitha Kumari K	30-05-1968	04-04-1998
67	Suma M J	20-05-1970	06-04-1998
68	Latha P T	12-04-1968	31-03-1998

Rank	Name	Date of Birth	Date of Joining
69	Sasikala K S	30-05-1969	30-03-1998
70	A Surendran	30-05-1964	01-04-1998
71	Viswanathan A P	01-10-1965	02-04-1998
72	Remadevi A	31-03-1965	03-04-1998
73	Ajayakumar K C	20-05-1968	02-04-1998
74	Sunil Kumar S	25-05-1969	01-04-1998
75	Rajesh R	01-05-1973	30-03-1998
76	Babu K A	18-04-1967	15-04-1998
77	Geetha B M	28-03-1971	01-04-1998
78	Sasikala C C	25-01-1967	03-04-1998
79	Prasanna Kumari P C	12-01-1961	02-04-1998
80	Asadevi E	26-11-1966	06-04-1998
81	Rajasree P	28-05-1974	06-04-1998
82	Ambili P	02-05-1971	31-03-1998
83	Philip Simon C	25-04-1961	30-03-1998
84	Ambika C J	27-05-1960	06-04-1998
85	Maya M S	20-05-1971	06-04-1998
86	Madhu V V	25-05-1964	01-04-1998
87	Bindhu S	31-05-1967	04-04-1998
88	C K sajeevan	15-02-1970	31-03-1998
89	Valsa T T	22-11-1965	16-05-1998
90	Vinod Kumar P	08-03-1966	01-04-1998
91	Sreekala S	15-05-1968	03-04-1998
92	Usha Kumari K K	25-05-1969	07-04-1998
93	Sajan B	20-05-1971	01-04-1998
94	Amrutha Kour K V	22-09-1961	31-03-1998
95	Omana M	21-04-1964	21-10-1998
96	Rajan C	01-06-1964	26-10-1998
97	K Suresh Kumar	20-05-1969	26-10-1998
98	Indulekha S R	30-05-1967	24-10-1998
99	Umayadurgha S	13-05-1968	30-07-1999
100	Salahudeen S A	17-01-1970	25-08-2000

## OptoTips

- \* Snakes have a built in yellow filter in their eyes which protect them from ultraviolet rays.
- \* Owls have large eyes for optimum night vision. They have 3 eyelids, upper for blinking, lower for sleeping & a nictating membrane.
- \* The Bates Method is a controversial system of practices that are claimed to improve sight and reverse ocular disorders to normal.
- \* There are 2 types of age related macular degeneration - Wet(less frequent, most MD related Vn loss) & Dry(frequent,loss of central Vision)
- \* Qigong eye exercises are claimed to be effective against eye strain and tired eyes, astigmatism, double vision and even glaucoma.

# പ്രണയം

നഗരത്തിലെ തിരകളുള്ള പുസ്തകകടയിൽ അത്രയൊന്നും അറിയപ്പെടാത്ത വിദേശ എഴുത്തുകാരന്റെ പുസ്തകം തെരഞ്ഞു നിന്നപ്പോഴാണ് ഞാൻ അതുല്യനെ ആദ്യമായി കാണുന്നത്. വെളുത്ത വളരെ സുമുഖനായ ഒരു ചെറുപ്പക്കാരനായിരുന്നു അവനെങ്കിലും അവനൊരു കറുത്ത പച്ചയുടെ മുഖമാണെന്നും കണ്ണുകളിൽ വ്യക്തയുടെ നിഴലുണ്ട് എന്നും വളരെ വേഗം ഞാൻ തിരിച്ചറിഞ്ഞു. ആ അറിവ് ഒപ്പം വന്ന സ്നേഹിതയോട് വെളിപ്പെടുത്തിയപ്പോൾ എന്റെ അകാരണമായ സംശയങ്ങളെ 'വികലമായ കാഴ്ചപ്പാടുകൾ' എന്ന വാക്കുകളിലൊതുക്കി അവർ ചിരിച്ചു തളളി. ഒന്നു രാഴ്ച കഴിഞ്ഞ് ഒരുവധി ദിവസം വൈകുന്നേരം കടൽക്കരയിൽ അവനെ വീണ്ടും കണ്ടു. സൗഹൃദത്തിന്റെ ഒരു കൂത്തു ചിരി എനിക്ക് സമ്മാനിച്ച് അവൻ കടന്ന് പോയപ്പോൾ അദ്ദേഹമായ ഒരു വല എനിക്ക് മീതേ വന്ന് വീഴുന്നത് ഞാനറിഞ്ഞു.

