



1-D Objective Function Testing

Purpose:

Objective function testing of the lower extremity aids in determining functional limitations of the knee joint during sports activities.

Selection of Questions:

Four one-legged function tests comprise the objective function testing:

1. Single hop (distance)
2. Cross-over hop (distance)
3. Triple hop (distance)
4. Timed hop

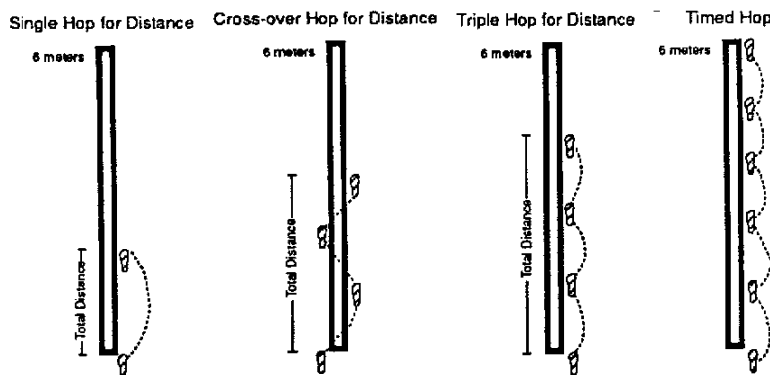
Materials Needed:

1. One stopwatch
2. One tape measure
3. Standard marking tape

Test Descriptions:

1. Single hop (distance)	The distance a patient travels in one hop on a single leg is recorded. Each patient is allowed one trial for each leg, and then performs two hops per leg.
2. Cross-over hop (distance)	A six meter line six inches wide is marked with tape. The patient performs three hops on one leg, criss-crossing the line with each hop. Each test is completed twice on each leg, with the total distance hopped measured.
3. Triple hop (distance)	The patient performs a series of three hops on one leg, with the total distance hopped measured. The test is performed twice on each leg
4. Timed hop	Measure a distance of six meters, marking start and finish lines with tape. A technician stands at the finish line to time the subjects with a stopwatch. At the word "go", the patient begins a series of one-legged hops from the starting line to the finish line. Patients are encouraged to use large forceful hopping motions, not a series of small hops, to complete the course. Each patient completes a slow trial on each leg. A series of two tests per leg are then completed. Two tests are first completed on the non-involved leg, followed by two tests on the involved leg.

The mean is taken from the two tests performed on each leg. Then, the percent deficit between limbs is calculated.



Source/Verification of Data:

Quantitative data is obtained at the time of testing by a trained technician.

Data Analysis/Reporting of Results:

Results are reported by first calculating averages for each subject for all tests. The resultant deficit is calculated by figuring the difference between the involved and non-involved limbs.