

extreme flexion and extension, and keep the wrist in a neutral position (Biundo & Rush, 2011).

Splints also help decrease pressure on the median nerve which decreases pain as well.

A cortisone injection into the carpal tunnel area is often helpful in relieving pain symptoms for weeks to months and can be used multiple times (Biundo & Rush, 2011). If all other treatments for CTS fail, and symptoms are still visible, surgery is used to open the carpal tunnel and relieve the pressure on the median nerve (Biundo & Rush, 2011). “If and when signs and symptoms of the condition have resolved, strengthening the forearm/hand musculature should be recommended” (Muscolino, 2011).

If conservative manual therapy care is not successful, a person suffering from CTS should be referred to a physician (Muscolino, 2011). A physician should be referred to anyone with CTS, because “long standing pressure on a nerve can result in death of neurons, with consequent permanent sensory and/or motor loss” (Muscolino, 2011). Damaged neurons can regenerate, but neurons that die cannot be replaced (Muscolino, 2011).

Future Directions

“The National Institute of Neurological Disorders and Stroke conducts research on nerve-related conditions such as carpal tunnel syndrome in its labs at the National Institutes of Health” (2011). Current studies include evaluations of the effectiveness of education interventions in reducing or preventing CTS (“National Institute”, 2011). Scientists are also investigating the use of alternative therapies to prevent, reduce, and treat CTS (“National Institute”, 2011).

Another study is currently being done to evaluate long-term effects of conservative treatment involving ultrasound therapy, kinesiotherapy and massage therapy (Kwolek & Zwolińska, 2011). Provocation tests are being used and sensory impairments, and autonomic disturbances are being investigated (Kwolek & Zwolinska, 2011). Tests are also being conducted before and during