

THE SYNTONIC CORRECTION OF SUBNORMAL ACCOMMODATION

By

Wm. M. Stieren, Jr., Opt, D.

Optometry would be much further advanced today and have a higher standing among the professions were it not for the carelessness of the men responsible for its advancement, and at the same time its retardation, in overlooking details, and doing too much theorizing.

Credit must be given Dr. R. M. Peckham for awakening our consciousness to the important part the observance of minute details means in the diagnosis and treatment of eye troubles if we would treat them intelligently and secure the results for which we hope and retain our patient's confidence. His works, "Binocular Balance" and "Squints and Heterophorias" pioneer and are unequalled in the field of Neurological Optics and I wish to credit these works for considerable material used in this discussion.

The research problem I was allotted was "What Effect Does $\alpha\delta$ alternated with μ for the male and $\alpha\nu$ alternated with μ for the female have on Sub-Normal Accommodation". This did not give me a great deal of leeway for further experimentation. Even if it did, it is exceedingly hard for a practitioner to experiment on patients in his own office. Research work is best carried on in clinics or colleges where, first, there are a great number of patients available, second, it is costing them nothing, and last, the practitioner has the time and facilities for carrying out research work.

However, since Syntonics is still an infant and proper research facilities are not available, I wish to do my part in pioneering and observing what the Syntonic prescriptions did to my patients who were having accommodative difficulties.

In the past we would have tackled the problem as just sub-normal accommodation – anyone with low amplitudes was our victim, and if the prescription worked, Okay, and if not, well there must be something else wrong, so we sent him to an M.D.

There is, however, sub-normal accommodation AND sub-normal accommodation of no less than twelve varieties and if we know which this prescription helps and which needs different or further attention we will be better syntonists and keep the confidence of our patients.

Let's first consider the types and causes of low accommodative amplitudes. There are two general types – congenital and acquired. In the congenital there are two classes.

1. This class I would term hereditary. These are unfortunates whose parents have been of the lower order, never did much reading or close work, and have endowed them with a poorly balanced convergence accommodative system.

2. This class is partly hereditary and partly congenital. They are anisometric and the accommodation in the eye of greatest refraction does not develop to the extent of that of its mate. I have had cases of males where we know at least three generations have had nearly the same error of refraction in the same eye and amblyopia.

In the acquired types there are ten classes as follows:

1. lack of precocity. A child's visual impressions are vague and lacking in detail and in proportion to his awakening interest in things about him; the rapidity or slowness of the faculty of visual acuity and convergence accommodation.
2. In spastic squint the accommodative function is usually arrested equally in both eyes but later the dominant eye commences to function and develops latent hyperopia while the development of accommodation in the squinting eye remains arrested.
3. Diseases such as influenza, pneumonia, diphtheria, erysipelas, malaria and tuberculosis often impair the accommodation for months after apparent recovery.
4. Disturbances in the digestive, vascular and secretory systems produce reflex difficulties in the control of the intrinsic muscles of the eye, causing troubles in the function of accommodation which lenses fail to relieve.
5. Catarrhal colds and chronic catarrh often reduce the amplitude of accommodation causing difficulty and discomfort.
6. General nervous exhaustion, and nervous depression will impair the conductivity and conduction of the nerves causing sub-normal accommodation.
7. Exhaustion due to long hours of close work when there is uncorrected hyperopia will frequently cause loss of the accommodative ability due to neuritis.
8. Cases of shell shock or persons who have gone through explosions in their homes or at work suffer from loss of accommodation.
9. Accidents where a cervical has become misplaced frequently result in accommodative difficulties.
10. Divergent squint usually has an associated disturbance in the accommodative faculty which varies in the different types of squint.

In Syntonics, as in all our other work, we must be very careful to obtain a complete history and observe the minute details if we would make a proper diagnosis and disposition of the case.

The majority of these cases respond readily to Syntonics. Some as the misplaced cervical cases must be referred for mechano-therapy, others must have their diet regulated and some require orthoptics as well as Syntonics. I shall give the result of my experience as to the type of treatment necessary in the 26 cases which have come under my observation from the time I was given this problem to work with. I do not consider, however, that I have had enough cases of any of the different types to come to any definite conclusions.

Bear in mind that I am giving the results secured by using $\alpha\delta$ alternated with μ for the male and $\alpha\nu$ alternated with μ for the female and there was little experimenting with other wave lengths. It was necessary in the interests of my patients, though, to use other methods than Syntonics when they did not seem to respond completely to the Syntonic prescription.

Of the 26 cases eleven were females and fifteen males. Their ages were under 45 as I did not consider that my field of experimentation dealt with what we have usually considered actual presbyopes. I do believe a very good problem for someone would be to determine just what Syntonics would do to prevent the onset of presbyopia.

