

Abortion's Effects on **RELATIONSHIPS**



A Woman's Partner

Nearly half of women in one study said abortion had "significantly altered" their relationship with their partner. Breakups are common, even among couples with previously stable relationships.

Her Parents

If a woman's parents coerce her to abort, the parent-child relationship is likely to be damaged. If kept a secret, abortion can put distance between parent and child.

Her Other Children

Women who have abortions are more likely to abuse their other children. Not surprisingly, children of aborting women have higher rates of behavior problems.

Future Partners

Past abortions may be kept secret from husbands out of fear of judgement or rejection, though hesitancy to discuss the event creates distance. Women may become anxious or uncomfortable with sexual activity. Others may become promiscuous.

Other Relationships

Women may become pessimistic about life in general and avoid people and situations that remind them of the abortion.

REGRET & ABANDONMENT

Abortion advocates will tell you that the most immediate emotional reaction a woman has to her abortion is one of relief — relief that the crisis is over, relief that she can get on with her life. While this may reflect her state of mind when others are urging her on and she is struggling to justify her decision in the immediate aftermath, polls and studies indicate many women end up regretting that decision in the weeks, months, or years that follow.

A 1989 Los Angeles Times survey found 56% of women who had abortions felt guilty about them, and 26% mostly regretted the abortion. Studies suggest that these numbers may be low, since negative reactions may be delayed, not surfacing for 5 or 10 years.

Despite his promises, a woman's partner often leaves after the abortion. The clinic staff is gone, and the woman has no desire to return to the place she associates with failure. Even friends who know hesitate to bring up the subject. This means, however, that she often deals with her pain, her doubts, her questions all alone.

POST-ABORTION SYNDROME

Professional counselors who have worked with women who have had abortions have recognized a cluster of reactions that fit the model of a post-traumatic stress disorder, a psychological dysfunction resulting from a traumatic experience which overwhelms a person's normal healthy defense mechanisms. Some of the symptoms they have found to be typical are:

- intense fear, anxiety, sense of helplessness**
- feeling of loss of control**
- emotional numbing, difficulty recalling event**
- guilt, pain, grief, depression**
- irritability, angry outbursts, aggressive behavior**
- sleep difficulties, sexual dysfunction**
- flashbacks, nightmares, anniversary reactions**
- withdrawal from relationships, avoidance of children**
- pessimism regarding future**
- drug, alcohol abuse, suicidal thoughts**

REAL HUMAN COST: Studies examining the records of over 50,000 California Medicaid patients from 1989-1994 found women who aborted having 2.6 times more psychiatric admissions in the first 90 days following pregnancy than women giving birth and 17% higher mental health claims over the following four years.

Self Abuse & **SUICIDE**



Self-Destructive Acts

For some women, abortion appears to lead to eating disorders such as binge eating, bulimia, and anorexia. Others become reckless, or attempt to cut or injure themselves.

Smoking

Women who have abortions are twice as likely to become heavy smokers and are more likely to continue smoking during subsequent pregnancies, increasing the risk of developmental malformations or fetal death.

Substance Abuse

Greater alcohol abuse has been found among women having abortions, bringing with it greater risk of violent behavior, divorce, auto accidents, and job loss. After their abortions, women are also more likely to abuse drugs, exposing them to other health and safety risks.

Suicide

More than half of women reporting post abortion problems say they have thought of suicide, with 28% actually attempting it. Government researchers in Finland found the suicide rate for women having abortions was three times the national average and nearly six times what it was for women giving birth.

Full documentation and additional info available at
www.nrlc.org

ABORTION'S Psycho-Social Consequences

Abortion's Effects: Reproductive System**Physical Damage**

Surgical abortion may harm a woman's reproductive system, damaging her uterus or cervix, leading to future reproductive problems.¹ Chemical abortions (using RU486, etc.) are bloody, painful, and dangerous,² but the long term effects on the body are unknown.³

Future Infertility

Women having abortions face more than a doubled risk of future sterility.⁴

Later Ectopic Pregnancy

A study appearing in the *American Journal of Public Health* in 1998 found aborting women facing a 50% increased risk of having a subsequent ectopic or tubal pregnancy. The risk was nearly twice as high (90%) for women having two or more previous abortions.⁵

Future Miscarriages

Decreased cervical resistance due to forced dilation⁶ may result in early cervical failure and the spontaneous abortion (miscarriage) of future pregnancies.⁷

