

4. The complex nature of job performance means that cognitive ability tests need to be supplemented with other selection measures.
5. There is more to intelligence than what is measured by a standard cognitive ability test.

Given such prominent advantages and disadvantages, cognitive ability tests are here to stay, as is the controversy over their use.

Other Types of Ability Tests

Following the earlier classification of abilities into cognitive, psychomotor, physical, and sensory/perceptual, and having just reviewed cognitive ability tests, we now consider the other types of ability tests.

Psychomotor Ability Tests. Psychomotor ability tests measure the correlation of thought with bodily movement. Involved here are processes such as reaction time, arm-hand steadiness, control precision, and manual and digit dexterity. An example of testing for psychomotor abilities is the test used by the city of Columbus, Ohio, to select firefighters. The test mimics coupling a hose to a fire hydrant, and it requires a certain level of processing with psychomotor abilities to achieve a passing score. Some tests of mechanical ability are psychomotor tests. The *MacQuarrie Test for Mechanical Ability* is a 30-minute test that measures manual dexterity. Seven subtests require tracing, tapping, dotting, copying, and so on.

Physical Abilities Tests. Physical abilities tests measure muscular strength, cardiovascular endurance, and movement quality.⁴⁹ An example of a test that requires all three is the test given to firefighters in the city of Milwaukee, Wisconsin. The test measures upper-body strength (bench press, a lat pull-down, and grip strength pressure), abdominal strength (sit-ups), aerobic endurance (five-minute step tests), and physical mobility (roof ladder placement).⁵⁰

Physical abilities tests are becoming increasingly common to screen out individuals susceptible to repetitive stress injuries, such as carpal tunnel syndrome. Physical abilities tests may also be necessary for equal employment opportunity (EEO) reasons.⁵¹ Although female applicants typically score 1.5 standard deviations lower than male applicants on a physical abilities test, the distributions of scores for male and female applicants overlap considerably. Therefore, all applicants must be given a chance to pass requirements and not be judged as a class. Another reason to use physical abilities tests for appropriate jobs is to avoid injuries on the job. Well-designed tests will screen out applicants who have applied for positions that are poorly suited to their physical abilities. Thus, fewer injuries should result. In fact, one study using a concurrent validation approach on a sample of railroad workers found that 57% of all injury costs were due to the 26% of current employees who failed the physical abilities test.⁵²