

lightly on one shoulder balance is preserved after swaying. If there is damage to tracts carrying information back up the spinal cord in the dorsal columns, the student will have to take a step to stop from falling over. In patients in whom there is such damage, information from the muscles about the body's position in space is missing and the student starts to fall when pushed. Remember there is no visual information, and the information from skin sensations is minimal because he is standing. Assuming that the vestibular information from the inner ear is normal (it can be tested separately) the only other information is proprioceptive from muscles. Loss of the proprioceptive information is known to produce an abnormal Romberg's test even in the presence of normal vestibular information from the inner ear.

Chapter 7.

10. Deep Tendon Reflexes.

This tests the muscles, their connections to the spinal cord and the spinal cord processor. It is illustrated on page 32 near the end of the chapter. Seat the student on a chair and cross the legs. Tap the patellar tendon which is just below the knee cap. The edge of the ruler will do just fine. The knee will jerk forward. In most people who are tense it will be difficult to elicit this response first time. Have them clench their teeth, pull their hands apart and look upwards. This will augment the reflex. It should be possible to see contraction of the quadriceps muscle above the knee. This reflex involves the receptors in the quadriceps muscle and tendon, information travelling back to the spinal cord, and synaptically activating the motor neurons within the spinal cord that connect to the muscles. It is said to be monosynaptic because it can be elicited by impulses crossing one