1. In general, Chapter 4 "Impact on Subsequent Pregnancies, in Elizabeth Ring-Cassidy and Ian Gentles *Women's Health after Abortion*, 2nd Edition (Toronto: deVeber Institute, 2003), provides an excellent introduction to the relation of abortion injuries and their effect on future pregnancies. Cervical injuries are discussed below, but uterine perforations and their impact are detailed in the following citations: Jane E. Hodgson, "Abortion by vacuum aspiration," *Abortion and Sterilization: Medical and Social Aspects* (New York: Academic Press, Grune and Strathon, 1981), pp. 256-258; S. G., Kaali, et al, "The frequency and management of uterine perforations during first-trimester abortions," *American Journal of Obstetrics and Gynecology*, Volume 161, Number 2 (August 1989), pp. 406-408; E. Trott, et al, "Major complications associated with termination of a second trimester pregnancy: a case report," *Delaware Medical Journal*, Volume 67, Number 5 (May 1995), pp. 294-296. Uterine scarring has also been associated with higher rates of placenta previa, so that the pregnancy does not implant properly, attaching instead to the lower uterine segment at or near the cervix. This can result in serious injury to the mother and death of the baby during delivery due to severe hemorrhage and neonatal hypotension. For medical references, see J.M. Barret, et al, "Induced abortion: a risk factor in placenta previa," *American Journal of Obstetrics & Gynecology*, Volume 141, Number 7 (December 1, 1981), pp. 769-72; G.L. Rose and M.G. Chapman, "Aetiological factors in placenta previa – a case controlled study," *British Journal of Obstetrics and Gynaecology*, Volume 93, Number 6 (June 1986), pp. 586-588. V.M. Taylor et al, "Placenta previa in relation to induced and spontaneous abortion: a population based study," *Obstetrics and Gynecology*, Volume 82, Number 1 (July 1993), pp. 88-91 found a 28% increase in placenta previa among women having previous abortions, but dismissed the significance of this finding.

2. See our other factsheets, "RU486: Risks and Dangers," and "Deaths Associated with RU486," complete with references, available at www.nrlc.org.

3. Read the statement of Dr. Charles Cargille, "RU 486 Long Term Health Risks for Mother and Child" delivered to the U.S. Food & Drug Administration's Reproductive Health Drugs Advisory Committee Hearing on Mifepristone, July 19, 1996, transcript available at www.nrlc.org with Cargille's testimony starting on p. 75.

4. Anastasia Tzonou, et al, "Induced abortions, miscarriages, and tobacco smoking as risk factors for secondary infertility," *Journal of Epidemiology and Community Health*, Volume 47 (1993), p. 36.

5. C. Tharaux-Deneux, et al, "Risk of ectopic pregnancy and previous induced abortion," *American Journal of Public Health*, Volume 88, Number 3 (March 1998), pp. 401-405.

6. A. Molin, "Risk of damage to the cervix by dilation for first-trimester-induced abortion by suction aspiration," *Gynecologic and Obstetric Investigation*, Volume 35, Number 3 (1993), pp. 152-154.

7. F.J. Zlatnick, et al, "Radiological appearance of the upper cervical canal in women with a history of premature delivery: II. Relationship to clinical presentation and to test of cervical compliance," *Journal of Reproductive Medicine*, Volume 34, Number 8 (1989), pp. 525-530.

Future Prematurity

Premature birth is the leading cause of infant morbidity and mortality,⁸ and at least ten international studies show previous abortions significantly increases that risk.⁹

Infant Disability

Preterm birth is associated with lower birthweight and higher rates of cerebral palsy,¹⁰ often leading to physical and mental disability.¹¹

8. J.M. Thorp, *et al*, "Long-term physical and psychological health consequences of induced abortion: review of the evidence," *Obstetric and Gynecological Survey*, Volume 58, Number 1 (2003) pp. 67-79.

