

Corbett Targeted Coin Test (CTCT) - Instructions for Use

The **Corbett Targeted Coin Test** is an In-Hand Manipulation test. It requires movement of coins from the palm to fingertips of the same hand before inserting the coins vertically, obliquely or horizontally into a strategically designed pattern of slots. The test requires more complex visual-motor skills, differential tendon glide, and proprioceptive coordination than other pegboard tests.

Contents

The **Corbett Targeted Coin Test** has a box and a fitted lid with 16 multi-directional slots oriented in four rows. 20 coins (not included) can be stored inside the box for easy access.

Recommended Testing Accessories

Stopwatch, timer, ruler, coins measuring 0.75" in diameter (pennies recommended), finger goniometer or finger flexion gauge, normal and light touch sensory monofilaments.

Participation Criteria

In order to qualify for this test, participant must be able to do the following:

1. Exhibit light touch sensation according to the sensory monofilament test.
2. Complete active fist closure to the palm.
3. Have the ability to pick up 20 individual coins from a tabletop and store them in the palm of the same hand without assistance.



Testing Procedure

The participant should be seated comfortably at normal table height (approximately 30"). Have the participant gather 20 coins in palm of hand from the tabletop using only the hand that's being tested. Have the participant hold the coins scattered in palm of hand and not in a roll (see picture). Hand holding the coins should be placed on the tabletop directly in front of the participant's body with the elbow flexed at 90° and the forearm and wrist in neutral positions.



The participant's other hand should be placed on his or her lap. The **Corbett Targeted Coin Test** box should be placed within 1" of the closed palm in line with the participant's hand to be tested. Your participant is now in the "Ready Position."

Explain the test to your patient (should be read as a script)

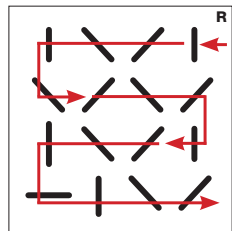
"The **Corbett Targeted Coin Test** is a test to see how well you can hold 20 coins in your palm and move one coin at a time from your palm to your thumb and fingertips of the same hand and accurately target a single coin into one of the 16 sequential slots without dropping any coins."

"If you drop or mis-target a coin, move onto the **next** coin in your palm and attempt placement in the **next** slot. Do not pick up dropped coins from lid. You have extra coins in your palm for this reason. If coins slip out of your palm, it will be noted in the scoring sheet under accuracy measurement. Your speed for task completion will be recorded. You will be given an opportunity to practice before the test is timed and scored."

"When I say BEGIN, place coins into the top row starting at the side corresponding with the hand holding the coins, right or left as noted on the lid. Do not skip any slots. Drop down to the next row and reverse direction. Continue until you have attempted to insert coins into all 16 slots (each slot can only be attempted once). The test is complete after you either attempt all 16 slots, run out of coins, or 2 minutes have elapsed."

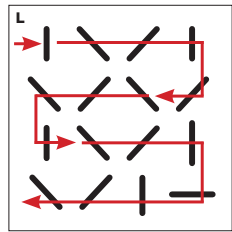
Right Hand Testing - Use Specific Lid Side

Coins are placed in slots moving RIGHT TO LEFT starting in the upper right corner slot. At the end of the top row, drop down to the next row and reverse direction, inserting coins left to right. Continue in this pattern. The last slot is in the lower right corner.



Left Hand Testing - Use Specific Lid Side

Coins are placed in slots moving LEFT TO RIGHT starting in the upper left corner slot. At the end of the top row, drop down to the next row and reverse direction, inserting coins right to left. Continue in this pattern. The last slot is in the lower left corner.



Scoring the Test

Use the **Corbett Targeted Coin Test** scoring sheet to collect/record data. Before starting a test, ask the participant if he has any questions. The participant is allowed one practice test.

Four values will be recorded and calculated.

