

**Table A2: Studies Exploring Biological Causes of Female Homosexuality
Prenatal & Adult Hormonal and Neurodevelopmental Influences**

Study	Study Sample	Age	Study Description	Results/Findings	Study Conclusion
Auditory Responses					
Loehlin & McFadden (2003)	106 heterosexual males; 119 heterosexual females; 114 homosexual/bisexual males; 130 homosexual/bisexual females.	College age	Correlates auditory phenomenon, possibly related to prenatal hormonal effects, with sexual orientation.	More masculinized auditory responses in inner ear of female homosexuals than female heterosexuals.	It is unlikely that a simple prenatal androgenization hypothesis can explain differences.
McFadden & Pasanen (1998)	237 male and female subjects	Average age 21.7	Same as above	Peripheral auditory systems differ between heterosexual and lesbian women.	No conclusive evidence of what causes difference in auditory measurements in heterosexual vs. lesbian women. Lifestyle considered a possible factor.
Finger Length					
Hall & Love (2003)	12 sets of female twins.	24-56; mean = 39.6	Compares finger length ratios, possibly related to prenatal hormonal effects, in female MZ* twins.	In twins discordant** for sexual orientation, lesbian twin had lower finger length ratio.	Female homosexuality associated with lower finger length ratios
Williams et al. (2000)	720 male and female subjects		Same as above	Finger length ratios of homosexual women more masculine than heterosexual women.	Homosexual women exposed to higher fetal androgen (masculine hormone) levels.
Exposure to Prescription Drugs					
Ellis & Hellberg (2005)	4,839 mothers; 264 mothers from PFLAG	Average age for mothers 47.51; average age for PFLAG mothers 59.29	Relates mother's ingestion of various drugs to child's sexual orientation.	Mothers of homosexual daughters were more likely to have taken diet pills & thyroid medications during pregnancy.	Drugs may have indirect effect on female sexual orientation.
Meyer-Bahlberg et al. (1995)	120 women; 37 normal controls, 30 DES; 30 PAP; 30 DES ₂ ; 30 PAP ₂		Measures effect of mother's ingestion of synthetic estrogen (DES) on female children.	Increased occurrence of bisexuality and homosexuality amongst DES women.	Fetal hormonal influence may be one of many factors that leads to homosexual or heterosexual orientation. More study needed. No single biological factor can plausibly explain homosexuality.

Ehrhardt et al. (1989)	30 exposed women contrasted with 30 non-exposed women.	17-30	Investigates effect of prenatal exposure to exogenous estrogen (DES).	Increased bisexuality & homosexuality, but 75% of DES subjects were heterosexual.	May have contributed to development of sexual orientation, but not with strong or determining influence.
CAH*** & CVAH****					
Mulaikal, Migeon, & Rock (1987)	80 female subjects	18-35	Compares fertility rates in females with CAH.	Homosexuality more frequent amongst women with inadequate vaginal reconstruction.	Adequacy of reconstructive surgery important in determining sexual experience.
Money, Schwarts & Lewis (1984)	30 female subjects	Over 17	Studies fetal hormonal masculinization and demasculinization.	Likelihood of bisexuality or homosexuality increases when exposed to masculinizing hormones in the womb.	Fetal hormonal influence may contribute to a homosexual status.
AIS*****					
Money, Schwartz & Lewis (1984)	30 female subjects	Over 17	Measures effects of AIS on sexual orientation.	Low incidence of homosexual status in AIS women.	Fetal hormonal influence may contribute to a homosexual status.
Adult Sex Hormone Levels					
Dancey (1990a)	1st analysis 52 lesbians; 36 heterosexual women. 2nd analysis 35 lesbians; 22 heterosexual women all from the 1st analysis.	18-54; mean = 29.25	Compares hormone levels in adult homosexual and non-homosexual women.	No significant difference between any group.	Hormone levels don't fully explain lesbianism or heterosexual choice.
Downey, Ehrhardt, Shiffman, Dyrenfurth & Becker (1987)	7 homosexual; 7 heterosexual women	19-29	Measures sex hormones in lesbian and heterosexual women.	No significant difference between the 2 groups.	No significant difference in testosterone, androstenedione or cortisol levels in lesbain and heterosexual women.
Meyer-Bahlberg (1984); Gartrell, Loriaux & Chase (1977)			Compares hormone levels in homosexual and non-homosexual women	Testosterone levels higher in lesbian women.	Hormone levels don't fully explain differences in sexual preference.
Handedness					
Lalumiere, Blanchard & Zucker (2000)	Meta-analysis of 20 studies involving 6987 homosexuals: 805 females, 6182 males and 16,423 heterosexual men and women.		Compares sexual orientation and handedness in men and women.	Homosexual participants had 39% greater odds of being non-right handed.	The findings support the view that sexual orientation has an early neurodevelopmental basis, but do not identify the neurodevelopmental mechanisms underlying sexual orientation.

* MZ = Monozygotic (identical) Twins

**Discordant twin pairs are defined as one twin identifying as homosexual and the other identifying as heterosexual

***Congenital Adrenal Hyperplasia

****Congenital Virilizing Adrenal Hyperplasia

*****Androgen-Insensitivity Syndrome

***** DES= diethylstilbestrol exposure, PAP= abnormal pap smears