Elon Reeve Musk was born on June 28, 1971, in Pretoria, South Africa's administrative capital. He is of British and Pennsylvania Dutch ancestry. His mother, Maye Musk (née Haldeman), is a model and dietitian born in Saskatchewan, Canada, and raised in South Africa. His father, Errol Musk, is a South African electromechanical engineer, pilot, sailor, consultant, emerald dealer, and property developer, who partly owned a rental lodge at the Timbavati Private Nature Reserve. Elon has a younger brother, Kimbal, and a younger sister, Tosca.

The family was wealthy during Elon's youth. Despite both Musk and Errol previously stating that Errol was a part owner of a Zambian emerald mine, in 2023, Errol recounted that the deal he made was to receive "a portion of the emeralds produced at three small mines." Errol was elected to the Pretoria City Council as a representative of the anti-apartheid Progressive Party and has said that his children shared their father's dislike of apartheid.

Elon's maternal grandfather, Joshua N. Haldeman, was an American-born Canadian who took his family on record-breaking journeys to Africa and Australia in a single-engine Bellanca airplane.

After his parents divorced in 1980, Elon chose to live primarily with his father. Elon later regretted his decision and became estranged from his father. In one incident, after having called a boy whose father had committed suicide "stupid", Elon was thrown down concrete steps and beaten severely by the boy and his friends, leading to him being hospitalized for his injuries. Elon has four paternal half-siblings.

Elon was an enthusiastic reader of books, later attributing his success in part to having read The Lord of the Rings, the Foundation series, and The Hitchhiker's Guide to the Galaxy. At age ten, he developed an interest in computing and video games, teaching himself how to program from the VIC-20 user manual. At age twelve, Elon sold his BASIC-based game Blastar to PC and Office Technology magazine for approximately \$500.