JRRD at a Glance

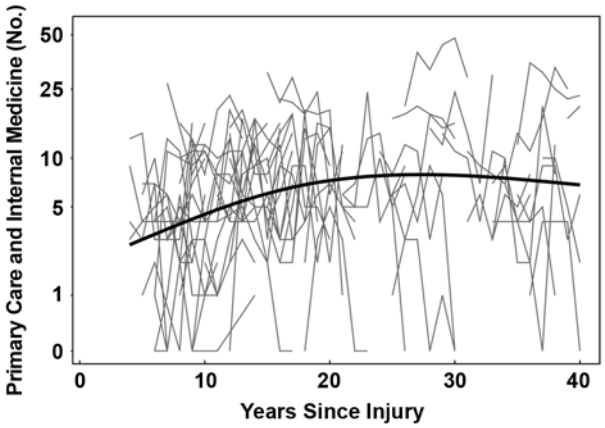
Characteristics of Veterans Health Administration chiropractors and chiropractic clinics

Anthony J. Lisi, DC, et al.

The Veterans Health Administration (VHA) has recently added chiropractic services at a number of medical facilities throughout the country. This study is a first step in understanding how these services are working. We used a Web-based survey to question all chiropractors in the VHA. The responses showed that most chiropractors are similar in the types of examination and treatment procedures that they use. Most of the patients seen by chiropractors were sent by their primary care providers. The most common problem that these patients had was low back pain or neck pain.

Description of outpatient utilization and costs in group of veterans with traumatic brain injury

Beeta Y. Homaifar, PhD, et al.



Planning appropriately for the medical needs of veterans with traumatic brain injury (TBI) is a difficult task. A great deal of research exists regarding how much acute care patients use and how much this care costs, but we do not know as much about the long-term healthcare needs and costs. In addition, we do not know if factors such as the severity of the TBI or the time since injury have any relationship to the long-term needs and costs. Our aim is to describe outpatient Department of Veterans Affairs healthcare use and cost for veterans who were at least 4 years postinjury.

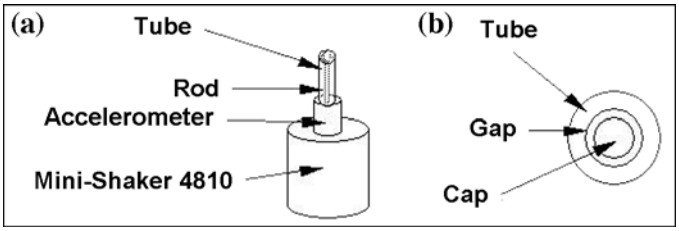
Crossed four-bar mechanism for improved prosthetic grasp

Issa A. Ramirez, MS, et al.

Veterans with upper-limb amputations may benefit from this research. We described testing done on a standard prosthetic hook and a hook with adaptations aimed at improving grasp. These hooks were compared with each other and with a normal anatomical hand. The results show that, for untrained hook users, the hooks take 2 to 3 times longer than the anatomical hand to perform simple tasks; difficult tasks may require even more time. The results demonstrate the promise of the mechanical adaptation and the importance of a high-friction surface on the end of the hook.

Vibrotactile identification of signal-processed sounds from environmental events

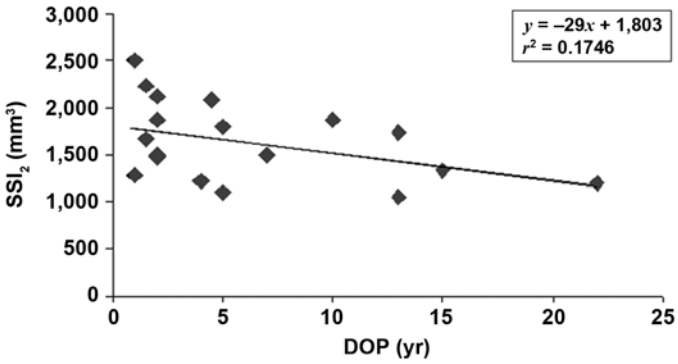
Parivash Ranjbar, PhD, et al.



People with dual sensory impairment (hearing and vision) have difficulty obtaining information about ongoing events in their environment. They can feel the sounds produced by the events if these sounds are processed to suit the sensitivity features of the skin. Three different principles (eight algorithms)—transposing, modulating, and filtering—were used to process the sounds, which were then tested by 19 subjects using a stationary vibrator. Algorithm and subject were significant factors affecting the results. Two principles of transposing and modulating were appropriate, whereas filtering was unsuccessful. The two transposing algorithms and the modulating algorithms will be used in future tests with a portable vibrator for people with dual sensory impairment.

Influence of neurological level of injury in bones, muscles, and fat in paraplegia

Yannis Dionyssiotis, MD, PhD, et al.



Paraplegia-related alterations of body composition are very important to understand. Risk of fractures due to osteoporosis and risk of other diseases such as diabetes and cardiovascular problems exist with a higher prevalence in patients with paraplegia. The increased percent of fat mass in the body and immobilization play a significant role in these problems. Research about body composition in paraplegia is very important to help us understand the pathophysiology of these diseases in paraplegia and to modify our therapeutic interventions in this specific population.

