

THE IMPORTANCE OF DOING VISUAL FIELDS IN THE PRACTICE OF OPTOMETRY

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I have learned a lot by taking visual fields, via campimetry since June 1977 and caeconometry since November 1977, which has enabled me to help patients that heretofore, I was unable to treat or was unable to explain why they were experiencing visual difficulties.

Like most people who take visual fields, I was getting some strange and inconsistent results from time to time, and I could not explain why until may of 1980, when I had the opportunity to read the work of Ors. Brombach and Webb on this useful and challenging subject.

The utilization of Brombach's and Webb's techniques for the taking of *motion, form, and color* fields will start giving you very reliable information that cannot be obtained by any other method or be more easily understood by the patient, when explaining some of their visual difficulties.

Visual field studies, as outlined by Drs. Brombach and Webb, should be part of the routine optometric examination for the primary purpose of ruling out possibilities of outside interference, such as exogenous toxemia which is usually the difficulty with many so-called problem patients. By taking an A.M. and P.M. charting on each patient, you will find these problem patients *before they become* your problem patients. The P.M. charting should still be taken even though the A.M. may be normal, so tat the visual fields can be properly classified.

I would recommend the use of either a perimeter or a campimeter for the taking of motion, form and color fields rather than any of the electronic field instruments. The perimeter and campimeter will give more of a *functional* field than the electronic flashing instruments; cost much less; do take a little more doctor or technician time, but the additional information obtained far outweighs these aspects.

The following charts are the results of 25 years and over 30,000 patients tested by Ors. Brombach and Webb, and I am sure that if you take the fields as they instruct, you will obtain excellent results and will be providing a service to your patients that will be beneficial both to the patient and to you, the optometrist.

Typical Case Indications

1. Normal	M 1	F 16	R 16	C 16	
2. Normal	M 1	F 27	R 27	C 16	
3. Exogenous toxemia, stimulative stage	M 1	F 16	R 16	C 17	
4. Exogenous toxemia, depressive stage	M 1	F 16	R 27	C 18	
5. Exogenous toxemia, degenerative stage	M 1	F 16	R 27	C 18	S 1-4-10
6. Endogenous toxemia, primary type	M 1	F 27	R 27	C 27	
7. Endogenous toxemia, secondary type	M 1	F 27	R 27	C 27	
8. Endog. tox., focal infection, locked type	M 1	F 38	R 38	C 38	
9. Glandular dysfunction	M 1	F 16	R 16	C 27	
10. Glandular dysfunction	M 1	F 16	R 27	C 38	
11. Exhaustion, ocular fatigue	M 1	F 19	R 1-10	C 18	
12. Exhaustion, ocular fatigue	M 1	F 1-10	R 1-10	C 18	
13. Lesion of visual pathway	M 3, M 4, M 5, M 6, M 7, M 9 or M 10				
14. Pressure or lesions	M 9				

In clinical practice variations will be recorded. Activities of dual toxic agents may at first make it impossible to analyze field indications according to the formulas suggested for clinical interpretation.

Visual field analytical chart as measured by:

Campimeter

Perimeter

Method of testing			Total field	Nasal	Temporo
Motion	A white 5mm target is oscillated sideways toward the center until first recognition of movement while eye is fixating a central target. This point represents the <i>motion field</i> for that meridian.	1. O.U. Large	>70	>50	>70
		2. O.U. Medium	60-70	40-50	50-70
		3. O.U. Small	<60	<40	<50
		4. O.D. Large - O.S. Small			
		5. O.D. Small - O.S. Large			
		6. O.U. Vertical Sector Defect			
		7. O.U. Horizontal Sector Defect			
		8. Monocular Sector-shaped Defect			
		9. Irregular Sector-shaped Defects			
		10. O.U. Motion Perception Lost			
Form	A white 5mm target is moved toward center until the eye retains the perception of a white color when stationary. This point represents the extent of the <i>form field</i> for that meridian.	1. O.U. Large	55&>	40-48	40-50
		2. O.U. Medium	40-54	15-39	20-39
		A.M. 3. O.U. Small	39&<	<15	<20
		4. O.D. Large - O.S. Small			
		5. O.D. Small - O.S. Large			
		6. O.U. Large			
		7. O.U. Medium			
		P.M. 8. O.U. Small			
		9. O.D. Large - O.S. Small			
		10. O.D. Small - O.S. Large			
Relative Size of Color Fields	Size of color fields depends on technique of the operator, patient reaction, color sense of the patient, targets, instrument, lighting etc. Each operator must develop unique standards for their conditions.	A.M.	1. O.U. Large		
			2. O.U. Medium		
			3. O.U. Small		
			4. O.D. Medium - O.S. Small		
			5. O.D. Small - O.S. Medium		
		P.M.	6. O.U. Large		
			7. O.U. Medium		
			8. O.U. Small		
			9. O.D. Medium - O.S. Small		
			10. O.D. Small - O.S. Medium		
Color Fields	A color target is moved toward the center until the eye retains the perception of a true saturated color when stationary. This point represents the extent of the <i>field for that color</i> in that meridian.	A.M.	1. O.U. Normal		
			2. O.U. Green over Red		
			3. O.U. Red over Blue		
			4. O.U. Small Green - Red over Blue		
			5. O.D. Red over Blue - O.S. Green over Red		
		P.M.	6. O.U. Normal		
			7. O.U. Green over Red		
			8. O.U. Red over Blue		
			9. O.U. Small Green - Red over Blue		
			10. O.D. Red over Blue - O.S. Green over Red		

