

Table 2.3 The WHO classification of vision (after Tielsch et al, 1990)

Category	Grade	Criteria
Normal vision	0	20/25 or better
Near normal vision	0	20/30 to 20/60
Low vision		
Moderate visual impairment	1	20/70 to 20/160
Severe visual impairment	2	20/200 to 20/400
Blindness		
Profound visual impairment	3	20/500 to 20/1000 or a visual field less than 10°
Near-total visual impairment	4	Worse than 20/1000 or a visual field less than 5°
Total visual impairment	5	No light perception

The prevalence of low vision and blindness increases dramatically after 70 years of age (Table 2.4) The four most common causes of low vision in developed countries are cataract, macular degeneration, glaucoma and diabetic retinopathy.

Table 2.4 Percentage prevalence of blindness and low vision for different age groups and races. In this case, blindness is defined as a visual acuity of 20/200 or worse, and low vision is defined as a visual acuity of from 20/40 to 20/200 (after Tielsch et al, 1990)

Age range (years)	Blindness (Caucasian)	Blindness (Afro-American)	Low vision (Caucasian)	Low vision (Afro-American)
40–49	0.6	0.6	0.2	0.6
50–59	0.5	0.7	0.7	1.3
60–69	0.2	1.6	1.1	3.4
70–79	0.6	2.9	5.2	8.1
80+	7.3	8.0	14.6	18.0

Cataract is an opacity developing in the lens. The effect of cataract is to absorb and scatter more light on passage through the lens. This results in reduced visual acuity and increased contrast thresholds over the entire visual field, as well as greater sensitivity to glare.

Macular degeneration occurs when the macular, which covers the fovea, becomes opaque. An opacity immediately in front of the fovea implies a serious reduction in foveal vision so seeing detail becomes difficult if not impossible. However, peripheral vision is unaffected so the ability to orient oneself in space and to find ones way around is little changed.