

## **THE ALPHA OMEGA PUPIL by Charles Butts, O.D., Ph.D.**

The "alpha omega pupil" is a term unique to Syntonic Optometry. It is used to define a pupil which does not respond normally to light. When a penlight is directed at the eye continuously from the front, an "alpha omega pupil" may fail to constrict, or may constrict but fail to hold the constriction. The pupillary response is an indication of the size of the functional field, i.e., the faster the dilation (in the presence of the light source) the smaller the field. The response of one eye may differ from that of the other eye. Alpha Omega ( $\alpha\omega$ -Ruby) is the combination light frequency recommended to alleviate the faulty pupil function, hence the origin of the term.

### **Assessment of Pupillary Response**

Procedure for the right eye:

1. Position yourself slightly to the patient's right.
2. Instruct the patient to look straight ahead at a distant object, e.g. "the big E".
3. Tell the patient you will shine the penlight at their eye and they must continue to look at the distant target.

### **Observations**

1. Note the size of the pupil, a) in room light, b) in dim light and the pupillary responses.
2. Shine your penlight at the pupil, from the front, as close as possible to the patient's line of sight, and watch for one of the following responses:
  - a) The pupil constricts and holds the constriction, with some fluctuation, for at least 15 seconds, indicating normal reaction and normal field.
  - b) The pupil constricts but fails to remain constricted, reopening slowly, indicating a probably normal field; with possible physical stress and low adrenal action.
  - c) The pupil constricts but immediately releases and remains dilated, which indicates a field restricted to probably  $20^\circ$  or smaller.
  - d) The pupil fails to constrict, indicating a blind eye, a functional field loss, a drugged system, or a field of  $1^\circ$  to  $3^\circ$
3. Repeat the above procedures and observations on the other eye, shining the light at the eye from the left frontal position.

**Note:** Although a large pupil is more readily suspected as an "alpha omega" pupil, small pupils also may be seen to give the "alpha omega" response.

### **Treatment**

- a) None needed.
- b) Depending on the presence of complaints or symptoms, one might apply Alpha Omega ( $\alpha\omega$ =Ruby) or, in absence of complaint, do nothing.
- c) Use of Alpha Omega ( $\alpha\omega$ =Ruby) and Mu Delta ( $\mu\delta$ =yellow-green) is successful in 80% of cases.
- d) further investigation is warranted, and treatment, depending on the cause, may be given. (Omega [ $\omega$ =indigo] and/or Mu Upsilon [ $\mu\nu$ =blue-green] has proven successful in remediation depending on the cause, but particularly when trauma is involved.)