9. Most recently, see Caroline Moreau, *et al*, "Previous induced abortions and the risk of very preterm delivery: results of the EIPAGE study," *British Journal of Obstetrics and Gynaecology*, Vol. 112 (April 2005), pp. 430-437. Also, see W. Zhou, *et al*, "Induced abortion and subsequent pregnancy duration," *Obstetrics & Gynecology*, Volume 94, Number 6 (December 1999), pp. 948-53; R.M. Pickering, *et al*, "Risk of preterm delivery and small-for gestational age infants following abortion: A population study," *British Journal of Obstetrics and Gynaecology*, Volume 92 (1985), pp. 1106-1112. R. Michielutte, *et al*, "A comparison of risk assessment models for term and preterm low birthweight," *Preventive Medicine*, Volume 21 (1992), pp. 98-109; G.S. Berkowitz, "An epidemiologic study of preterm deliver," *American Journal of Epidemiology*, Volume 113 (1981), pp. 81-92; E. Lieberman, "Risk factors accounting for racial differences in the rate of premature birth," *New England Journal of Medicine*, Volume 317 (1987), pp. 743-748; J.M. Lang *et al*, "A comparison of risk factors for preterm labor and term small-for-gestational-age birth," *Epidemiology*, Volume 7 (1996) 369-376; E. Mueller-Heubach and D.S. Guzick, "Evaluation of risk scoring in a preterm birth prevention study of indigent patients," *American Journal of Obstetrics and Gynecology*, Volume 160 (1989) pp. 829-837; P.H. Shiano and M.A. Lebanoff, "Ethnic differences in preterm and very preterm delivery," *American Journal of Public Health*, Vol. 76 (1986), pp. 1317-1321; S.N. Pantelakis, *et al*, "Influence of induced and spontaneous abortions on the outcome of subsequent pregnancies," *American Journal of Obstetrics and Gynecology*, Vol. 116 (1973), pp. 799-805; J. Lumley, "The association between spontaneous abortion, prior induced abortion and preterm birth in first singleton births," *Prenatal and Neonatal Medicine*, Vol. 3 (1998) pp. 21-24; J.W. Van Der Slikke and P.E. Treffers, "Influence of induced abortion on gestational duration in subsequent pregnancies," *British Medical Journal*, Vol. 1 (1978), pp. 270-272; J.A. Richardson and G. Dixon, "Effect of legal termination on subsequent pregnancy," *British Medical Journal*, Vol. 1 (1976), pp. 1303-1304; R.M. Pickering and J.J. Deeks, "Risks of delivery during 20th to 36th weeks of gestation," *International Journal of Epidemiology*, Vol. 20 (1991), pp. 456-466; O. Koller and S.N. Eikhom, "Late sequelae of induced abortion in primigravidae," *Acta Obstetrica et Gynecologica Scandinavica*, Vol. 56 (1977), pp. 311-317; G. Papaevangelou, *et al*, "The effect of spontaneous and induced abortion on prematurity and birthweight," *Journal of Obstetrics and Gynecology of the British Commonwealth*, Vol. 80 (May 1973), pp. 418-422; Z. Bognar and A. Czeizel, "Mortality and morbidity associated with legal abortions in Hungary, 1960-1973," *American Journal of Public Health*, Vol. 66 (1976), pp. 568-575; J.A. Martius, *et al*, "Risk factors associated with preterm (<37+0 weeks) and early preterm (<32+0 weeks): univariate and multi-variate analysis of 106 345 singleton births from 1994 statewide perinatal survey of Bavaria," *European Journal of Obstetrics & Gynecology and Reproductive Biology*, Vol. 80 (1998) pp. 183-189; V. Lekea-Karanika, *et al*, "Previous obstetric history and subsequent preterm delivery in Greece," *European Journal of Obstetrics & Gynecology and Reproductive Biology*, Vol. 37 (November 1990), pp. 99-109; P.V. Ancel, "Very and moderate preterm births: are the risk factors different?" *British Journal of Obstetrics and Gynaecology*, Volume 106 (1999), pp. 1126-1170; J. Lumley, "Very low birth-weight (<1500g) and previous induced abortion: Victoria 1982-1983," *Australian and New England Journal of Obstetrics and Gynecology*, Vol. 26 (1986), pp. 268-272. Twenty-nine additional studies listed in B. Rooney and B. C. Calhoun, "Induced abortion and the risk of later premature births," *Journal of American Physicians and Surgeons*, Summer 2003.

10. G.J. Escobar, *et al*, "Outcome among surviving very low birthweight infants: a meta-analysis," *Archives of Disease in Childhood*, Vol. 66 (1991), pp. 204-211; J.A. Martin, "Births: Final Data for 2001," *National Vital Statistics Reports*, Volume 51, Number 2 (December 18, 2001).

