



## Amyotrophic lateral sclerosis



Lou Gehrig, who played baseball for the New York Yankees 1925 to 1939. His career was cut short by the disease amyotrophic lateral sclerosis.

Amyotrophic lateral sclerosis (ALS) is a neurological disorder characterized by progressive degeneration of motor neuron cells in the spinal cord and brain, which ultimately results in paralysis and death. The disease takes its less-scientific name from Lou Gehrig, a baseball player with the New York Yankees in the late 1920s and 1930s, who was forced to retire in 1939 as a result of the loss of motor control caused by the disease.

In 1991, a team of researchers linked familial ALS to chromosome 21. Two years later, the SOD1 gene was identified as being associated with many cases of familial ALS. The enzyme coded for by SOD1 carries out a very important function in cells: it removes dangerous superoxide radicals by converting them into non-harmful substances. Defects in the action of this enzyme mean that the superoxide radicals attack cells from the inside, causing their death. Several different mutations in this enzyme all result in ALS, making the exact molecular cause of the disease difficult to ascertain.

Recent research has suggested that treatment with drugs called antioxidants may benefit ALS patients. However, since the molecular genetics of the disease are still unclear, a significant amount of research is still required to design other promising treatments for ALS.

### Related diseases

[See other Muscle and Bone Diseases](#)

[See other Diseases of the Nervous System](#)