ഹോട്ട് ന്യൂസൊന്നും കടന്ന് വരാത്ത ഒരു സാലാഹനത്തിൽ പത്രമോഹിസിലെ ഡസ്കിൽ സുഹൃത്തിന്റെ അന്വേഷണാത്മക റിപ്പോർട്ടിൽ പരാമർശിക്കപ്പെട്ടിരുന്ന 'അതുല്യനെ' ഞാൻ തിരിച്ചറിഞ്ഞു. പ്രണയ നാട്യങ്ങളോടെ പെൺകുട്ടികളെ കീഴ്പ്പെടുത്തി വൻ ശൃംഘലയ്ക്ക് കൈമാറുന്ന ചാലകൻ, എന്ന് സുഹൃത്ത് വിശേഷിപ്പിച്ചിരിക്കുന്നത് അതുല്യനെയാണെന്ന് മനസ്സ് പറഞ്ഞ് തുടങ്ങി. പക്ഷെ അത് അയാളോടന്വേഷിച്ചപ്പോൾ നിരാശാജനകമായിരുന്നു മറുപടി.

പണ്ണിക്ക് ലൈബ്രറിയുടെ റീഡിംഗ് റൂമിലായിരുന്നു വീണ്ടും അതുല്യനെ കണ്ടത്. ആ കാഴ്ചയിൽ അവന്റെ അടുത്ത ഇര ഞാനാണെന്ന് തിരിച്ചറിഞ്ഞു. ചടുലമായ ചലനങ്ങളോടെ എഴുതിയ ചിരിച്ച് അവൻ അടുത്തേക്ക് വന്നപ്പോൾ പ്രത്യേകമായ തളിരൊടുക്കുകളോടെ ഞാനാ സൗഹൃദം സ്വീകരിച്ചു. യാദൃശ്ചികമെന്നവണ്ണം എന്നാൽ തികച്ചും ആസൂത്രിതമായി അതുല്യനെ ഞാൻ എന്റെ ജീവിതത്തിലേക്ക് ക്ഷണിച്ച് കയറ്റി. എന്നാൽ ഓരോ സന്ദർഭത്തിലും അതവന്റെ മിടുക്ക് കൊണ്ടാണ് അവനെ ബോധ്യപ്പെടുത്താൻ ശ്രമിച്ചുകൊണ്ടിരുന്നു. അടുത്ത അവധി ദിവസം കടൽക്കരയിൽ കാണാമെന്നും വളരെ ആരോഗ്യകരമായ സൗഹൃദത്തിന്റെ ഭാഗമാണിതെന്നും അവൻ ഭാവിച്ചപ്പോൾ വളരെ വിശുദ്ധമായ പരിവേഷം അതിന് നൽകി മാലാഖച്ചിറകുള്ള സ്വർഗ്ഗപുത്രിയാണ് ഞാനെന്ന നാട്യത്തിൽ എന്റെ അടുത്ത കരുതൽ നീക്കി. കാലാളെ ഇടത്തോട്ട് നീക്കി കൂതിരയെ മാറ്റിവെച്ച് ശത്രുക്കളുടെ നടുവിൽ നിൽക്കുന്ന ചതുരംഗപ്പലകയിലെ രാജാവിനെ ചെക്ക് പറഞ്ഞ് രക്ഷിക്കാനവസരം കൊടുക്കുന്ന എതിർ പക്ഷക്കാരന്റെ സുഖമാണെന്നിരിക്കപ്പോൾ അനുഭവപ്പെട്ടത്. ഇരകുടുങ്ങിയ വേട്ടക്കാരന്റെ സംത്യപ്തി അവന്റെ മുഖത്ത് വാലിച്ചപ്പോഴും വളരെ നിഷ്കളങ്കമായ യുവതിയുടെ റോൾ എന്റെ കൈയ്യിൽ ഭദ്രമെന്ന് ഞാൻ തിരിച്ചറിഞ്ഞു. ഐസ്ക്രീം പാർട്ടിയിൽ, ആകാശത്തിന് കീഴിലുള്ള സർവ്വ വിഷയങ്ങളെ കുറിച്ചും മണിക്കൂറുകളോളം ഞങ്ങൾ ചർച്ച ചെയ്തു. അവന്റെ അറിവിന്റെ മേഖലയുടെ പരിമിതി വളരെ വേഗം ഞാൻ തിരിച്ചറിഞ്ഞെങ്കിലും അവന്റെ അറിവിനെ അഭിനന്ദിച്ചുകൊണ്ട് നാലകനോടടുക്കുന്ന നായികയുടെ റോൾ ഞാൻ ഭംഗിയാക്കി.

