	Adult Neurology		Pediatric Neurology	Managing Partner
	Reed C. Perron, MD	John T. Nasr, MD	Peter L. Heilbroner, MD, PhD	Hugo N. Lijtmaer, MD
NEUROLOGY	Hugo N. Lijtmaer, MD	Amrit K. Grewal, MD	Jennifer A. Cope, MD	
GROUP OF	Daniel R. Van Engel, MD	Olga Noskin, MD	Alexis M. Dallara-Marsh, MD	Chief Operations Officer
BERGEN	Kenneth A. Levin, MD	Yamini Naidu, MD	Mitchell Steinschneider, MD, PhD	David T. Contento, FACMPE
COUNTY, P.A.	Kenneth A. Citak, MD	Daniel Berlin, MD, MSc	Heather Weiner, APN	
	James T. Shammas, MD	Fumin Tong, MD, PhD	Neuro Rehabilitation Center	
www.neurobergen.com	Susan P. Molinari, MD	Elena Zislin, PA-C	Kenneth A. Citak, MD	John Jensen, PT
			Medical Director	Director of Rehabilitation

## **Concussion**

Concussion is a form of mild traumatic brain injury. It can occur with direct trauma to the head or even trauma to other parts of the body with an associated force transmitted to the head. Concussion results in the fairly rapid onset of cognitive impairment.

Symptoms of concussion can include mental fogginess, confusion, inattention, dizziness, memory problems, and headaches. These symptoms are thought to be a result of trauma-induced tensile forces on the wires that interconnect the brain. Disruption of these wires can impair processing networks in the brain. Some patients with concussion can not form new memories for hours after impact. Most cases of concussion do not involve loss of consciousness, but loss of consciousness can occur in about 10 percent of patients with concussion. Signs of concussion are not typically seen on standard CT scan or MRI imaging, but in certain cases such imaging is necessary to evaluate for other anatomical abnormalities that may have resulted from trauma. In some cases, additional testing such as Electroencephalography (EEG), Computerized Cognitive Testing and/or Neuropsychological Testing are done to better understand the effects of the concussion. Treatment for concussion generally consists of cognitive and physical rest with a gradual return to usual activities.

Post-concussive syndrome consists of a constellation of symptoms including inattention, dizziness, and headache which usually last for days or weeks after a concussion. Rarely, the symptoms last for months or longer. Treatment is usually symptomatic and can consist of medications and physical therapy.