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Monthly newsletter from the epilepsy RESOURCE CONNECTION

Epileptics In Stressful Jobs Can Handle The Pressure

Subject to sudden unexpected seizures, persons with epilepsy are often a subject of discrimination in the workforce. Many employers are hesitant to hire persons with epilepsy, fearing that stressful workplace situations might bring on an attack. But a new Tel Aviv University study suggests these fears are groundless.

New research findings from Dr. Shlomo Moshe of Tel Aviv University show that occupational stress has no effect at all on the incidence of epilepsy attacks. The research also gives physicians and employers important information to assess the health and safety of prospective employees who suffer from the disorder. It especially benefits those who have been seizure-free for a long period of time, because indicators show they are likely to stay seizure-free.

"People are prejudiced against epileptics, who learn how to hide their condition very well," says Dr. Moshe. "It becomes a problem when they're trying to get work, because most employers avoid hiring epileptics. But occupational physicians have been asking for years, 'What are the real risks?' Our new study provides the answer." More than 3 million Americans suffer from epilepsy and 200,000 new cases are diagnosed every year.

One in 10 adults will have a seizure sometime in their lifetime. There is no cure for the disorder, and even when it's in remission, there is a strong stigma against people with epilepsy.

The largest of its kind ever conducted, Dr. Moshe's study, recently reported in the journal Epilepsia, surveyed over 300,000 people with no history of epilepsy and compared them to a sample of 16,000 epileptics. The last major study to investigate the risk of occupational stress on epilepsy, reported a few years ago by the New England Journal of Medicine, was based on a sample size of only 200 people, making this new Tel Aviv University study a real first in medical history.

With such a large sample size, Dr. Moshe is able to predict with high levels of certainty when — and whether — seizures might strike. This will reassure those with the disease, as well as the employers and insurance companies who provide health coverage for them.

"We proved with very high levels of predictability that we can pinpoint the chances of a person having another seizure," says Dr. Moshe, who is also a practicing physician at Maccabi Healthcare Services, an occupational health clinic in Tel Aviv. "For example, if we see that someone had their last attack as a child, we can show that their chances for a full remission of epilepsy are quite high."

Over a period of three years, the researchers in the Israeli study compared the rate of seizures to the types of duties each group of subjects was assigned to perform — manual labor, combat fighting, or office work.

"The type of assignment didn't affect a person's chance of having a seizure at all. The biggest predictor of recurrence is time — when the last seizure struck. Those that had seizures more than five years ago have little to worry about today," Dr. Moshe advises

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Oxygen Levels May Be Key to Sudden Death

A new study by researchers at UC Davis Medical Center suggests that the sudden unexplained deaths of some epilepsy patients may be a result of their brains not telling their bodies to breathe during seizures.

"Significant drops in blood oxygen levels are more common than we thought in patients with partial seizures," said study senior author Masud Seyal, director of the UCD Comprehensive Epilepsy Program.

The study, published in the journal *Brain*, studied Sudden Unexpected Death in Epilepsy (SUDEP), to examine deaths not explained by repeated convulsive seizures, accidents or other mishaps.

"What we've known for a long time is that SUDEP appears to be the most important cause of increased mortality in epilepsy patients. What we haven't known is what causes it," Seyal said.

The findings suggest that some cases of SUDEP may result from the brain not signaling the patient to continue breathing during seizures, though more conclusive evidence is needed, he said.

"It may have to do with an abnormal heart rhythm or it just may be that the brain stops sending the proper signals to maintain normal breathing," Seyal said.

In the retrospective study, Seyal and his colleagues examined records of 300 seizures in 57 epilepsy patients with chronic, recurrent, unprovoked seizures. They compared patients with severe convulsive seizures to those with milder symptoms like transient confusion, lip smacking and head turning.

One-third of all seizures were associated with drops in blood-oxygen levels below 90%. Seyal said he was surprised to find that 12% of these patients' blood oxygen levels actually dropped below 70% during their seizures.

They also discovered that seizures in the temporal lobe of the brain are more often associated with significant drops in blood-oxygen levels and that males are more likely than females to experience dangerously low levels of oxygen during seizures.

The study is important, Seyal said, because it suggests that hospitals that monitor inpatients for seizures should use both continuous blood-oxygen monitoring that sets off alarms when blood levels are too low and around-the-clock monitoring by staff or relatives.

