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Girls growing up in homes without their biological fathers tend to go through puberty earlier than their peers. Whereas evolutionary theories of socialization propose that this relation is causal, it could arise from environmental or genetic confounds. To distinguish between these competing explanations, the authors used a genetically and environmentally controlled sibling comparison design to examine the effects of differential exposure to family disruption/father absence in a community sample of sister pairs. As specified by evolutionary causal theories, younger sisters had earlier menarche than their older sisters in biologically disrupted families (n = 68) but not biologically intact families (n = 93). This effect was superseded, however, by a large moderating effect of paternal dysfunction. Younger sisters from disrupted families who were exposed to serious paternal dysfunction in early childhood attained menarche 11 months earlier than either their older sisters or other younger sisters from disrupted families who were not exposed to such dysfunction. These data suggest that early exposure to disordered paternal behavior, followed by family disruption and residential separation from the father, can lead to substantially earlier menarche.