11. J.M. Thorp, *et al*, "Long-term physical and psychological health consequences of induced abortion: review of the evidence," *Obstetric and Gynecological Survey*, Volume 58, Number 1 (2003) pp. 67-79.

PAIN

Ninety-seven percent of aborting women in one Montreal study reported pain, with 61% reporting moderate to severe pain.¹²

U.S. researchers admit to being "surprised" at finding most women in a study of their own reporting "moderate or more discomfort" during their abortions and said they had not expected so many to report "severe pain."¹³

Adolescents in the Montreal study were nearly twice as likely to report severe pain as older women. In a ranking, women put abortion pain ahead of sprains, fractures, and arthritis, but about equal to cancer pain or the residual pain from an amputation.¹⁴ Women having drug induced abortions reported higher pain levels than those having surgical abortions.¹⁵

Despite efforts by the industry to minimize abortion pain, it is an important signal that patients and doctors should heed. Pain may be a side effect of surgery or the chemical abortion process, but can also be an indicator of infection, cervical damage, uterine rupture, or an unresolved ectopic pregnancy.¹⁶

12. E. Belanger, "Pain of the first trimester abortion: a study of psychosocial and medical predictors," *Pain*, Volume 36, Number 3 (March 1989), pp 339-350. For an earlier study with similar results, see Phillip G. Stubblefield, et al, "Pain of first-trimester abortion: Its quantification and relation with other variables," *American Journal of Obstetrics and Gynecology*, Vol 133., No. 5 (March 1, 1979), p. 489.

13. L. Borgatta and D. Nickinovich, "Pain during early abortion," *Journal of Reproductive Medicine*, Vol. 42, No. 5 (May 1997), pp. 287-293.

14. E. Belanger, "Pain of the first trimester abortion: a study of psychosocial and medical predictors," *Pain*, Volume 36, Number 3 (March 1989), pp 339-350.

15. Ellen R. Wiebe "Abortion induced with methotrexate and misoprostol," *Canadian Medical Association Journal*, Vol. 154, No. 2 (January 15, 1996), pp. 165-170. See also K. Holmgren, "Women's evaluation of three early abortion methods," *Acta Obstetrica et Gynecologica Scandanavica*, Vol. 71, No. 8 (December 1992) pp. 616-623.

16. Most will consider this common sense, but for those seeking a further explanation, discussion, and documentation see Chapter 9 "Pain", in Elizabeth Ring-Cassidy and Ian Gentles *Women's Health after Abortion*, 2nd Edition (Toronto: deVeber Institute, 2003), pp. 115-122.

Injury and Death

from surgical abortion

- Infection, Sepsis,¹⁷ Endometritis¹⁸
- Cervical Lacerations¹⁹
- Uterine, Bladder, or Bowel Perforations²⁰
- Pelvic Inflammatory Disease²¹
- Incomplete Abortion,²² Retained Tissue²³

from chemical abortion

- severe pain, cramping, nausea, diarrhea²⁴
- hemorrhage, infection, ruptured undiagnosed ectopic²⁵

17. David N. Danforth, ed. *Obstetrics and Gynecology*, 5th ed. (Philadelphia: J.B. Lippincott, 1986), pp. 217, 257, 382-383; Jack Pritchard, ed., et al, *Williams Obstetrics*, 17th ed. (Norwalk, CT: Appleton-Century-Crofts, 1985), p. 484; . Sykes, "Complications of termination of pregnancy: a retrospective study of admissions to Christchurch Women's Hospital 1989 and 1990," *New Zealand Medical Journal*, Vol. 106, No. 951 (March 10, 1993), pp. 83-85.

18. R.T. Burkman, et al, "Culture and treatment results in endometritis following elective abortion," *American Journal of Obstetrics & Gynecology*, Vol. 128, No. 5 (July 1, 1977), pp. 556-559.

19. Kenneth F. Schulz, David A. Grimes, Willard Cates, Jr., "Measures to Prevent Cervical Injury During Suction Curettage Abortion," *The Lancet*, May 18, 1983, p. 1182.

20. Phillip G. Stubblefield, "First and second trimester abortion," *Gynecologic and Obstetric Surgery*, ed. David H. Nichols (Baltimore: Mosby, 1993), pp. 1023-24; S. G., Kaali, et al, "The frequency and management of uterine perforations during first-trimester abortions," *American Journal of Obstetrics and Gynecology*, Volume 161, Number 2 (August 1989), pp. 406-408.