തുടർന്നുള്ള ഒന്നു രാഴ്ച ഞാൻ മനപൂർവ്വം തിരക്കഭിനയിച്ച് മാറി നിന്നു. കാതരമായ ശബ്ദത്തോടെ അവന്റെ ഹോൺ കോൾ വന്നപ്പോൾ അവൻ അഭിനയത്തിൽ നിന്ന് മാറി കാര്യങ്ങൾ ഗൗരവമാകാൻ തുടങ്ങിയപ്പോൾ എന്ന് ഞാൻ ഭയപ്പെട്ടു. പക്ഷെ

അടുത്ത ദിവസം പെട്ടെന്നു വരുന്ന ഔദ്യോഗികാവശ്യത്തിന് നഗരത്തിലേക്ക് വന്നപ്പോഴാണ് പുകൾ തുന്നിയ പാവടലിട്ട ഒരു പഞ്ചാബി പെൺകുട്ടിയുടെമേൽ അവനെ കയ്യിൽ തൂങ്ങിക്കൊണ്ടിരിക്കുന്ന കിടന്നുറങ്ങുന്നവരുടെ തൊണ്ടിൽ നിന്ന് പിന്മാറി, പിന്നേയും നഗരത്തിന്റെ പല ഭാഗങ്ങളിലും പല ഇരകളോടൊപ്പം അവൻ കാണാതെ അവനെ തൊണ്ടിൽ കയ്യിൽ എടുത്ത് സംശയം വികലമായ കാഴ്ചപ്പാടാണെന്ന് പറഞ്ഞ സന്ദേശം സഹതാപത്തോടെ ഓർത്തു. പിന്നേയും തൊണ്ടിൽ കയ്യിൽ ആവേശത്തോടെ മുന്നോട്ടു നീക്കി. എന്റെ മനസ്സിൽ പതഞ്ഞൊഴുകുന്ന പകലും വെറുപ്പും ഭംഗിയായി പൊതിഞ്ഞ് വെക്കുവാൻ എനിക്ക് കഴിഞ്ഞു. അഭിനയ രംഗത്ത് എനിക്കൊരു ഉർവ്വശിപ്പും ഉറപ്പാണെന്ന് കാര്യമറിയാതെ അടുത്ത സന്ദേശം അഭിനയിച്ചപ്പോഴാണ് പകൽക്കും വെറുപ്പിനുമിടയിൽ തൊണ്ടിൽ തീരെ ശ്രദ്ധിക്കാതെ കിടന്ന ഒരു 'നിരാശ' എന്റെ ശ്രദ്ധയിൽ വന്നത്. എന്തിനായിരുന്നു അതെന്ന് തൊണ്ടിൽ ചികഞ്ഞു കൊണ്ടിരുന്നു.