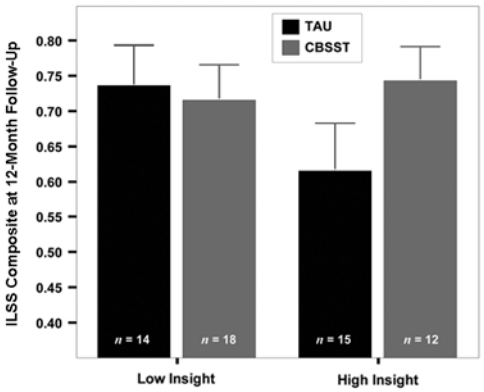
Age-associated striatal dopaminergic denervation and falls in community-dwelling subjects

Nicolaas I. Bohnen, MD, PhD, et al.

Falls are common in the otherwise nondisabled elderly population. Dopamine is a brain chemical that is important for gait and motor functions. Normal aging is associated with a significant loss of dopamine activity in the brain. Whether loss of brain dopamine may be related to falls in the elderly is unclear. Brain dopamine activity was assessed in community-dwelling subjects who filled out a fall diary for 6 months. We found no significant difference in brain dopamine activity between single-time fallers and nonfallers. However, subjects who had more than two falls tended to have lower brain dopamine activity.

Insight and treatment outcome with cognitive-behavioral social skills training for older people with schizophrenia

Lindsay C. Emmerson, PhD, et al.



This article is particularly relevant to middle-aged and older veterans with schizophrenia. Antipsychotic medications can reduce some symptoms of schizophrenia but do not specifically target psychosocial functioning. When used with medication therapy, psychosocial rehabilitation intervention can improve everyday functioning in veterans diagnosed with schizophrenia. This article specifically shows that veterans with greater awareness of their illness, as well as those with more limited awareness, can benefit from cognitive behavioral social skills training for schizophrenia.

Analyzing performance with computer access technology using unconstrained text entry protocol

Jennifer M. Smith, MS; Richard C. Simpson, PhD, ATP

Recent work in human-computer interaction has demonstrated that unconstrained text entry protocols that provide a more natural environment for research participants. We demonstrate the application of this approach to the analysis of word prediction. Eleven participants (5 nondisabled/6 with disabilities) transcribed sentences using an on-screen keyboard both with and without word prediction while time-stamped keystroke

data were collected. The subsequent analysis demonstrated that the entire input stream (including erroneous keystrokes and the keystrokes used to correct errors) can be included in the evaluation of performance with a text entry device or text entry rate enhancement method.

JRRD at a Glance

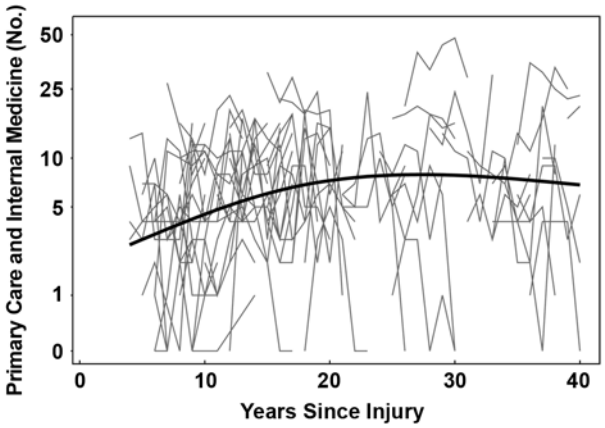
Characteristics of Veterans Health Administration chiropractors and chiropractic clinics

Anthony J. Lisi, DC, et al.

The Veterans Health Administration (VHA) has recently added chiropractic services at a number of medical facilities throughout the country. This study is a first step in understanding how these services are working. We used a Web-based survey to question all chiropractors in the VHA. The responses showed that most chiropractors are similar in the types of examination and treatment procedures that they use. Most of the patients seen by chiropractors were sent by their primary care providers. The most common problem that these patients had was low back pain or neck pain.

Description of outpatient utilization and costs in group of veterans with traumatic brain injury

Beeta Y. Homaifar, PhD, et al.



Planning appropriately for the medical needs of veterans with traumatic brain injury (TBI) is a difficult task. A great deal of research exists regarding how much acute care patients use and how much this care costs, but we do not know as much about the long-term healthcare needs and costs. In addition, we do not know if factors such as the severity of the TBI or the time since injury have any relationship to the long-term needs and costs. Our aim is to describe outpatient Department of Veterans Affairs healthcare use and cost for veterans who were at least 4 years postinjury.

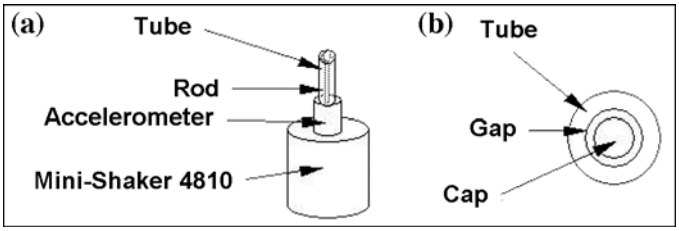
Crossed four-bar mechanism for improved prosthetic grasp

Issa A. Ramirez, MS, et al.

