

Design Building Workshop
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It is not the strongest of the
species that survives, nor the
most intelligent. It is the one most
adaptable to change.

Charles Darwin

Role of the Low Vision Specialist

- To enable the visually impaired individual to adapt using different strategies:
- Modifying LIGHT / GLARE
- Modifying CONTRAST
- Modifying SIZE / MAGNIFICATION
- Modifying BEHAVIOR

Normally sighted individuals often experience a visual impairment

- **GLARE:** oncoming headlights, sun low on horizon
- **LIGHT:** menus in a romantic restaurant, finding one's seat in a movie theatre
- **CONTRAST:** judging the edge of a step, reading a poor photocopy
- **SIZE:** print on disclaimers and the back of a medicine bottle

How is being visually impaired or legally blind different from being totally blind?

- Range of vision in visually impaired varies from 20/20 to 20/?
- May not need a white cane
- Usually make normal eye contact
- Thickness or absence of glasses is NOT an indicator of the level of vision loss



Sidewalk as seen by well sighted



Sidewalk as seen when there is a loss of contrast sensitivity



The typical brick staircase



Note how much harder it is to see the edge of the steps when there is contrast loss.



Street signs and information banners



As seen by a visually impaired individual



A face as seen when the background
is brighter than the object



Same face seen by someone with low vision



Well designed steps with yellow edges

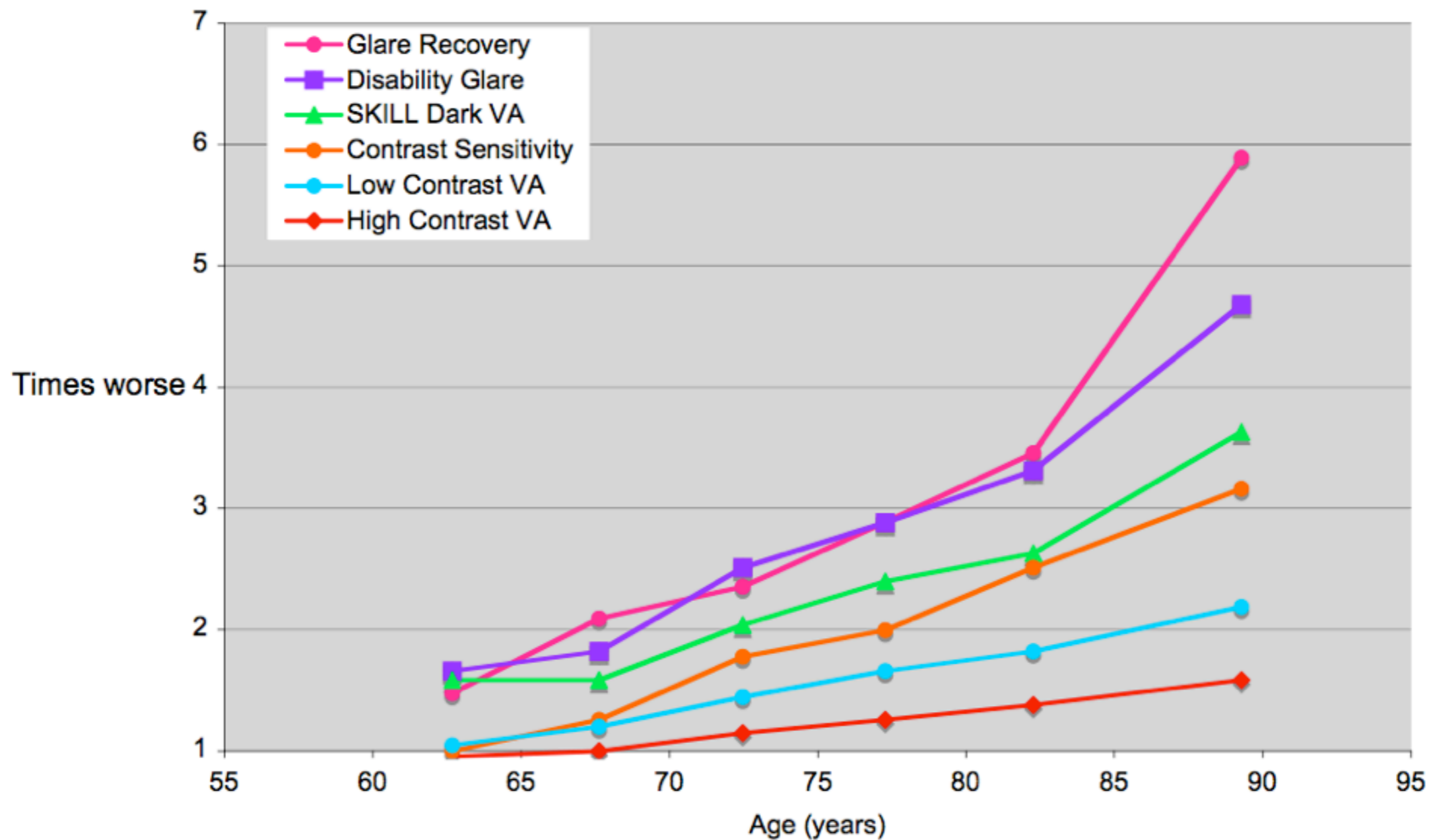


Yellow Edges are still visible under
Low Contrast

Impact of Glare, Contrast and Vision Impairment in Elderly

- Study done at Berkeley School of Optometry
- Followed 900 patients ages 58 to 102
- All were “normally” sighted 20/40 or better
- Measured vision under various conditions of contrast and glare

Times worse than young for those with 20/40 or better visual acuity



Summary

- Visually impaired individuals can have a range of vision loss
- Even the elderly with “good” measurable vision are impacted by visual impairments
- Modification of light, contrast, glare and size are the most important strategies currently used to help these individuals