Now let's see what results we secured in the six months of observation.

Type 1.

Class 1. Two patients, both boys, 7 and 8 years of age. Parents laborers. Visual acuity 20/50 and 20/60 for distance, and only 40 percent at the near point. Small amounts of astigmatism, high dynamic lag; static shows some plus but it does not improve distant vision although near vision is improved with it. Syntonized $\alpha\delta$ for ten minutes and μ for ten minutes, the former flashing, daily for two weeks and then three weekly visits for three weeks at the end of which time both had 20/20 vision at distance and 100 percent at 36 cm. without lenses.

Class 2. Boy of 15, girl of 10, and girl of 24. Boy and oldest girl right handed with right eyes with high refractive errors which plus lenses did not improve materially. The Syntonic prescription improved vision from around 20/80 to 20/50 with the best lenses that could be given and reduced the error refraction to some extent but Manuductor treatments were necessary to bring vision to normal for both distance and near without a reading addition. The girl of ten was left handed with left eye underdeveloped and the same measures were necessary in her case. Syntonics, however, helped as I have had cases of this type before using Syntonics and they did not respond as quickly or as completely as did these.

We now take up type 2 of the sub-normal accommodative cases – the kind that are not hereditary or congenital but are acquired from accident or ill health.

Class 1. Lacking in precocity. No opportunity was given for me to observe the reaction in this type of case as none presented itself.

Class 2. Spastic squint with arrested accommodation. Male of 10, female of 9, and female 22. Was working with these cases when given my assignment so immediately used Syntonic prescriptions to help out the Squint Korector and Manuductor. The results were very gratifying. The two females have been discharged with normal vision and good amplitudes of accommodation and the boy patient is progressing very favorably. The girl of 9 I had been working with for two years, her eyes were straight at times but her vision was deficient at both distance and near. Syntonics cleared up this case with only a small refractive error, gave her normal vision and straight eyes, and I was almost at the point of distraction. Sometimes we get hold of cases and don't know how to get rid of them. This was one.

Class 3. Impaired accommodation as a result of disease brought me four patients within this period – two men and two women all between 30 and 42 years of age. While I cannot say recovery was complete in each case with the exception of their accommodation, they were well on their way and the Syntonization worked wonders here, not only with the accommodative faculty which returned to normal rapidly, but with their general vitality. These patients are staunch supporters of mine and will no doubt send in friends after sickness to receive added stimulus and aid their convalescence.

Class 4. Accommodative difficulties from disturbances in the digestive vascular and secretive systems. Three males and one female received lasting benefit. In addition to the Syntonic prescriptions these patients were put on a corrective diet and the return of their accommodative faculty was very rapid with complete normal functioning of the accommodation at the end of the treatments which varied from two to five weeks, and checks so far have proved the permanency of their return to normal.

Class 5. Catarrhal colds impairing the accommodation. One patient a man of 35, consulted me with the complaint that a most severe cold in the head had, for over a week, prevented any close work, everything blurring. Examination revealed that his lenses which I had prescribed six months previously were still correct for distance but he needed an addition of +1.50 for close work. Since I was on the lookout for just such a case, he was seized with much glee and placed before the syntonizer loaded with $\alpha\delta$ and μ , receiving ten minutes of each. This released a flood through his nose and he felt much better after the first syntonization. Ten of each of the prescriptions put him into better shape than before he had the cold, and with some advice on the merits of diet to prevent taking like colds he went merrily on his way.

Class 6. Sub-normal accommodation caused by impaired nerve conduction from general nervous exhaustion. One male and one female consulted me for accommodative relief caused apparently by this condition. The man was 42 and complained of great financial worries and business reverses. The female aged 41, had been grieving over the loss of her husband and could no longer read – from crying so she said. While both were on the eve of presbyopia and neither had ever worn glasses or even now needed them for distance, I went to work on them syntonically. Three weeks of our prescription did give them enough tonus to read comfortably at 36 cm. but there was no additional leeway and I am wondering how long it will be before they return or go elsewhere for reading glasses. Neither has been back as yet for check-ups as they have only been on their own for a short time. While their grievances still weighted heavily upon them I am confident they were lighter than before they consulted me.

Class 7. Exhaustion from long hours of close work with uncorrected hyperopia. Two male students, 17 and 19 years of age trying to burn the candle at both ends in an endeavor to cram a hurried education into their craniums reached the saturation point, and the toxic muscles rebelled. Proper lenses and daily syntonizations made new men of these students in ten days. They might have lost a year through nervous breakdowns had not our nerve rejuvenating rays given them a new lease on life.