1. **Speed** - Record the length of time to complete the test (in seconds). Test is complete when either all 16 slots are attempted, the participant has run out of coins, or 2 minutes have elapsed.
2. **Accuracy** - Record the number of "dropped" or "mis-targeted" coins. Each coin "dropped" or "mis-targeted" is added as a 5 second penalty.
3. **Quality of Performance (QP)** - Sum of speed (value 1) and accuracy (value 2) in seconds.
4. **% Change from Initial Test** - $\frac{[(\text{Initial Test Quality of Performance} - \text{Follow-Up Test Quality of Performance}) \div \text{Initial Test Quality of Performance}] \times 100}{1}$ = percentage change from initial test.

Using a stopwatch, start the clock after you tell your participant to begin. Stop the clock when either the last slot on the box is attempted, the participant has run out of coins, or 2 minutes have elapsed. Note the amount of coins mis-targeted during the test. Repeat the test with the other hand.

Corbett Targeted Coin Test - Scoring Sheet

Four values will be recorded and calculated.

1. **Speed** - Record the length of time to complete the test (in seconds). Test is complete when either all 16 slots are attempted, the participant has run out of coins, or 2 minutes have elapsed.
2. **Accuracy** - Record the number of "dropped" or "mis-targeted" coins. Each coin "dropped" or "mis-targeted" is added as a 5 second penalty.
3. **Quality of Performance (QP)** - Sum of speed (value 1) and accuracy (value 2) in seconds.
4. **% Change from Initial Test** - $[(\text{Initial Test Quality of Performance} - \text{Follow-Up Test Quality of Performance}) \div \text{Initial Test Quality of Performance}] \times 100$ = percentage change from initial test.

Using a stopwatch, start the clock after you tell your participant to begin. Stop the clock when either the last slot on the box is attempted, the participant has run out of coins, or 2 minutes have elapsed. Note the amount of coins mis-targeted during the test. Repeat the test on both hands.

Patient ID # _____ Hand DX: R / L _____
Dominant Hand R / L Male / Female Occupation: _____ Age: ____ Hand Span: ____ in. / cm.

Initial Test Date ____ / ____ / ____

Speed + **Accuracy** = **Quality of Performance (QP)**

Test Time # of Dropped Coins x 5 sec Speed + Accuracy

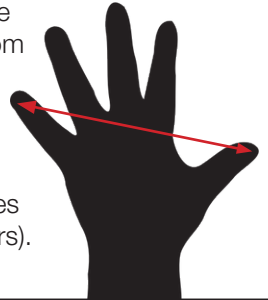
Right Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Left Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Observation Notes: _____

Hand Span

Measure the distance from the tip of the thumb to the tip of the little finger (inches / centimeters).



Follow Up Test Date ____ / ____ / ____

*A positive percentage indicates improvement

Speed + **Accuracy** = **Quality of Performance (QP)**

Test Time # of Dropped Coins x 5 sec Speed + Accuracy

Right Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Left Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Observation Notes: _____

% Change from Initial Test

$\frac{(\text{Initial Test QP} - \text{Follow Up Test QP})}{\text{Initial Test QP}} \times 100$

_____ %

_____ %

Follow Up Test Date ____ / ____ / ____

*A positive percentage indicates improvement

Speed + **Accuracy** = **Quality of Performance (QP)**

Test Time # of Dropped Coins x 5 sec Speed + Accuracy

Right Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Left Hand _____ sec _____ x 5 sec = _____ sec _____ sec

Observation Notes: _____

% Change from Initial Test

$\frac{(\text{Initial Test QP} - \text{Follow Up Test QP})}{\text{Initial Test QP}} \times 100$

_____ %

_____ %

Observation Notes: (fine and gross motor strategies)

- Extraneous proximal upper extremity compensatory active range of motion (AROM), for example: shoulder abduction
- Forearm supination for organizing coins into position
- Use of gravity with palm down or pronated forearm
- Dropping coins from ulnar fist