



Two point discriminator

Two-point discrimination is the ability to discern that two nearby objects touching the skin are truly two distinct points, not one. It is often tested with two sharp points during a neurological examination and reflects how finely innervated an area of skin is. Two-point discrimination is a reliable and widely used technique for determining tactile gnosis. It relies on the ability and/or willingness of the patient to subjectively report what s/he is feeling and should be completed with the patient's eyes closed. In order to test for two-point discrimination, the therapist will use a special pair of calipers (or reshaped paperclip). The therapist will alternate (randomly) between touching the patient with one point or with two points on the area being tested (e.g. finger, arm, leg, toe). The patient will then be asked to report back what s/he felt (one or two points). The smallest distance between two points at which the patient can still distinguish as two separate stimuli and not one, is recorded. Each extremity should be tested and compared side to side for discrepancies.

The smallest and most dense sensory units are located in those areas that have the greatest somatosensory cortical representation. Normally, a person should be able to recognize two points separated by as little as 2-4 mm on the lips and finger pads, 8-15 mm on the palms and 30-40 mm on the shins or back (assuming the points are at the same dermatome). The posterior column-medial lemniscus pathway is responsible for carrying information involving fine, discriminative touch. Therefore, upon damage to this pathway, two-point discrimination can be impaired.