

Lou Gehrig and the ALS split hand

Figure Dissociated atrophy of intrinsic hand muscles: The ALS split hand



Lou Gehrig (1903–1941), the New York Yankees baseball player nicknamed “the Iron Horse,” began a streak of 2,130 consecutive games in June 1925 that ended when he developed left leg weakness 14 years later. The *ALS split hand* refers to preferential wasting of abductor pollicis brevis and first dorsal interosseous muscles, with relative preservation of the lateral abductor digiti minimi (A). A photograph of Gehrig (B, right) with teammate “Babe” Ruth (B, left) on display at Yankee Stadium, confirms wasting of his left first dorsal interosseous (C). It developed after initial ipsilateral leg weakness, and this pattern of spread of symptoms to contiguous body regions is typical in ALS. ALS = amyotrophic lateral sclerosis.

Patients diagnosed with the neurodegenerative disorder amyotrophic lateral sclerosis (ALS; also known as Lou Gehrig disease) frequently develop dissociated atrophy of the lateral intrinsic hand muscles (figure, A).¹ Preferential wasting of abductor pollicis brevis and first dorsal interosseous muscles, with relative preservation of the lateral abductor digiti minimi, is termed the *ALS split hand*.² Differential cortical representation of these muscles, linked to the evolution of an opposable thumb, is one postulated explanation.²

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1. Kiernan MC, Vucic S, Cheah BC, Turner MR, Eisen A, Hardiman O. Amyotrophic lateral sclerosis. *Lancet* 2011;377:942–955.
2. Turner MR, Hardiman O, Benatar M, et al. Controversies and priorities in amyotrophic lateral sclerosis. *Lancet Neurol* 2013;12:310–322.

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