Scotoma Indications:

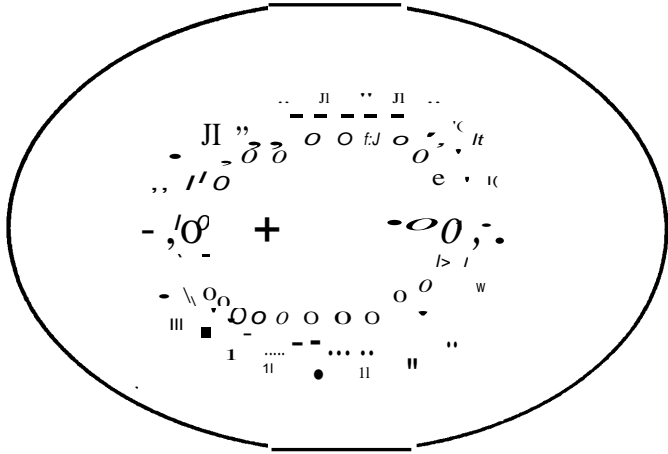
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|-------------|-------------|----------------|----------------|----------------|
| 1. Positive | 3. Absolute | 5. Central | 7. Paracentral | 9. Bilateral |
| 2. Negative | 4. Relative | 6. Pericentral | 8. Peripheral | 10. Unilateral |

Field Classification: M _____ F _____ R _____ C _____ S _____

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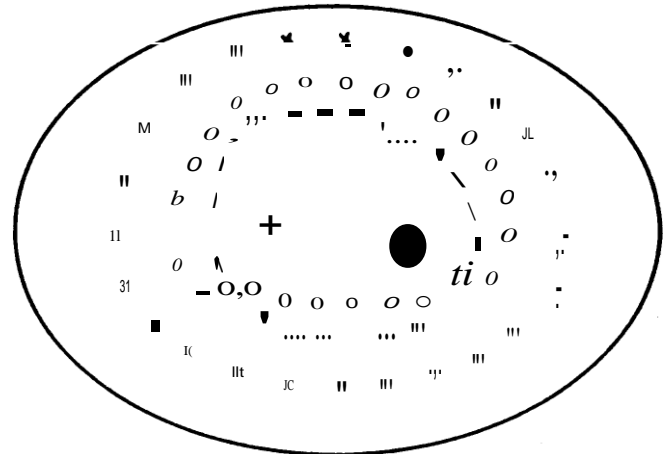
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Medium color fields: nonnal color relationship; F&M usually nonnal

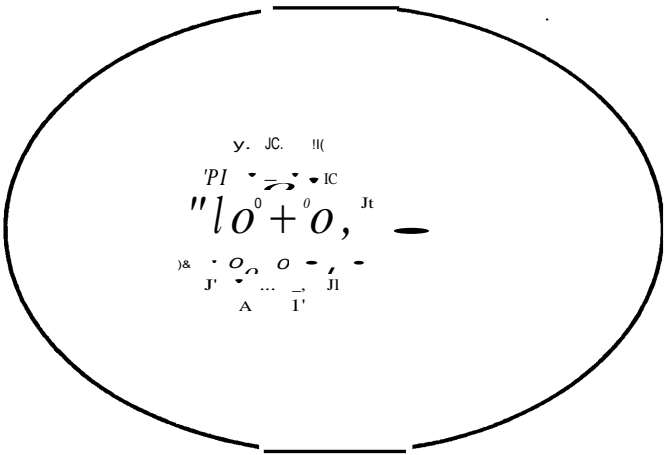
A.M. Charting

Exogenous Toxemia, First Stage (Stimulative Stage)



Large color field; green intertacing/overtapping red

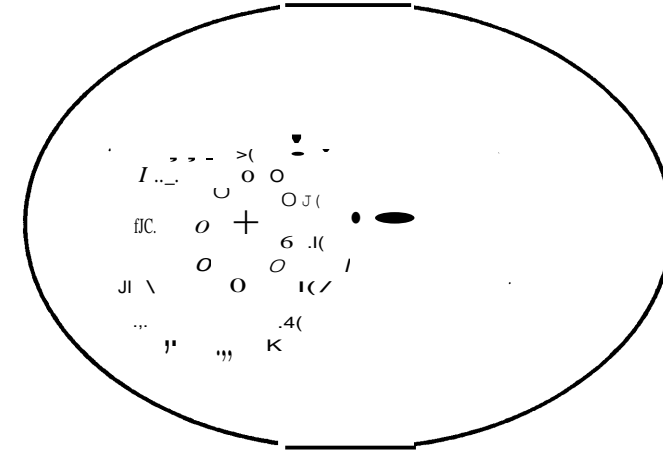
P.M. Charting



Small color fields; nonnal color relationships

A.M. Charting

Exogenous Toxemia, Second Stage (Depressive Stage)



Small color fields: red intertacing/overtapping blue
(One eye may be in first stage yeti)

P.M. Charting

Key: Fonn = ——— Blue = xxxxxx Red = - - - - - Green = 000000