ആശംസാകാർഷ്യങ്ങളും പിറന്നാൾ സമ്മാനങ്ങളും പരസ്പരം കൈമാറി പ്രണയിതാക്കളുടെ റോൾ തെങ്ങൽ മത്സരിച്ച് അഭിനയിച്ചു. പക്ഷെ ഇരയെ കൂട്ടുകാൻ അവന്റെ ഭാഗത്ത് നിന്നും ശ്രമമൊന്നും ഉണ്ടാകാതിരുന്നപ്പോൾ എന്റെ മനസ്സ് വെറുതെ ആകുലമാകാൻ തുടങ്ങി. പ്രേമപരീക്ഷിതമായി ഒരു സന്ധ്യക്ക് പത്രമോഹിനിയെക്കുറിച്ച് വന്നപ്പോഴാണ് തൊണ്ടിൽ ശരിക്കും അമ്പരന്നത്. എന്റെ ഒരു മണിക്കൂർ അവൻ ആവശ്യപ്പെട്ടു. വളരെ വിലപിടിച്ച ആ സമയം ഓഫീസിൽ അത്യാവശ്യമായത് കൊണ്ട് അടുത്ത ദിവസം കാണാമെന്ന് അവനെ ആശ്വസിപ്പിച്ചപ്പോഴാണ് ഒരു കവർ കൈകൾ തന്നെ അവൻ സന്ധ്യയിലേക്ക് ഇറങ്ങി രാത്രിയിലേക്ക് നടന്ന് പോയത്. അത്യാവശ്യം തിരക്കുകൾ കഴിഞ്ഞ് ആകാംഷയോടെ കവർ പൊട്ടിച്ചു. സംബോധനയോ ഔപചാരികതയോ ഇല്ലാത്ത ഒരു കുറിപ്പായിരുന്നു അതിൽ.

“എല്ലാം നിനക്കറിയാമെന്ന് എനിക്കറിയാമായിരുന്നു - ഒരു ദിവസം തൊണ്ടിൽ പിടിക്കപ്പെടുമെന്നും, പക്ഷെ ഒന്ന് മനസ്സിലാക്കുക - നീ ഒരിക്കലും എന്റെ 'ഇര' ആയിരുന്നില്ല. നീ എനിക്കാരാണെന്ന് വിശദീകരിക്കാനാണെന്നറിയാമായില്ല. സൂഹൃത്തന്ത് പറഞ്ഞാൽ പൂർണ്ണമായും ശരിയല്ല. കാര്യമെന്തെന്ന് പറഞ്ഞാലും പൂർണ്ണമാകുന്നില്ല. അനാഥത്വത്തിന്റെ വേദനയിൽ നിന്ന് തൊണ്ടിൽ മോചിപ്പിക്കപ്പെട്ടിരുന്നത് നിന്നോടൊത്തുള്ള നിമിഷങ്ങളിൽ മാത്രമായിരുന്നു. എന്നെ കുറിച്ച് എല്ലാം അറിഞ്ഞിട്ടും നീയഭിനയിച്ചുകൊണ്ടിരുന്നപ്പോൾ, മുത്തച്ഛൻ പേരുകുട്ടിയുടെ കളി കാണുന്ന വാത്സല്യത്തോടെ തൊണ്ടിൽ നോക്കി നിന്നു. തൊണ്ടിൽ ചെൽതതൊക്കെ തെറ്റാണ്. പക്ഷെ നിനക്കറിയാമല്ലോ - സംഘങ്ങളിൽ പെട്ടുകഴിഞ്ഞാൽ അതിൽ നിന്ന് ഒറ്റയ്ക്കൊരു രക്ഷപ്പെടൽ സാധ്യമല്ല. എങ്കിലും തൊണ്ടിൽ രക്ഷപ്പെടുന്നു. സംഘത്തിൽ നിന്ന് മാത്രമല്ല, ഈ ലോകത്ത് നിന്ന് കൂടി. അനാഥനായി ഈ ലോകത്ത് നിന്നും ഞാൻ തിരികുന്ന് എനിക്ക് നിന്നോട് ഒരുപാട് നന്ദിയുണ്ട്. ഒരു സൂഹൃത്തിന്റെ തണൽ തന്നതിന് .....”

