

Titmus Stereo Test Instructions

The purpose of this test is to measure how minutely the two eyes can discern differences in the distances of objects from the observer. Other depth determinants such as size, overlapping, perspective, etc. must be excluded to demonstrate the integrity of the fusion mechanism.

Three tests are presented for use under different circumstances.

1. The House Fly establishes the presence of gross stereopsis for all patients. It is especially useful for young children who may have difficulty understanding instructions.
2. The series of animals, from which a forward-appearing one is selected, facilitates the testing of the younger children whose visual systems have not fully developed.
3. The circle patterns provide a finely graded sequence for critical testing.

To administer, polarized viewers must always be worn over glasses, if used. For the bifocal wearer, position the test properly for near-point viewing.

Target Presentation: The booklet should be held in the normal upright position 40cm. from the patient's face.

Patient/Examiner Position: The patient is seated upright. The patient should wear polarizing spectacles over the habitual correction during the testing procedures. Hold the picture straight before the patient to maintain the proper axis of polarization. Although the graded tests are standardized for 16 inches, minor variations in distance will have little effect on the score. For the bifocal wearer, the test should be properly positioned for near-point viewing. The examiner is seated directly in front of the patient so that both the patient's eyes can be viewed simultaneously.

Illumination: The room lights should be on. The unit light should be positioned behind patient's head but directed over the patient's shoulder to illuminate the booklet without shadows (800 lux) or reflections.

Procedure:

1. Start with the fly. Ask the patient to pinch the fly's wings. The patient's gesture should be in front of the test booklet. If (s)he touches the booklet, then wiggle or move the picture back and forth. Record that target movement was necessary to achieve the appropriate response. If movement does not help, do not proceed; this patient does not have gross stereopsis. To determine if one eye is being suppressed, instruct the patient to look at the bottom of the page. If the circle and the square (or the "R" and the "L") are not both seen, then the one not seen corresponds to the suppressed eye.
2. If the patient is a young child or if you had to wiggle the fly for an adult, proceed with the animals. Ask the patient to identify the animal in each row that is "jumping off the page." If the patient misses two in row, stop. It is unnecessary to use the animals with adults who are successful at the fly; go directly to the circles.
3. Start with Plate #1. Ask the patient to indicate which circle seems to come out closer to him/her. Continue through to Plate #9 until the patient gives up trying or makes two successive mistakes. If (s)he misses one, but gets the next more difficult one, go back and have him/her try the missed one again to determine if (s)he can achieve this level of stereoscopic discrimination, or just guessed the following one.
4. If (s)he continues through to number 9 without any mistakes, move the booklet back to 80cm. and start at Plate #6 and progress as far as possible towards Plate #9.
5. Close the book and store in a light-free, dry environment.

Sample Patient Instructions: "At the top of the left page there are 9 plates each with four rings (circles, doughnuts) on it. Which ring on Plate #1 seems to be closer to you? Is it the top one, left one, right one, or the bottom one? On Plate 2? 3? 4? 5? 6? 7? 8? 9?"

Recording:

1. If the patient can correctly pinch the fly's wings above the page, but can do nothing else on the test, record Gross Stereopsis, the testing distance and the name of the test, "Titmus Stereo Test".
2. Record the lowest seconds of arc seen. If the patient reached Plate #9, record "At least 40sec. of arc, the testing distance, and "Titmus Stereo Test." Because this test can test no lower than 40sec., the words "at least" must be used. If the patient is unable to reach Plate #9 correctly, then simply record the lowest seconds of arc seen correctly, the testing distance, and the name of the stereo test.

Key to Figures on Titmus Stereo Test

ROW	Correct Answer	Angle of Stereo at 40 cm
A	Cat	400 sec
B	Rabbit	200 sec
C	Monkey	100 sec

Plate	Correct Answer	Angle of Stereo at 40 cm
1	Bottom	800 sec
2	Left	400 sec
3	Bottom	200 sec
4	Top	140 sec
5	Top	100 sec
6	Left	80 sec
7	Right	60 sec
8	Left	50 sec
9	Right	40 sec

Plate	Correct Answer	Angle of Stereo at 80 cm
6	Left	40 sec
7	Right	30 sec
8	Left	25 sec
9	Right	20 sec