

ALS: The disease that Stephen Hawking defied for decades

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[British physicist Stephen Hawking](#) was one of the most famous sufferers of amyotrophic lateral sclerosis (ALS), the fatal neurological disease that paralysed his body but did nothing to curb his contribution to science.

The rare condition normally claims the lives of those who have it within two to three years of diagnosis, making Hawking's five-decade fight to overcome the [disease](#) an extraordinary exception.

The neurodegenerative condition attacks the [motor nerve cells](#) in the brain and spinal cord, hampering their ability to communicate with muscles and control voluntary movements, leading to eventual paralysis.

Early symptoms of stiffness and muscle weakness worsen over time as victims gradually lose the ability to walk, speak and breathe.

The deadly condition is very rare, occurring on average among two new cases per 100,000 people every year, most typically among individuals aged between 55 and 65.

It became something of a household name in 2014 after the viral "Ice Bucket Challenge", which saw people upload videos of themselves pouring cold water over their heads in a bid to raise awareness about the disease.

There is currently no cure or treatment that halts or reverses ALS, though there are some options to can help manage symptoms.

The disease takes two main forms, according to the US-based ALS Association.

The vast majority of people suffer from a "sporadic" version that can affect anyone while up to ten percent of cases in the US are inherited.

Military veterans are up to twice as likely to be diagnosed as the general public, for unknown reasons.

The average survival time for those affected by ALS is three years, according to the ALS Association.

Only five percent of patients live for 20 years or more.

Researchers have said Hawking's exceptional longevity remains a mystery, though some have noted that the diseases' progression varies by patient and could be governed by genetics.

Other famous victims of the disease include playwright Sam Shepard, who died in August 2017, "Sesame Street" co-creator Jon Stone and jazz musician Charles Mingus.

ALS is commonly referred to as "Lou Gehrig's disease" in a nod to the baseball legend who is believed to have died from the illness in 1941.

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