കണ്ണു നിറഞ്ഞ് എനിക്ക് അക്ഷരങ്ങൾ വായിക്കാൻ പറ്റാതായി. എന്നെക്കാൾ മികച്ച ആ അഭിനേതാവിനോട് എനിക്ക് അസൂയയാണോ തോന്നിയത്? വീണ്ടും ആ 'നിരാശ' എന്തിന് തോന്നുന്നു? ഇര കണ്ടെത്തിച്ചാൽ വേട്ടക്കാരന്റെ മനസ്സ് ഇങ്ങനെ നൊമ്പരപ്പെടുമോ?

മിനി വി എസ്സ്  
C/o Biju K R  
CHC Arunootimangalam



**GOVERNMENT OF KERALA**

Abstract

Health & Family Welfare Department – Medical Education Services – Establishment – Refractionist, Orthoptist and Ophthalmic Assistant – Qualification and method appointment – Fixing of – Orders issued

**HEALTH & FAMILY WELFARE (B) DEPARTMENT**

G.O.(MS)No.606/2010/H&FWD

Dated, Thiruvananthapuram, 16.09.2010

- Read:- 1) Letter No.E2/7803/2007/DME dated 17.03.2008 and 11.01.2010 from the Director of Medical Education, Thiruvananthapuram.  
2) Letter No.AII(3)10179/2002/GW dated 28.10.2009 and 05.06.2010 from the Secretary, Kerala Public Service Commission, Thiruvananthapuram.

**ORDER**

Government in consultation with the Kerala Public Service Commission are pleased to prescribe the following qualification and method of appointment to the posts of Refractionist, Orthoptist and Ophthalmic Assistant in the Medical Education Department:-

**1.Qualifications:**

1. A pass in Pre-Degree with Physics, Chemistry, Biology/Mathematics as Optional Subjects or equivalent qualification.
2. Diploma in Ophthalmic Assistants Course (2 years) conducted by the Medical Colleges in Kerala or equivalent qualification.

**2.Method of appointment:-**

By direct recruitment

**3.Age Limit**

Must have completed 18 years and not completed 35 years of age as on 1<sup>st</sup> January of the year in which notification for selection is issued, with usual relaxation to SCs/STs and other Backward Classes.

(By Order of the Governer),  
Dr. Usha Titus,  
Secretary to Government.

To

The Director of Medical Education, Thiruvananthapuram.  
The Secretary, Kerala Public Service Committee, Thiruvananthapuram (with CL).  
The P&AR Department.  
Stock File/Office Copy.

*Forwarded/By Order,*

*[Signature]*  
*Section Officer.*

✓



**PROCEEDINGS OF THE ADDITIONAL DIRECTOR OF HEALTH SERVICES (MEDICAL), DIRECTORATE OF HEALTH SERVICES, THIRUVANANTHAPURAM**

Sub:-HSD-Estt-Transfer and Postings of Ophthalmic Assistants-  
Orders issued.

Read:-Request of the incumbents.

**ORDER NO.EF4-49269/2010/DHS/DATED:17-08-2010**

The following Ophthalmic Assistants are transferred and posted to the institutions as noted below.

SL. No.	Name & Present Station	Station Transferred
1.	Sangeetha Vargheese, (High Court Order) PHC, Thavanoor, Malappuram (Dist.)	PHC Alloor, Thrissur (In the existing vacancy)
2.	K.A.Babu, CHC Chungathara, Malappuram.	PHC Parli, Palakkad (Vice Smt.S.R.Manju transferred)
3.	Smt.S.R.Manju, PHC Parli, Palakkad District.	CHC Kongad, Palakkad, in the open vacancy.

The date of relief and joining should be reported promptly.

Sd/-  
**DR.ROSY SEBASTIAN,**  
**ADDL. DIRECTOR OF HEALTH SERVICES**  
**(MEDICAL) IN CHARGE**

To  
The Incumbents

Copy to:-1.The District Medical Officer of Health,  
Thiruvananthapuram/Malappuram/Palakkad.  
2. The Medical Officer in charge, CHC Kongad/PHC Thavanoor/  
PHC Alloor/PHC Parli  
3. File/Stock file.

//Forwarded//

*S. S. S. S.*  
17/8/10  
**SUPERINTENDENT**

SR/17B

042509

**Proceedings of the Joint Director of Medical Education,  
Thiruvananthapuram**

MES-Estt-Abolition of Dual Control System – posting of Ophthalmic Assistants opted to DME – Posting-Orders issued.

