

Eye Care through Eye Exercise: A Critical Review

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ABSTRACT

To focus light, eye uses a flexible lens, and a circular muscle (the ciliary). For distance vision the shape of the lens allows the muscle to be relaxed. When you look up close the ciliary muscle becomes tense or contracted to change the lens shape to give clear close-up vision. Eventually there is spasm of ciliary muscle due to its constant contraction when looking at close objects. When it fails to fully relax, the lens cannot entirely return to focus on distant objects. This is when our distance vision becomes blurred and role of Eye exercises comes into action.

As like Body needs an exercise in many ways, similarly eye needs an gentle exercises to overcome a some of the visual disturbances. This "eye exercise" relieves strain on the focusing muscle inside the eye and on the muscles that control eye alignment (which have to work harder when focusing on near objects compared with looking at objects far away). It also stimulates blinking, which can relieve or lessen dry eye symptoms associated with prolonged near work and screen time. So it is aimed at improving the use of extrinsic muscles and the mechanism of accommodation.

KEYWORDS: Eye exercise, Ciliary muscle, Accommodation, Vision

INTRODUCTION

In 1920, William Bates wrote a book "Perfect sight without glasses" where he states that the eye does not focus by changing the power of the lens¹, but rather by elongating the eyeball, through use of the extra-ocular oblique muscles. He believed that refractive errors of eye are caused by tension of these extra-ocular muscles surrounding the eyeball, which he believed that it prevents the eyeball from sufficiently changing shape when gaze is shifted nearer or farther. Muscular tension is a consequence of a "mental strain", the relief of which he claimed would instantly improve sight². Bates felt that corrective lenses, which he characterized as "eye crutches", are an impediment to curing poor vision. In his view, "strain" would increase as the eyes adjust to the correction in front of them. He thus recommended that glasses be discarded by anyone by applying Eye exercise method³.

These eye exercises can broadly classified into three stages:

1. Stage one: Preparation
2. Stage two: Eye exercises
3. Stage three: Relaxation.

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Preparation:

- A. Head rolling: Neck movements and head rolling is done as follows to relax neck, head and muscles of the face.
- B. Netra prakshalana :- Method of Preparation of kashaya
 - Prepare weak solution of triphala kashaya by taking 1 cup of water add ¼ of triphala powder, then boil the solution later filter it.
 - Rinse your eyes by dipping Eye in eye cup. Keep the eyes downwards and blink while keeping them in the eye cup filled with Triphala kashaya. Wash each eye for a minute or two. This is done once before and after the sunning exercise.

Benefits:

1. Eye wash is useful to tone up the muscle.
2. It is anti-septic and anti inflammatory in addition to Chakshusya effect.

Eye exercise:

1. **Sunning:** Sun is the wonderful source and greatest nourisher of the eye. Suryachakshushyam adipathi

METHOD:

1. Ask the person to sit comfortably, now instill 2 drops of honey to the eyes.
2. After instilling ask the Person to face the sun with closed eyes and sway the body from side to side.
3. In cloudy days it is recommended to use 200 watt Bulbs.
4. Timing: Morning and evening for 3-5 min.

2. Palming

भुक्त्वा पाणितलं घृष्य चक्षुष्यदि दीयते। अचिरेणैव तद्वारि तिमिराणि व्यपोहति।। (गदनिग्रह)

- It's a simple idea of resting the eyes.
- Method:- Sit comfortably with the eyes closed, cover the eyes by your palms of the hands (finger being crossed upon the forehead). Elbows should rest on the cushion in such a way so as to avoid pressure on the eye ball.
- While palming think something pleasant and take deep breathing (50 to 100 counts) with mouth closed.
- Avoid quick jerky breathings
- This exercise can be practised several times in a day.

Benefits:

- Improvement in the Eye sight.
- Palming enhances the efficiency of the nerves.
- Relief of pain and feeling sense of coolness in the Head can be experienced.
- Increase in the Blood circulation to the surrounding areas.
- Feeling of Relaxation.

3. Eye massage

METHOD: - With the index fingers of both hands apply light pressure on the upper eye brow – do circular massage.

The movement of the fingers should be very light and circular on the orbit portion of the eyes. This may be done 5-7 times, keeping the eyes closed, in early hours of the day.

BENEFITS:-

1. Helpful in improving the blood circulation of eye muscles.
2. This delicate massage will give relaxation the eyes and improve the vision.

4. Candle flame concentration

- Sit facing the candle flame about 1 foot apart and gently move the body forward and backward with the rhythm of respiration, While keeping the sight towards flame.
- Continue the exercise till you complete counting upto 100 respiration.

Benefits:

1. Corrects the accommodative defects.
2. Stimulates Retina.

5. Ball Exercises:

- Throw the ball to the ground
- Observe the bounce.
- Move the sight along with the ball.
- Blink every movement when you catch it.
- Repeat it for 2 times daily with 50 counts.
- Useful for children.
- Helps to strengthen the ocular muscles and improves central vision.

6. Tossing

Toss the ball from one hand to other, in a semicircle. Move your sight along with ball and blink when you hold the ball

INDICATION

Myopia, Astigmatism, Squint, Ptosis.

Relaxation stage

- Relieving the strain of eye takes place in this stage; it is a form of mridu swedana.

1. Vapourization

Method : Take a bowl of water is heated to form a steam to this add few drops of Eucalyptus oil then the which is produced should be inhaled by covering the head and bowl with a blanket.

2. Cold pad

Method :- take two cotton pads dipped in cold water or in Mridwikaadi or Triphala kashaya, is placed on closed eyes.

Timing: 2-3 min (approx).

Benefits:- Vaporization acts as decongestant whereas cold pads tones up the muscle and soothen the eye after exercise.

Probable Mode of action:

- A refractive error means that the shape of our eye doesn't Refract the light properly. The image is blurred as the refractive rays fall either in the front of retina or behind. Therefore to see any object, light rays must be bent or Refracted by the cornea and the lens so that the rays can focus on the retina.
- So this is a condition where extra ocular muscles in-coordination and accommodation play important role. Eye exercise corrects the imbalance of ocular muscle, the accommodation and active the retinal function. Thus, helps in prevention and control of refractive errors including other eye problems, such as degenerative disorders of Optic nerve etc.

Discussion:

Implementing the Eye exercise needs a social awareness and particular assistance to the therapy. This vision therapy is an option for people whose blurred distance vision is caused by a spasm of the muscles that control eye focusing i.e. ciliary muscles. Various eye exercises can improve poor eye focusing ability and regain clear distance vision. Hence, there is the need to advise a eye exercises. Especially in this era of technology there is increased usage of screens. Focusing time on small screens has considerably increased. This leads to spasm of the ciliary muscles and causing Myopia, which can further lead to serious problems like cataracts and macular degeneration.

Conclusion:

The above guided exercises and relaxation techniques should be performed regularly to reduce the spasm of ciliary muscles, which was the causative factor for Near induced Transient Myopia (NITM) or Pseudo Myopia. The reduction in this spasm of ciliary or the focusing muscles of eyes would in turn reduce the NITM or Pseudo Myopia, thus improving vision.

The schools for perfect eye sight at Puducherry and several other research centres of Shalakyia tantra are actively practicing the eye exercise in refractive errors, thus creating awareness and implementing the methodology of eye exercise will play crucial role in improving sight.

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