

**2009 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM**

**2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): (RE)**

Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

**3. PRESENTATION PREFERENCE (REQUIRED) Check one:**

- Paper  
 Poster  
 FAST Paper

4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'

Scientific Section Descriptions (two-letter code):

- (BE) OCULAR BIOENGINEERING
- (CO) CORNEA AND EXTERNAL DISEASE
- (CA) CATARACT
- (EF) ELECTROPHYSIOLOGY
- (EP) EPIDEMIOLOGY
- (EX) EXPERIMENTAL SURGERY
- (GL) GLAUCOMA
- (LA) LABORATORY
- (LS) LACRIMAL SYSTEM
- (LV) LOW VISION
- (NO) NEURO-OPHTHALMOLOGY
- (OR) ORBIT
- (PL) OCULAR PLASTIC SURGERY
- (PH) PHARMACOLOGY
- (RE) RETINA AND VITREOUS**
- (RS) REFRACTIVE SURGERY
- (RX) REFRACTION-CONTACT LENSES
- (ST) STRABISMUS
- (TR) TRAUMA
- (TU) TUMORS AND PATHOLOGY
- (UV) UVEITIS
- (US) OCULAR ULTRASOUND

**Deadline: Oct 12, 2009**

**FORMAT:**

Abstract should contain:

- Title**
- Author, Co-authors (maximum 6),**
- Purpose, Methods, Results,**
- Conclusion.**

Poster guidelines:

ARVO Abstract Book (1.10 x 1.70m)

**44. FIRST (PRESENTING) AUTHOR (REQUIRED):**

Must be the author listed first in abstract body.

- ( ) R1      ( ) R2      ( ) R3                      ( ) PIBIC  
 ( X ) PG0    ( ) PG1    ( ) Fellow                      ( ) Technician

Last Name: Marcos

First Name: Haroldo

Middle: Leão

Service (Sector): Centro de Oftalmologia Esportiva – Instituto da visão

CEP Number:

**Title: ASSOCIATION BETWEEN TWO DIFFERENT EXERCISE INTENSITIES AND THE CONTRAST SENSITIVITY – PILOT STUDY**

Author and Co-authors: Haroldo Leão Marcos; Rodrigo Galvão Viana; Reginaldo Alexandre Rossin; Luis Felipe Milano Teixeira; Marinho Jorge Scarpi.

Purpose: To verify the association between two different exercise intensities and the contrast sensitivity (CS). Methods: Observational study involving a sample of 16 physical activity practicing people, at least six months of exercise experience, both gender, aged 18 to 41 years, no physical nor eyeball injury. The sample was divided into three groups: the first with physical level referring to 65% (EF1) of the maximum heart rate, the second referring to 90% (EF2) and the third was the control group (CO). The physical exercise was performed on a treadmill and the exercise magnitude was determined according to Karvonen equation. The selection of in which group each subject would be included in was made randomly. The CS was measured through the Optec 6500 Stereo Optical device set at frequency 1,5, 3, 6, 12 and 18 cycles per degree (cpd) in two situations: at rest – before the beginning of the physical exercise; and right after the end of the pre-established volume of 2 km. In both stages the CS test was conducted onto right and left eyes. Statistical analysis was obtained through "t" test of paired student. Results: In the EF1 group the 12 and 18 cpd frequency scores had a significant increase in the right eye and the 12 cpd in the left eye. In the EF2 group the increase was significant in all the frequency scores in the right eye and in the 6 and 12 cpd in the left eye. Conclusion: There was a slightly improvement in the contrast sensitivity specially among the highest frequencies. This improvement reported by EF2 indicates that it might be higher interference in the CS following the most intense physical activity protocol.

Keywords: Physical activity, contrast sensitivity, exercise intensity, sports ophthalmology.