

Clinical research needs *YOU* to help develop new cures!

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Why should I participate in a clinical research study?

Over the last 50 years, we have seen remarkable progress in our understanding of nervous system disorders and in developing new treatments for them. A number of milestones have been achieved that have made life substantially better for all of us. Many of these are possible only because people like you volunteered to participate in clinical research trials. We will highlight just a few of these milestones in this Patient Page. In this issue of *Neurology*, Drs. Schwid and Marler discuss how a lack of volunteers to participate in clinical research studies threatens to seriously hinder further progress. Their editorial accompanies the introduction of a "Clinical Trials Recruiting Section" that debuts in this issue.

Stroke

The development of a brain imaging scan called computed axial tomography (CT) in 1973 allowed health care providers to "see" brain damage from stroke for the first time. In 1992, because of the findings of several clinical trials, we learned that blood thinners prevent stroke in people with atrial fibrillation. In 1994, a clinical trial proved that carotid artery surgery to remove blockage prevents future stroke. Results from a 1996 clinical trial led to the approval of the first clot-busting drug in the U.S. that is effective in treating people with stroke within hours after it happens. Researchers are now working on developing new drugs that help protect the brain from further damage after a stroke.

Epilepsy

Abnormal brain wave activities, which can cause seizures, were first recorded in humans using a test called electroencephalography (EEG) in 1931. In 1954, clinical trials proved that brain surgery is an effective treatment for epilepsy in some patients. In 1975, a brain imaging test called positron emission tomography (PET) was developed. PET allows us to pinpoint the location in the brain where seizures begin. In 1993, new drugs to treat seizures were approved in the U.S. after a 20-year hiatus. We now have over eight approved new drugs and work continues at a rapid pace to develop even more.

Parkinson disease

Levodopa was approved in the U.S. as the first drug to effectively treat PD. Researchers discovered that a toxin called MPTP causes the symptoms of PD in humans and in animal models, in 1982. In 1984, these animal models were used to develop drugs that protect the brain from damage caused by PD. In 1990, interest in surgical treatment for PD was rekindled. Now we have many more options for the treatment of PD, including highly tailored surgical procedures and the implantation of stimulators that decrease PD symptoms.

Multiple sclerosis

Animal models were developed that increased our understanding of brain abnormalities in people with MS in 1930. In 1972, the first evidence that there might be a genetic predisposition towards developing MS was discovered. In 1986, researchers using magnetic reso-

nance brain imaging found that brain damage continues in people with MS even when they are free of symptoms. The first drugs to slow MS progression were approved in the U.S. in 1993. Development of more drugs continues today, with the promise of better effectiveness and hope for a cure.

Migraine headache

Blood levels of a chemical called serotonin were linked to migraine headache in 1950. In 1960, researchers showed that migraine could be prevented by increasing serotonin levels in the brain. In 1983, the first highly effective treatment to stop migraine was approved for use in the U.S.

The American Academy of Neurology published a poster in 1998 that highlighted these and other milestones in Neurology. This poster reminds us of the following important statement: "The brain is who we are, the essence of humanity. Protecting and treating the brain and the nervous system is the essence of neurology. Cures for neurologic illness can mean a richer and fuller life for billions of people. However, it is only with continued research that cures and treatments can become a reality."

Take the time to learn about the opportunities you have to participate in clinical research studies. Information about clinical research studies for neurologic diseases is available on the *Neurology* Web site at www.neurology.org, and on the National Institute of Neurological Diseases and Stroke Web site at www.nih.ninds.gov. Ask your neurologist how you can help. *YOU* are an essential part of the process!

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