In a hospital setting, blood-oxygen levels below 85% require intervention, such as giving supplemental oxygen, turning the patient on his side or suctioning the patient's airway, to help the patient breathe. "Our data show that it's important that respiratory parameters be closely monitored in the hospital," Seyal said.

The best strategy to reduce the likelihood of SUDEP is to promptly and effectively control patients' seizures, Seyal said.

Seyal and his colleagues are working to determine the best ways to deal with patients who have severe drops in oxygen levels

More about SUDEP: ϟMEDICAL NEWS TODAY
http://www.epilepsy.com/epilepsy/sudep_intro
http://www.med.nyu.edu/cec/epilepsy/sudep.html

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Depression Twice as Likely in Seizure Sufferers

A new study finds that the prevalence of depression is almost twice as high in people with epilepsy compared to the general population. Among those with epilepsy, racial minorities have seven times the odds of depression in comparison to the majority Caucasian population. The findings also show that 40% of depressed respondents with epilepsy were not accessing mental healthcare services.

Data from the 2000/2001 Canadian Community Health Survey was used to determine prevalence of epilepsy and depression. 13% of those with epilepsy were found to suffer from depression, compared to 7% of those without the disorder. Epilepsy was also associated with 43% higher odds of depression when adjusting for demographic factors. The odds were higher not only for minorities, but also for females, older adults and individuals experiencing food insecurity. Minority status and advanced age appear to be unique risk factors for depression in those with epilepsy, as these factors are not associated with depression in the general population.

Previous research indicates that, on average, individuals with epilepsy suffer from a greater number of chronic conditions, have worse self-reported health and experience increased pain. They are also more likely to have a lower quality-of-life, related to both health and other factors. Individuals with epilepsy have also been found to exhibit higher levels of recent psychological distress, a greater likelihood for a variety of psychiatric conditions and a higher prevalence of suicidal thoughts. Sufferers also typically have lower incomes, less education and are less likely to have full- or part-time employment.

"Individuals with epilepsy are vulnerable to depression, yet we have identified an important gap in mental health service provision," says Esme Fuller-Thomson of the University of Toronto, study co-author. "Routine screening and targeted interventions for depression are needed to help serve those with epilepsy."

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A TWO-WAY STREET: People with a history of depression have a 3 to 7 times higher risk of developing epilepsy.

Head Injury While Young Increases Epilepsy Risk

Children and young adults who suffer a traumatic brain injury are at high risk of developing epilepsy for more than 10 years after the injury, Danish researchers report.

But there's good news, too: treatments carried out during that time period may help prevent epilepsy, the team adds.

"Traumatic brain injury is a significant risk indicator for epilepsy many years after the injury. Drug treatment after brain injury with the aim of preventing post-traumatic epilepsy has been discouraging, but our data suggest a long time interval for potential, preventive treatment of high-risk patients," wrote Dr. Jakob Christensen, of the neurology department at Aarhus University Hospital, and colleagues.

Their analysis of national data on young people revealed that the risk of epilepsy was more than doubled among people who'd suffered a mild brain injury or skull fracture and was seven times higher than normal in those who'd suffered a serious brain injury.

Even after more than 10 years, people who'd suffered a mild brain injury were 1.5 times more likely than normal to develop epilepsy, those who'd suffered skull fractures had twice the risk, and those who'd suffered severe brain injury had 4.5 times the risk.

The risk of epilepsy was most pronounced in those older than 15 years -- mild brain injury increased the risk for this group by 3.5 times and severe brain injury increased the risk by more than 12 times.

The researchers also found that female brain injury patients had a slightly higher risk than males and that the risk was especially high among patients with a family history of epilepsy -- almost six times the risk for those with mild brain injury and 10 times the risk for those with severe brain injury. ϟUSN&WR

Adult Epilepsy Support Group

A Group for Adults with Epilepsy to Share Common Experience

Meets on Second Tuesday of the month @ 5:00 PM.

LOCATION: 2919 W. Second Street* in Wichita
*2nd and St. Paul St. between West Street and Meridian Ave.

Wichita MTA Bus Service is available to and from meeting — For information on MTA Service, call: 265-7221