

Three Component Model of Vision, Part One: Visual Integrity

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The Three Component Model of Vision that will be described in Chapters Three through Five consists of three components:

1. Visual integrity (visual acuity, optics of the eye, and eye health)
2. Visual efficiency (accommodation, binocular vision, and eye movements)
3. Visual information processing (visual spatial, visual analysis, and visual motor integration skills)

Visual integrity, discussed in this chapter, involves the ability to see clearly at all distances and deals with the optical system and eye health.

Visual Acuity

Definition

Visual acuity is a measure of the resolving power of the eye. Because visual acuity testing is so popular, most people are familiar with the concept of 20/20 visual acuity. An individual with 20/20 acuity is considered to have normal ability to see small detail at the distance tested. The numerator refers to the testing distance at which the subject recognizes the stimulus, and the denominator refers to the distance at which the letter being viewed could be identified by a patient with normal visual acuity. For example, 20/100 suggests that a patient with normal visual acuity could identify the letter presented at a distance of 100 feet. The actual individual being tested could only see this letter at 20 feet, indicating that the visual acuity is reduced relative to the normal finding. In traditional vision screenings, visual acuity below the level of 20/30 to 20/40 is considered cause for referral. However, clinically, any deviation from 20/20 is considered a problem, and, in the course of the vision evaluation, the clinician must determine the basis for the loss of visual acuity.