

THE SYNTONIC CORRECTION OF SUB-NORMAL ACCOMMODATION

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Since the 1935 thesis on "The Syntonic Correction of Sub-Normal Accommodation" was published within the last six weeks I am assuming that most syntonists are familiar with its contents and it will be unnecessary to review in detail all of the twelve types mentioned therein.

You will remember that there are two types, the congenital and the acquired. The congenital consists of these born with a poorly balanced convergence accommodation and these anisometropes in which the eye of greatest refraction does not develop the accommodative function properly.

And in the acquired we have these whose general backwardness prevents development of the accommodation, the divergent and spastic squinters, these whose accommodation has been impaired by systemic toxemia, from exhaustion and from shock.

My experience of this year has proven that reliance can still be placed upon the methods of treatment mentioned in the 1935 paper except where additions or corrections will now be mentioned and reference to the other types nor mentioned here will provide a satisfactory method of treatment.

Early presbyopes (sub-normal accommodation between the ages of 38 and 44) have attracted my special attention this year and offers a very good field for research. The extent to which presbyopia could be retarded by Syntonics in conjunction with other technics would be most interesting and I feel constructive.

These early presbyopes seem to be of three classes, the latent hyperope, those suffering from toxemias and those lacking in vitality from general debility. The use of Syntonics is very important in each class but the treatment of latent hyperope differs radically from that of the toxic and debilitated.

In cases of latent hyperopes our problem is not to increase the power to accommodate for they have been over-accommodating for years. Eventually they become exhausted and overnight appear to have become presbyopic. This is not true however, and they will usually accept the full amount of plus for general use and with intelligent treatment quickly regain their ability to accommodate and keep from bifocals for some time. About a dozen applications of $\alpha\delta$ (alpha delta) alternated with μ (mu) will quickly restore their accommodative ability and make them happy.

On the other hand, the one who will not let go, who has the strength and tenacity to keep on accommodating even though it does hurt, takes different sort of syntonization entirely. His accommodation is in a spastic state and must be relaxed so he can wear his necessary correction constantly. Crowd the plus for distance, use temporary bifocals, syntonize with $\omega\delta$ (omega delta) alternated with μ and if you want quicker results, orthoptics with base in prisms and plus lenses. In a surprisingly short time the total prescription will be accepted for constant wear, accommodation will become comfortable and functions generally normal.

The toxic and debilitated types of early presbyopes and those of all ages suffering from sub-normal accommodation from the same causes require still different methods of treatment, but in the large majority of cases the results can be highly successful and redound to your credit.

Diagnosis here is extremely important. The toxic case usually displays a constricted red and/or green color field, and he complains of headaches when doing close work and often on arising in the morning.

Naturally the cause of the toxemia must be discovered and eliminated. Transillumination or X-ray of teeth, inquiry as to what is eaten at each meal, the regularity of elimination habits as to smoking, drinking, taking of drugs and occupation must be carefully inquired into until the cause of the toxemia is discovered.

If it is exogenic, the cause must be removed as quickly as possible. If endogenic and from improper diet or elimination this must be corrected before much is attempted to restore the accommodative function. From the first, however, Syntonics takes a most important place and will lessen by half the time required before orthoptics can be undertaken. $\alpha\delta$, not flashing is used from the start.

When considerable improvement of the color fields has been noted Orthoptics alternately stimulating and relaxing the ciliary should be undertaken, not too strenuously at first, but after most of the toxemia has been eliminated use the $\alpha\delta$ flashing and alternate with μ . If the patient is a female the prescription may be changed at this time to $\alpha\delta$ flashing and alternate with μ . If the patient is a female the prescription may be changed at this time to $\alpha\upsilon$ (alpha upsilon) with good results.

Careful attention to the diet is also advisable in cases resulting from debility through sickness or general under function but Syntonics is a greater help. Case history will usually give a clue as to the cause and a prescription of $\mu\delta$ (mu delta) will prove invaluable. After considerable progress has been made the flashing technic is recommended and Orthoptics alternately stimulating and relaxing the ciliary should be used.

$\alpha\delta$ alternated with μ for males, and $\alpha\upsilon$ alternated with μ for females except where noted in this paper, still seems to be the best all round Syntonic prescription for the majority of other types of sub-normal accommodation as reported in the 1935 paper. One of the most noteworthy changes discovered this year which was not given so much mention last year is the use of the flashing technic for restoring the accommodative function. This should be used with the $\alpha\delta$ except where advised otherwise in the toxic and debilitated cases.

There is not a technic or instrument which will successfully restore all functions to normal. It has been my experience that the majority of cases require several methods of treatment. Syntonics alone will not be entirely successful in every case but I can say this. It is the only treatment technic and instrument that I use in every case. No matter what the imbalance, every treatment ends with a prescription on the syntonizer. As its name implies, it should be used as a "Balancer" at the end of each treatment.

Diet plays the most important part in the lives of all humans. It is becoming pretty generally conceded (if not ballyhooed by the medical profession) that if we eat correctly and keep our elimination functioning properly we will remain healthy. You have seen many people come into your office with

high refractive errors, high enough to send others into nervous prostration, but these patients have seemingly not been seriously affected by them. Why? You will find that physically they are as tough as iron. Nothing like a couple diopters of astigmatism bothers them. Well, what do you think of the person who gets relief from a prescription of .25 Cyl.? They're sick! The slightest thing upsets them. Just like the drowning man they clutch at a straw for relief. Improper diet of their parents and themselves have started them off and they are sick people. In the majority of cases proper diet and living habits will start them on the road to recovery. Here Syntonics can also play an important role. It will assist in balancing the functions.

Every optometrist should familiarize himself with nature's way of keeping fit and regaining health through diet so he may recognize improper habits and properly advise his patients to secure the best results from his efforts at treatment.

A most important adjunct in Orthoptic treatment for restoring subnormal accommodation is the use of the flasher, both on the syntonizer and other treatment instruments. It forces accommodation, especially in an instrument designed to use cards with small print better than any other single technic. This is obtained not only through the urge to accommodate, to see, when the light flashes on but through the sympathetic stimuli obtained from the contraction of the iris under the light stimuli. Most of the newer instruments for obtaining ocular balance now come equipped with flashers, some even being quite elaborate in construction as to their flashing variety.

With the knowledge and means now at our command for diagnosis and treatment of sub-normal accommodation, there is no excuse for letting any case of this kind slip by without proper attention. Syntonics certainly plays a most important part in the balancing and returning to normal this condition the same as it does with so many others.