Class 8. Shock. A comrade of the world war unable to work since that time, on total disability allowance from the Government, was again made a useful citizen by the application of this Syntonic wave length and modified lens prescriptions. He is today working in Washington and a very grateful patient. Two cases of oven explosions which destroyed accommodative functions came under my observation. Both females in their thirties. High lags, never wore glasses, but since their trouble had been to several practitioners of the various schools and given glasses which they could not wear. Unable to do any reading or sewing, nervous

wreck, nuisances to their families with their constant complaints. Four and six weeks of $\alpha\upsilon$ alternated with μ worked wonders, not only with their accommodation but with their entire nervous system, and while I would not call them entirely free from neurasthenia they, and their families, are vastly happier and I have in both cases recommended periodic syntonizations to secure further improvement.

Class 9. Misplaced cervical. None of these cases presented themselves and I doubt if anything by physiotherapy will help much. Have had several in the past where Orthoptics have been tried without results. There are many around as a result of our numerous automobile accidents. They should be watched for and not accepted as patients unless for experimentation.

Class 10. Disturbances in the accommodative faculty usually accompany divergent squint. When I started work on this problem I had a male patient to whom I had been giving orthoptics, and I immediately started to include $\alpha\delta$ alternated with μ as part of the treatment, and noted immediately a quickening of response not only by decreased lag in the squinting eye, but improvement in the length of time fusion could be maintained. In the following four months the case has been dismissed as satisfactory not only for fusion but as to convergence accommodative relationships. The patient was aged 32, right handed, right divergent squint, one diopter myopic astigmatism, high lags which reduced as the treatment progressed, although the minus did not increase. A 38-year-old female, right handed with left divergent squint needing a +2.00 in the squinting eye for near vision was returned to orthophoria, a prescription of +.50 O.U. for distance, and 100 percent visual acuity with the use of $\alpha\upsilon$ alternated with μ and squint Korector exercises. Although at an advanced age it was one of the easiest divergent cases I have ever handled.

There is no method of treatment that will alone act as a cure-all in every case. I am convinced that the application syntonically of $\alpha\delta$ alternated with μ for the male and $\alpha\upsilon$ alternated with μ for the female is of inestimable value in every case of subnormal accommodation, but alone it will not return every case to normalcy without the assistance of other indicated measures.

I might state, believe it or not, that all of the above cases were asthenic or sytonic types. There are no doubt pyknics suffering from subnormal accommodation, however I did not have a sufficient number of patients upon which to work to provide a true cross section of the subject.

DISCUSSION OF
THE SYNTONIC CORRECTION OF SUB-NORMAL ACCOMMODATION

by
H. C. Schreiber, Opt. D
Waynesburg, Penn.

Dr. Stieren has given much time and application to this subject as is evident in his typing and classification of Sub-Normal accommodation.

The multiple value of case history and care manifested in analyzing patients by the author proves his ability to distinguish cases positively aided by $\alpha\delta$ alternated with μ for the male and $\alpha\nu$ alternated with μ for the female. Had he used other frequencies in conjunction with the above there would be doubt as to the value of the prescribed frequencies.

Note, before using syntonics, several cases responded slowly, several responded then retracted, and still others were considered impossible. An outstanding fact is the rapidity with which these cases responded when syntonics was used. This quickened recovery saved energy, time and money for both the patient and doctor.

We are also willing to admit that other instrumentation gives aid to sub-normal accommodation, but let us consider these many appendages; digestive disturbances catarrhal colds, impaired nerve conduction, exhaustion, shock and other diseases. These had to be combatted before results could be obtained. Here, exercise failed and Syntonics conquered.

I would consider a slight amblyopic condition of great importance; for, we note that when cases failed to respond, light frequency acted as a stimulus to rebuild sensitivity of the retina. Thus, better co-ordination is created between the brain impulses to define, and impulses to accommodate. The awakening of a desire to see is of first importance.

You, having heard this paper, must answer this question to your own satisfaction, "Were these frequencies major or minor factors in the completion of these cases"? Personally, I find that twenty were major and six were minor. And subdivided, nine systemic, seven nerve exhaustion or shock, and ten muscular.

Even though there were only twenty-six cases under observation, the fact that twenty of these cases are major builds for us a fair expected.

Cases of the nature studied demand better knowledge of the human body. Quote "a la" Dr. Spitler. "Not an anatomy running around with a pair of eyes, but a pair of eyes running around with an anatomy." Study these cases and be convinced. These eyes control human beings – they were much concerned about their physical condition. You may rest assured when patients enter your office they realize your responsibility when they entrust you with their eye care. Dr. Stieren has not told you of the vast expenditure of time and energy to foster the proper psychological treatment of each case. The rehabilitation of the shell shock soldier should not only make us eye conscious, but also body conscious.