

**Table A1: Studies Exploring Biological Causes of Female Homosexuality
Genetic Influences**

Study	Study Sample	Study Description	Results/Findings	Study Conclusion
Twins				
Bearman & Bruckner (2002)	289 pairs MZ* twins, 495 pairs DZ twins, 1251 pairs full siblings, 442 pairs half-siblings & 662 pairs nonrelated siblings	Measures concordance rate** of homosexuality in twins (male and female)	5.3% concordance rate for MZ twins, 11.4% concordance rate for DZ twins (females only).	Findings reject simple genetic influence models. For OS twins, in the absence of strong gender socialization the proportion of male adolescents with SSA is twice as high as observed in the population as a whole. The effect is not observed in female OS twins, pointing toward gender specific differences in socialization.
Kendler, Thornton, Gilman & Kessler (2000)	2907 individuals making up twin and non-twin sibling sets.	Assesses heritability of homosexuality.	Estimates of the heritability of liability of sexual orientation range from 0.28-0.65. The estimates of the impact of familial environment were lower and ranged from 0.00-0.39.	Familial factors, which are at least part genetic, influence sexual orientation.
Bailey, Dunne & Martin (2000)	312 Male Twin Pairs (MZ); 182 Male Twin Pairs (DZ); 668 Female Twin Pairs (MZ); 376 Female Twin Pairs (DZ); 353 Opposite Sex Twin Pairs (DZ)	Assesses heritability of homosexual orientation, gender nonconformity & gender identity.	Only 24% of female MZ** twins had homosexual co-twin.	No statistically significant support that genetics cause homosexuality. However, nonconformity seems to be heritable.
Hershberger (1997)	Never married female twins were recruited; 1,314 pairs responded; 858 twin pairs were represented by one or both twins (male and female).	Measures concordance rates of homosexuality in twins.	Heritability of female homosexuality is between 18% & 48%.	Evidence of significant genetic effects but environmental effects also important.
Whitam, Diamond & Martin (1993)	Both gay and lesbian twins; 61 pairs; 3 triplet sets (male and female).	Measures concordance rates of homosexuality in twins.	75% concordance rate in MZ female twins.	Biological factors are operating. Precise nature of these factors yet to be understood.
Bailey, Pillard, Neale & Agye (1993)	115 female twins; 32 adoptive sisters; 147 combined (probands)	Measures concordance rates of homosexuality in female twins.	48% concordance rate in MZ female twins, 16% for DZ twins & 6% for adoptive sisters.	Heritable factors are significant but not conclusive.
King & McDonald (1992)	46 people returned questionnaires; 38 men; 8 females.	Measures concordance rates of homosexuality in twins.	20% concordance rate (males and females).	Genetic factors are insufficient explanation in the development of sexual orientation.
Eckert, Bouchard, Bohlen & Heston (1986)	51 pairs of male twins, 4 female pairs of twins.	Measures concordance rates of homosexuality in twins reared apart.	All female twins discordant in homosexuality.	Environmental factors decisive in developing female homosexuality.

Family Occurrence

Pattatucci & Hamer (1995)	358 women total, 182 lesbian, 114 bisexual, 62 heterosexual	Assesses role of inheritance (familiality) in female homosexuality.	Nonheterosexual women have elevated rates of nonheterosexual relatives.	Results are baffling. Difficult to distinguish between genetic or environmental transmission.
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*MZ = Monozygotic (identical) Twins

** Concordance rate is the percentage of twins in which both are homosexually oriented