21. A.L. Blackwell, et al, "Health gains from screening for infection..." *The Lancet*, Vol. 342, No. 8865 (July 24, 1993), pp.206-210; B. Major, et al, "Psychological responses of women after first-trimester abortion," *Archives of General Psychiatry*, Vol. 57, No. 8 (August 2000), p. 780.

22. A. Steier and P. Bergsjo, "Failed induced abortion. Pregnancy continuing after failed first-trimester abortion" [trans. title], *Tidsskr Nor Laegeforen*, Vol. 112, No. 19 (August 20, 1992) pp. 2538-40. ;W.L. Fielding, et al, "Continued pregnancy after failed first-trimester abortion," *Obstetrics & Gynecology*, Vol. 52, No. 2 (July 1978) pp. 56-58.

23. Jane E. Hodgson, "Abortion by vacuum aspiration," *Abortion and Sterilization: Medical and social aspects* (New York: Academic Press, Grune and Strathon, 1981), pp. 256, 260-261.

24. Multiple sources, listed and documented in NRL ETF factsheet "RU486: Risks & Dangers" available at <http://nrl.etf.org/ru486/>.

25. In addition to factsheet mentioned above, see NRL ETF factsheet "Deaths Associated with RU486," at <http://nrl.etf.org/ru486/>.

Abortion Related Causes of Death²⁶Anesthesia²⁷Infection²⁸Hemorrhage²⁹Ruptured Ectopic Pregnancy³⁰Embolism³¹

There have been over 350 identified deaths from legal abortion in the U.S. since 1972.³²

26. General identification of abortion related mortality factors and risks can be found at L.M. Koonin, *et al*, "Pregnancy-Related Mortality Surveillance – United States, 1987-1990," *Morbidity and Mortality Weekly Review (MMWR)*, Vol. 46, SS-4 (August 8, 1997), pp. 17-36; H.W. Lawson, *et al*, "Abortion Mortality. United States 1972-1987" *American Journal of Obstetrics and Gynecology*, Vol. 171 (1994), pp. 1365-1372. Most of the sources listed below concern mortality connected to surgical abortion, but recent use of chemical abortion methods has also been associated with maternal mortality due to infection, hemorrhage, and ruptured ectopic pregnancy. For more details on chemical abortion deaths see the NRL-ETF factsheet "Deaths Associated with RU486," at www.nrlc.org.

27. H.K. Atrash, *et al*, "Legal abortion mortality and general anesthesia," *American Journal of Obstetrics and Gynecology*, Vol. 158, No. 2 (February 1988), pp. 420-424.

28. A Rana, *et al*, "Induced septic abortion: a major factor in maternal mortality," *Journal of Obstetrics and Gynaecology Research*, Vol. 30, No. 1 (February 2004), pp. 3-8.

29. D. Grimes, *et al*, "Fatal Hemorrhage from Legal Abortion in the United States," *Surgery, Gynecology and Obstetrics*, Vol. 157 (November 1983), pp. 461-466.

30. H.K. Atrash, "Ectopic pregnancy concurrent with induced abortion: Incidence and mortality," *American Journal of Obstetrics and Gynecology*, Vol. 162, No. 3 (March 1990), pp. 726-730; G. Rubin, *et al*, "Fatal Ectopic Pregnancy After Attempted Legally Induced Abortion," *Journal of the American Medical Association*, Vol. 244, No. 15 (October 10, 1980), pp. 1705-8.

31. H.W. Lawson, *et al*, "Fatal pulmonary embolism during legal abortion in the United States from 1972-1985," *American Journal of Obstetrics & Gynecology*, Vol. 162 (1990), pp. 986-990.

32. Lilo T. Strauss, *et al*, Table 19, "Abortion Surveillance — United States 2001," *MMWR*, Vol. 53, SS 9 (November 26, 2004), available at www.cdc.gov/mmwr/preview/mmwrhtml/xx5309a1.htm.

