

### Indications:

Use the Touch Test® Two-Point Discriminator to clinically determine sensation after a nerve injury or repair, to diagnose possible nerve injury or compression, or to establish baseline nerve status before and after surgical intervention. To adequately evaluate hand function, both tests described below should be done to assess the slow and fast fiber/receptor nerve systems. This tool can also be used as part of a sensory re-education program by the patient to check progress at home with the assistance of a caregiver as the tester.

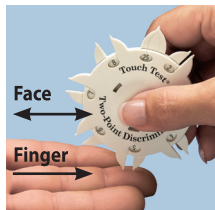
The Touch Test® Two-Point Discriminator is made of two plastic disks joined together. The outer points are all the same length and have the same rounded tips with the same diameter. To change the distance between the points, rotate the two disks in opposite directions.

### A. Static Two-Point Discrimination:

This test evaluates the innervation density of the slowly adapting fiber/receptor system. It is considered the classic method of determining functional touch sensibility since it is generally acknowledged to relate to the ability to use the hand for fine motor tasks. Winding a watch requires 6 mm of two-point discrimination, holding precision tools requires 12 mm and gross tool gripping requires 15 mm (but with reduced speed and skill). Results give an indication of hand function requiring precision sensory grip and constant touch, like holding a pen.

### Instructions For Static Two-Point Discrimination:

1. Place hand fully supinated. Occlude eyes.
2. Begin by setting **5mm** distance between the two points.
3. Align the Discriminator's face (and the points) with the length of the finger.
4. Apply one or both points to the fingertip for at least three seconds in a random manner. Pressure must be consistent in all testing areas and stop just at the point of blanching. Pause between tests to avoid patient fatigue.
5. Four out of seven responses must be accurate for scoring. Interpretation of scores is based on guidelines set by the American Society for Surgery of the Hand. (See below.)
6. If responses are inaccurate, increase the distance between the points and repeat the test until accuracy is achieved.
7. Stop testing at 15 mm. If distance is greater than 15 mm, test and compare the middle or proximal phalanx sensation to the untestable, thinner tip of the finger. This can be done to help assess the ability of the finger (not the fingertip) to perform gross grasp.



### Static Two-Point Discrimination Norms:

Normal:	less than 6 mm
Fair:	6 to 10 mm
Poor:	11 to 15 mm
Protective:	One point perceived
Anesthetic:	No points perceived

### B. Moving Two-Point Discrimination:

This test is used to evaluate the innervation density of the quickly adapting fiber/receptor system. Since fingertip sensibility is highly dependent on motion, the stimulus for discrimination testing should be moving. Use this test to assess hand function requiring moving touch, like buttoning and other fine manipulative finger tasks. Moving two-point discrimination returns earlier than static two-point discrimination after nerve laceration. Moving two-point discrimination nears normal two to six months before two-point static discrimination.

### Instructions For Moving Two-Point Discrimination:

1. Place hand fully supinated. Occlude eyes.
2. Set the points at a distance of **8 mm**.
3. Position the Discriminator's face (and the points) so that it is perpendicular to the length of the finger.
4. Apply both points at the DIP joint and slowly move them distally to the fingertip. Pressure used should be just light enough so that the patient can appreciate the stimulus and respond without hesitation.
5. As the points are dragged distally along the skin, instruct the patient to continually identify whether one or two points are perceived.
6. Testing is stopped at 2 mm, which represents normal moving two-point discrimination.



### Care Instructions

1. Clean points with disinfectant if desired.
2. Plastic disks can be wiped with soap and water.

### References

James Hunter M.D., Evelyn Mackin P.T. and Anne Callahan M.S., O.T.R./L, C.H.T., *Rehabilitation for the Hand: Surgery and Therapy*, Vol. I, 4th ed. (St. Louis: Mosby, 1995), pp. 146-148.

A. Lee Dellon, *Somato Sensory Testing and Rehabilitation*, (Bethesda: AOTA, 1997), pp. 118-121.

### NC12776 Touch Test® Two-Point Discriminator