# **Neurological conditions now leading cause of ill-health worldwide, finds study**

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Numbers living with or dying from disorders such as stroke rises dramatically to 3.4bn people – 43% of global population

Neurological conditions ranging from migraine to stroke, Parkinson’s disease and dementia, are now the leading cause of ill-health worldwide, causing 11.1 million deaths in 2021, research has revealed.

The number of people living with or dying from disorders of the nervous system has risen dramatically over the past three decades, with 43% of the world’s population – 3.4 billion people – affected in 2021, according to [a study published in the Lancet](http://www.thelancet.com/journals/laneur/article/PIIS1474-4422(24)00038-3/fulltext).

The analysis in the [Global Burden of Disease, Injuries, and Risk Factors study](https://www.healthdata.org/research-analysis/gbd) suggested that the total amount of disability, illness and premature death caused by 37 neurological conditions increased by just over 18% from about 375m years of healthy life lost in 1990 to 443m years in 2021.

Researchers said the rise was owing to the growth of the global population and higher life expectancy, as well as increased exposure to environmental, metabolic and lifestyle risk factors such as pollution, obesity and diet respectively.

In the UK, figures from Brain Research UK show one in six people have some form of neurological condition, with 2.6 million people living with the effects of traumatic brain injury or stroke.  
  
 There are more than 944,000 people in the UK who have dementia, with the numbers expected to increase to more than a million by 2030.

Globally, stroke was the condition with the greatest burden of disease. The other leading contributors included meningitis, epilepsy, Alzheimer’s disease and other dementias, brain injury in newborn babies, neurological complications in babies born before 37 weeks of pregnancy, nerve damage caused by diabetes, autism and cancers of the nervous system.

The most prevalent neurological disorders in 2021 were tension headaches, with about 2bn cases, and migraine, with about 1.1bn cases.

The fastest growing condition surveyed was nerve damage caused by diabetes, which was ranked as having the fifth highest disease burden globally, reflecting the steep rise in type 2 diabetes over the same period.

For the first time, the study examined neurodevelopmental disorders, such as autism, and neurological disorders in children, finding that they accounted for 80m years of healthy life lost worldwide in 2021 – about a fifth of the total.

The researchers highlighted global health inequalities, with 80% of neurological deaths and health loss occurring in low- and middle-income countries. In the worst-off regions of western and central sub-Saharan Africa, the death rate and years lost to ill-health, disability or early death were five times higher than the global average.

The study flagged up the importance of preventive measures to reduce the risk of developing some neurological conditions, most importantly lowering high systolic blood pressure, which measures arterial pressure when the heart beats. These measures could prevent 84% of illness, disability and premature death from stroke, it found.

The lead author, Dr Jaimie Steinmetz, from the Institute for [Health](https://www.theguardian.com/society/health) Metrics and Evaluation, said: “As the world’s leading cause of overall disease burden, and with case numbers rising 59% globally since 1990, nervous system conditions must be addressed through effective, culturally acceptable and affordable prevention, treatment, rehabilitation, and long-term care strategies.”

Dr Leah Mursaleen, the head of research at [Alzheimer’s Research UK](https://www.alzheimersresearchuk.org/), said: “These figures are really concerning and underline the need for urgent action. Without it, dementia is going to continue to devastate millions of lives across the world. Here in the UK, that means placing an even greater strain on the NHS.”

Juliet Bouverie, the chief executive at the [Stroke](https://www.theguardian.com/society/stroke) Association, said: “It is highly concerning to read that neurological conditions like stroke are now the leading cause of ill health and disability worldwide. In the UK alone, there are more than 100,000 strokes each year and 1.3 million stroke survivors and these numbers are only set to grow.  
  
 “While stroke has a devastating effect on many people and their family and friends, it also has a huge societal impact financially. By next year, the average cost of stroke to the NHS will rise to £43bn and this could increase to £75bn by 2035. Then there is the loss of productivity – with one in four strokes happening to people of working age, without support to get stroke survivors back into work, the UK is looking at a cost of £1.3bn per year in lost productivity.”