

Glutamate

Nathaniel Yomogida, SPT

Chloë Kerstein, SPT

Table of contents

1 Overview	1
2 Excitotoxicity	1
3 Related pathologies	1

Glutamate, an excitatory neurotransmitter, has also been implicated in neurodegeneration. Excess glutamate triggers a cascade of events leading to cell death.¹³ Increased levels of glutamate in the cerebrospinal fluid (CSF), plasma, and in postmortem tissue of individuals with ALS have been reported.^{21,22} A deficiency in excitatory amino acid transporter 2 (EAAT2), a specific glutamate transporter protein, in the motor cortex and spinal cord of postmortem ALS tissue was reported and lends support to the theory of excitotoxicity causing neurodegeneration.

1 Overview

2 Excitotoxicity

3 Related pathologies

- [Amyotrophic lateral sclerosis](#) via [excitotoxicity](#)