

Lab 8 : The Eye

Averted Vision -- (Additional Lab Exercise)

- Read the following web link: http://en.wikipedia.org/wiki/Averted_vision

- * Go outside at night and find a dark place to sit and look up at the night sky. (Dark, meaning not under a streetlight, not beside of a house light, etc., but preferably in total darkness). Look up at the stars, letting your eyes slowly scan the night sky. Describe what you see (just bright stars, any faint stars? etc.).

Now, spend 15-20 minutes in the dark, to allow your vision to switch from cone-response (photopic, day vision) to rod-response (scotopic, or night vision). This is the process by which your eyes become dark-adapted.

- * Once you are dark-adapted, again scan the night sky and describe what you see (do you now see more faint stars than before?).
- * Look directly at a faint star. What happens? Why? Where does the image of this star fall on your retina?
- * Use averted vision to look at this same faint star. (To make things easier, cover one eye and look with the other one). Do you now see the star? Why? Where does the image of this star fall on your retina?