1)GO(P)No.548/2008/H&FWD Dated 25.10.2008

2)GO(P)No.167/2009/H&FWD Dated 17.06.2009

3)GO(Rt)No.1869/2010/H&FWD Dated 06/05/2010

4)Order No.PLA1-2462/2005/DHSdttd.22/05/2010

**ORDER NO.H3/1431/2008/DME dated 24/05/2010**

The following Ophthalmic Assistants who have been opted for posting under Medical Education Department and transferred as such to Directorate of Medical Education as per the orders read above is posted in the institution noted against his/her name with immediate effect. He/She should relieve from the institution in which working at present to report before the Principal of Medical Colleges concerned for joining duty.

Name of Incumbent	Designation	Present station	Station to which posted
1-Sri.Surendran N C	Senior Grade	NMCH, Thrissur	NMCH, Thrissur
2-Vijayakumary . R	Senior Grade	RIO,Thiruvananthapuram	RIO,Thiruvananthapuram
3-Ushakumar.K	Senior Grade	RIO,Thiruvananthapuram	RIO,Thiruvananthapuram
4-Kiran Singh. N	Grade-1	Medical college, Alappuzha	Medical college, Alappuzha
5-Sasikala.S	Grade-1	RIO,Thiruvananthapuram	RIO,Thiruvananthapuram
6-Muhammed .M.P	Grade-1	PHC, Peringam	Medical college,Kozhikkode
7-Kumari Preetha .K.P	Grade-1	CHC,Poovar, Thiruvananthapuram	Medical college,Typm (PHC-Pangappara)
8-Ulahannan. P.A	Grade-1	Thiruvangoor PHC	Medical college,Kozhikkode
9-Sajitha Rani.C.M	Grade-1	MCH, Kottayam	PHC,Vakkom,Thiruvananthap.
10-Dinesh. M	Grade-1	Narikkuni CHC	Medical college,Kozhikkode

11- Mayakumari.M.K. <i>on maternity leave</i>	Grade-I	General Hospital, Thiruvananthapuram	Medical college, Alappuzha
12-Mohanakumar. R	Grade-II	PHC Ambalavayal, Wayanad	Medical college, Alappuzha
13-Amritha Kour. K.V	Grade-II	PHC, Poonthura	Medical college, Alappuzha
14-Salahudeen. S.A	Grade-II	MCH, KK D	Medical college, Kozhikkode
15-Haritha.R.O	Grade-II	CHC, Vandiperiyar, Idukki	Medical college, Kottayam
16-Manjula Devi Sarma ,N	Grade-II	PHC Edavanna	Medical college, Thrissur
17-Alice. T.D	Grade-II	CHC IRIVERI	Medical college, Kottayam
17-Indu . J	Grade-II	District Hospital, Kannoor	Medical college, Kottayam

Sd/-

Dr.M.K.Mangalam  
Joint Director of Medical Education

To  
The Incumbents concerned

Copy to: *The Dds, Tupm*

- 1)The Principal, Medical Colleges, TVPM/ALP/KTM/Thrissur/Kozhikkode
- 2)SF/OC/Records
- 3)Section concerned

Forwarded/ By order  
*Usha*  
Junior Superintendent

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**PROCEEDINGS OF THE ADDITIONAL DIRECTOR OF HEALTH  
SERVICES(MEDICAL), DIRECTORATE OF HEALTH  
SERVICES, THIRUVANANTHAPURAM**

Sub:- Transfer and postings of Ophthalmic Assistants-  
Modification -Orders issued.

Read:-1.This office order No.EF4/2089/10/DHS dt.3.5.10.

2.GO(Rt)N0.1869/2010/H&FWD dt.6.5.10.

3.Order No.EF4/42509/10/DHS dtd.24.5.2010.

4.Letter No.23396/K1/09/H&FWD dt.27.5.2010.