Veterans with upper-limb amputations may benefit from this research. We described testing done on a standard prosthetic hook and a hook with adaptations aimed at improving grasp. These hooks were compared with each other and with a normal anatomical hand. The results show that, for untrained hook users, the hooks take 2 to 3 times longer than the anatomical hand to perform simple tasks; difficult tasks may require even more time. The results demonstrate the promise of the mechanical adaptation and the importance of a high-friction surface on the end of the hook.

Vibrotactile identification of signal-processed sounds from environmental events

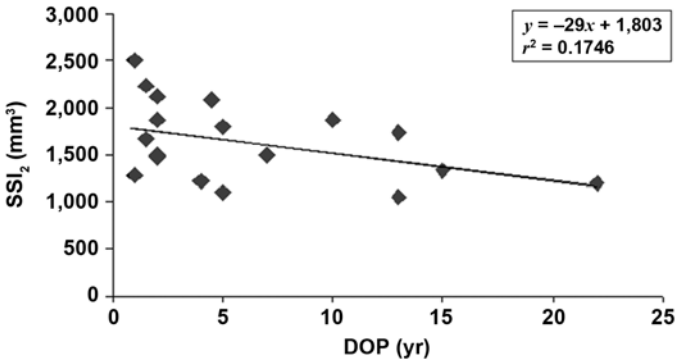
Parivash Ranjbar, PhD, et al.



People with dual sensory impairment (hearing and vision) have difficulty obtaining information about ongoing events in their environment. They can feel the sounds produced by the events if these sounds are processed to suit the sensitivity features of the skin. Three different principles (eight algorithms)—transposing, modulating, and filtering—were used to process the sounds, which were then tested by 19 subjects using a stationary vibrator. Algorithm and subject were significant factors affecting the results. Two principles of transposing and modulating were appropriate, whereas filtering was unsuccessful. The two transposing algorithms and the modulating algorithms will be used in future tests with a portable vibrator for people with dual sensory impairment.

Influence of neurological level of injury in bones, muscles, and fat in paraplegia

Yannis Dionyssiotis, MD, PhD, et al.



Paraplegia-related alterations of body composition are very important to understand. Risk of fractures due to osteoporosis and risk of other diseases such as diabetes and cardiovascular problems exist with a higher prevalence in patients with paraplegia. The increased percent of fat mass in the body and immobilization play a significant role in these problems. Research about body composition in paraplegia is very important to help us understand the pathophysiology of these diseases in paraplegia and to modify our therapeutic interventions in this specific population.

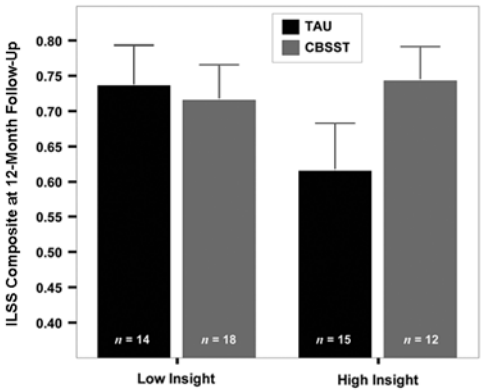
Age-associated striatal dopaminergic denervation and falls in community-dwelling subjects

Nicolaas I. Bohnen, MD, PhD, et al.

Falls are common in the otherwise nondisabled elderly population. Dopamine is a brain chemical that is important for gait and motor functions. Normal aging is associated with a significant loss of dopamine activity in the brain. Whether loss of brain dopamine may be related to falls in the elderly is unclear. Brain dopamine activity was assessed in community-dwelling subjects who filled out a fall diary for 6 months. We found no significant difference in brain dopamine activity between single-time fallers and nonfallers. However, subjects who had more than two falls tended to have lower brain dopamine activity.

Insight and treatment outcome with cognitive-behavioral social skills training for older people with schizophrenia

Lindsay C. Emmerson, PhD, et al.



This article is particularly relevant to middle-aged and older veterans with schizophrenia. Antipsychotic medications can reduce some symptoms of schizophrenia but do not specifically target psychosocial functioning. When used with medication therapy, psychosocial rehabilitation intervention can improve everyday functioning in veterans diagnosed with schizophrenia. This article specifically shows that veterans with greater awareness of their illness, as well as those with more limited awareness, can benefit from cognitive behavioral social skills training for schizophrenia.

Analyzing performance with computer access technology using unconstrained text entry protocol

Jennifer M. Smith, MS; Richard C. Simpson, PhD, ATP

Recent work in human-computer interaction has demonstrated that unconstrained text entry protocols that provide a more natural environment for research participants. We demonstrate the application of this approach to the analysis of word prediction. Eleven participants (5 nondisabled/6 with disabilities) transcribed sentences using an on-screen keyboard both with and without word prediction while time-stamped keystroke

data were collected. The subsequent analysis demonstrated that the entire input stream (including erroneous keystrokes and the keystrokes used to correct errors) can be included in the evaluation of performance with a text entry device or text entry rate enhancement method.