Children from violent homes show accelerated aging of chromosomes

A new Tulane University School of Medicine study finds that the more fractured families are by domestic violence or trauma, the more likely that children will bear the scars down to their DNA.

Researchers discovered that children in homes affected by domestic violence, suicide or the incarceration of a family member have significantly shorter telomeres, which is a cellular marker of aging, than those in stable households. The findings are published online in the latest issue of the journal Pediatrics.

Telomeres are the caps at the end of chromosomes that keep them from shrinking when cells replicate. Shorter telomeres are linked to higher risks for heart disease, obesity, cognitive decline, diabetes, mental illness and poor health outcomes in adulthood. Researchers took genetic samples from 80 children ages 5 to 15 in New Orleans and interviewed parents about their home environments and exposures to adverse life events.

"Family-level stressors, such as witnessing a family member get hurt, created an environment that affected the DNA wit.hin the cells of the children," said lead author Dr. Stacy Drury.

Read the full, original story: Family violence leaves genetic imprint on children