**ORDER NO.EF4-2089/10/DHS DATED.5.6.2010.**

Consequent on the abolition of dual control 18 Ophthalmic Assistants have been relieved from the Department to Directorate of Medical Education as per order read as 2<sup>nd</sup> and 3<sup>rd</sup> cited. As such the non-optees relieved from the institution under Directorate of Medical Education an to be accommodated in the existing vacancy in this Department. Accordingly the following transfer and postings are ordered with immediate effect.

1.	L.Sheela, Sr.Grade Ophthalmic Assistant, RIO,Thiruvananthapuram (Relieved from DME)	PHC,Poovar,Trivandrum District Vice- Kumari Geetha.K.P transferred to DME.
2.	Ani Mathew, MCH Unit, Pangappara, Thiruvananthapuram.	THQH,Chengannur Vice Indu.J Transferred to DME.
3.	J.Vincent, PHC,Vakkom,Tvpin (Relieved from DME)	THQH,Vadakkanchery, Thrissur Vice Smt. D.Santhakumari transferred.
4.	Smt.D.Santhakumari THQH,Vadakkanchery,Thrissur	PHC,Uzhavoor,Kottayam Vice R.Mohankumar transferred to DME.
5.	Anithakumari.T, RHTC, Chettikad,Alappuzha (Relieved from DME)	PHC,Thrikkakara,Ernakulam Vice Amruthakumar transferred to DME
6.	Sushama.E.N, CHC,Ettumannor,Kottayam	PHC,Paika,Kottayam Vice Alice.T.D Transferred DME.
7.	S.Divya, MCH,Thrissur (Relieved from DME)	CHC,Cheranelloor, Ernakulam Vice Sibi.T.P transferred
8.	Sibi.T.P, CHC,Cheranelloor,Ernakulam	GH,Ernakulam Vice Arun.R.T Retained at THQH,Pomani
9.	Shaiju Antony,	CHC,Adimali

	PHC, Madavana, Thrissur	(vice) Deepa Varghese transferred.
10.	Deepa Varghese, CHC, Adimali	PHC, Madavana, Thrissur Vice Shaiju Antony transferred
11.	Sindhumol.S, THQH, Chittoor, Palakkad	CHC. Erumeli. Kottayam (vice Sri. S. Sherief promoted)
12.	Rani, M MCH. Kozhikode, (Relieved from DME)	PHC Olavanna, Kozhikode (Vice Ulahannan.P.A transferred to DME)
13.	Arun.R.J.(under orders of transfer to GH. Ernakulam)	Retained at THQH Ponnani
14.	Sreelatha.M.M, (under orders of transfer to CHC, Kattappana, Idukki)	Retained at CHC Kanjittukara, Pathanamthitta.
15.	Sulochana, CHC. Kulakkada. Kollam ( Under orders of transfer to CHC. Kanjittukara	Retained at CHC Kulakda
16.	Hazeeja.B ( under orders of transfer to CHC. Kulakada. Kollam	Retained at CHC, Badaduka. Kasaragod ( until further orders)

S.L.No.1,2,3,5,6,7 and 12 are deemed to have joined duty on 29.5.2010 F.N. i.e the date they have reported for duty at this office and the respective District Medical Officer(H). The date of relief and joining duty should be reported promptly.

All the above transfers are subject to review as per the direction in Government Letter No.23396/K1/09/H&FWD dated 27.5.2010, on finalising the reassignment of posts of Senior Grad<sup>d</sup> at General Hospitals and District Hospitals in this Department.

Sd/

Dr. Salma.

Addl. Director of Health Services(M)

To

The Incumbents (through the Institution concerned)

Copy to:-

1. The Accountant General, Kerala, Thiruvananthapuram
2. Medical Officer i/c, CHC, Poovar.

/ Forwarded //

*Salma*  
5/6/10  
Superintendent

Vm-5/6

## World Sight Day Celebrations in Malappuram District Govt: Taluk Head Quarters Hospital, Ponnani



Exhibition



Smt.M P Kalyanikutty, RDO  
Inaugurating the function



Eye Camp

**Eye Camp Organised in Connection With  
GOAK 19th State Conference  
At Poor Home, Fort Kochi**



Pranoy S P  
S/o Preeja Prasad  
PHC Mundankunnu