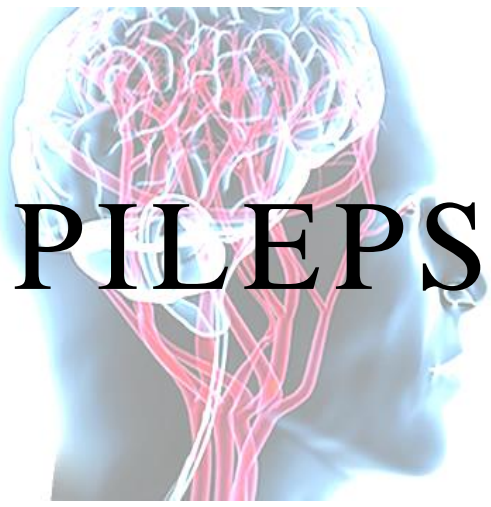


EPILEPSY



SERVICES PROVIDED BY NEUROPSYCHOLOGISTS FOR PATIENTS WITH EPILEPSY:

1. Neuropsychological Examination (NPE):

An NPE assesses the variety of cognitive deficits that can exist in epilepsy by a broad battery of tests with demonstrated sensitivity to cognitive brain dysfunction.

- Although intelligence tests can be helpful, they were originally designed to predict performance in school and are not systematically designed to reflect adequacy of cognitive brain functions.
- Neuropsychological tests present a far more adequate solution since they have been shown to be sensitive to brain-related deficits and have been assembled to reflect the broad range of cognitive brain functions.
- The NPE can define a neuropsychological rehabilitation program.

2. Medical Adjustment CounselingSM (MACSM)

3. Biofeedback

4. Cognitive Rehabilitation

5. Psychoeducational Family Services

The goal of this brochure is to inform and increase awareness of the application of neuropsychological services in the treatment of Epilepsy.

Neuropsychology is the profession that treats patients having sustained some injury to their brain with a corresponding change in thinking abilities and personality. Furthermore, neuropsychology is the relationship between the brain and its functional expression through our daily behaviors.

Epilepsy is a prevalent disorder, affecting 1% of the population or approximately 3,000,000 Americans. Epilepsy can occur at any age, but usually in childhood and older age, with severity ranging from mild to severe. Epilepsy may affect a patient's thinking and behavior. Furthermore, medication used for seizure control may also affect cognitive thinking and the behavior of the patient. This has far-reaching implications upon adjustment to everyday life and also school/work.

Neuropsychology's Place in Epilepsy

Neuropsychology can demonstrate the many ways in which epilepsy may affect thinking and behavior by using the **neuropsychological examination (NPE)**. Practitioners need to be informed of the **cognitive/thinking** and **psychological/behavioral** consequences of the various epilepsy syndromes. There are often behavioral disturbances and cognitive difficulties associated with this conditions on multiple levels. For example, mood disorders in epilepsy are common, under-recognized, under-treated, and associated with increased general health care utilization. A neuropsychologist is able to identify these **psychological conditions**, treat them, make recommendations, and share this information with the physician, who can prescribe appropriate medications. The neuropsychologist can help by taking steps to decrease the additional psychosocial burden of experiencing a seizure in school or in the workplace by educating patients and families about possible effects on thinking and behavior. The neuropsychologist can help the professional and public community regarding the lack of awareness of both the cognitive/thinking and behavioral consequences of epilepsy and its treatment. Lack of awareness is surprisingly widespread.

NPEs Done in Connection with Surgery for Epilepsy

When surgery can be utilized, it is much more likely to be effective in controlling epileptic seizures. There are 2 basic activities in which neuropsychologists are involved in connection with surgery for epilepsy:

- **Presurgical Assessment:** The NPE can be establish a presurgical baseline against which changes in cognitive abilities (e.g. memory) can be compared, alerting the surgeon as to the level of cognitive function associated with the area to be resected.
- **Postsurgical Assessment:** The NPE results can be used to establish rehabilitation potential and help set realistic expectations for functional outcome.

OUR LOCATIONS:

MAIN OFFICE

2100 Route 33
Suite 9-10
Neptune, NJ 07753
Phone: 732-988-3441
Fax: 732-988-7123
www.nrslifespan.com



SATELLITE OFFICE

1255 Route 70
Suite 25-S
Lakewood, NJ 08701
Phone: 732-961-9701
www.nrslifespan.com



R. Sica, S. Greco & Associates

Robert B. Sica, Ph.D. License #1519
Steven P. Greco, Ph.D. License #4517

Nonepileptic Seizures (NEPS)

The Role of Neuropsychology: The possibility exists that a patient may experience recurrent seizures who does not have epilepsy, but instead suffers from **nonepileptic psychogenic seizures (NEPS)**. Early identification of NEPS is critical, as the potential exists for misdiagnosis, iatrogenic hazards, and costly treatment over a protracted period of time.

Variability in several cognitive areas, including intelligence, has been reported. The general finding is that, as a group, patients with NEPS often show some degree of cognitive impairment and do not differ significantly compared to patients with epileptic seizures on neuropsychological testing.

The Role of the NPE Within the NEPS Population:

1. Determine the level of neuropsychological and emotional functioning.
2. Determine the impact of emotional and motivational factors upon cognitive and behavioral performance.
3. Relate neuropsychological strengths and weakness (besides emotional functioning) to education, occupational, and psychological treatment planning.

Potential Benefits of Accurate NEPS Diagnosis:

1. Decreased antiepileptic drug use, with corresponding decrease in cost, risk of toxicity, and neuropsychological impairment associated with antiepileptic drugs.
2. Access to psychological treatment for issues possibly underlying NEPS, and less time and expense spent for neurological treatments.
3. Increased quality of life, including possible return to work and other activities such as driving.