Abortion's Link to Breast Cancer³³**Pregnancy & Normal Breast Development**

In pregnancy, as estrogen levels elevate, immature milk glands, or lobules, begin to grow and differentiate, reaching maturity around 32 weeks. By birth, the lobules are fully formed and ready for milk production. That is why a full term pregnancy is known to lower a woman's long term risk of breast cancer.³⁴

Abortion Interrupts Breast Development

Abortions, which typically occur in the first or early second trimester, interrupt the process of breast development while estrogen is still surging, urging growth, but before full differentiation has taken place. Thus, the risk-lowering effect of full term pregnancy is lost. Even worse, lobules stuck in this growth stage are susceptible to replication defects, which may eventually manifest themselves as cancers.³⁵

Scientific Evidence of Abortion's Impact

Thirteen out of 17 studies in the U.S. reported more breast cancer among women who chose abortion.³⁶ A 1996 meta-analysis of all published reports on the incidence of induced abortion and breast cancer appearing in the *Journal of Epidemiology and Community Health* found, on average, a 30% increased risk.³⁷

Link to Other Cancers

Abortion has also been associated with higher rates of cervical³⁸ and ovarian cancer.³⁹

33. The most detailed and up to date information on the abortion breast link may be found at the Breast Cancer Prevention Institute website, www.bcpinstitute.org and the website of the Coalition on Abortion/Breast Cancer as www.abortionbreastcancer.com. Most of the material cited below may be found on these sites, but with more explanation and detail.

34. Several articles by J. and I.H. Russo detail these changes and their significance, the most recent being J. Russo, *et al*, "Breast differentiation and its implication in cancer prevention," *Clinical Cancer Research*, Vol. 11, No. 2, pt. 2 (January 15, 2005), pp. 931s-6s and J.Russo and I.H. Russo, "Development of the human breast," *Maturitas*, Vo. 49, No. 1 (September 2004), pp. 2-15. Original clinical study by the Russos and A.L. Romero is detailed in J.Russo, *et al*, "Architectural pattern of the normal and cancerous breast under the influence of parity," *Cancer Epidemiology Biomarkers & Prevention*, Vol. 3 (April/May 1994), pp. 219-224.

35. While not specifically addressing abortion, the underlying mechanism and the significance of incomplete differentiation is discussed in J. Russo, H. Lynch, and I.H. Russo, "Mammary gland architecture as a determining factor in the susceptibility of the human breast to cancer," *The Breast Journal*, Vol. 7, No. 5 (September/October 2001), pp 278-291 and also J. Russo, *et al*, "Cancer risk related to mammary gland structure and development," *Microscopy Research and Technique*, Vol. 52, No. 2 (January 15, 2001), pp. 204-223. A booklet by breast surgeon Angela Lanfranchi and endocrinologist Joel Brind *Breast Cancer: Risks and Prevention* lays out the connection between abortion and breast cancer in detail in the chapter titled "Reproductive History and Breast Cancer Risk." The booklet is available for purchase or free download at www.bcpinstitute.org.

36. Pike *et al* (1981) *Br J Cancer* 43:72-6; Brinton *et al* (1983) *Br J Cancer* 47: 757-62; Rosenberg *et al* (1988) *Am J Epidemiol* 127:981-9; Howe *et al* (1988) *Int J Epidemiol* 18:300; Laing *et al* (1993) *J Natl Med Assoc* 85:931-9; Laing *et al* (1994) *Genet Epidemiol* 11:A300; White *et al* (1994) *J Natl Cancer Inst* 86:505-14; Daling *et al* (1994) *J Natl Cancer Inst* 86:1584-92; Newcomb *et al* (1996) *JAMA* 275: 283-7; Daling *et al* (1996) *Am J Epidemiol* 144:373-80; Wu *et al* (1996) *Br J Cancer* 73:680-6; Palmer *et al* (1997) *Cancer Causes Control* 8:841-9; Marcus *et al* (1999) *Am J Pub Health* 89:1244-7; Lazovich *et al* (2000) *Epidemiol* 11:76-80.

37. Joel Brind, *et al*, "Induced abortion as an independent risk factor for breast cancer: a comprehensive review and meta-analysis," *Journal of Epidemiology and Community Health*, Vol 50 (1996), pp. 481-496.

38. C. La Vecchia, *et al*, "Long-term impact of reproductive factors on cancer risk," *International Journal of Cancer*, Vol. 53, No. 2 (January 21, 1993), pp. 215-219.

39. A. Bernal, *et al*, "Univariate and multivariate analysis of risk factors for ovarian cancer: case control study, Mexico City," *Archives of Medical Research*, Vol. 26, No. 3 (Autumn 1995), pp. 245-249 notes increased risk, but does not distinguish between spontaneous and induced abortion.