OBJECTIVE: Childhood abuse and other adverse childhood experiences (ACEs) have historically been studied individually, and relatively little is known about the co-occurrence of these events. The purpose of this study is to examine the degree to which ACEs co-occur as well as the nature of their co-occurrence. METHOD: We used data from 8,629 adult members of a health plan who completed a survey about 10 ACEs which included: childhood abuse (emotional, physical, and sexual), neglect (emotional and physical), witnessing domestic violence, parental marital discord, and living with substance abusing, mentally ill, or criminal household members. The bivariate relationship between each of these 10 ACEs was assessed, and multivariate linear regression models were used to describe the interrelatedness of ACEs after adjusting for demographic factors. RESULTS: Two-thirds of participants reported at least one ACE; 81%-98% of respondents who had experienced one ACE reported at least one additional ACE (median: 87%). The presence of one ACE significantly increased the prevalence of having additional ACEs, elevating the adjusted odds by 2 to 17.7 times (median: 2.8). The observed number of respondents with high ACE scores was notably higher than the expected number under the assumption of independence of ACEs (p < .0001), confirming the statistical interrelatedness of ACEs. CONCLUSIONS: The study provides strong evidence that ACEs are interrelated rather than occurring independently. Therefore, collecting information about exposure to other ACEs is advisable for studies that focus on the consequences of a specific ACE. Assessment of multiple ACEs allows for the potential assessment of a graded relationship between these childhood exposures and health and social outcomes.