Appendix C

Contraception and Abortion Options

Contraception

In the United States each year there are approximately 4 million births (U.S. National Center for Health Statistics, 2009). Sixty-two million women in our country are in their childbearing years (15–44), and 43 million of these women—7 out of 10—are sexually active and do not want to become pregnant, but could become pregnant if they and their partners fail to use a reliable contraceptive method. The average woman would like to have only two children, and to achieve this goal she must use contraceptives for approximately 30 years (Alan Guttmacher Institute, 2009b).

Almost all women (98%) aged 15–44 who have had intercourse have used at least one contraceptive method. Sixty-two percent of the 62 million women in their childbearing years are currently using a contraceptive method, while 31% do not need contraception because they are infertile, they are pregnant, they have just had a baby or are trying to become pregnant, they have never had intercourse, or they are not heterosexually active. Thus, only 7% of women in the childbearing years are at risk of unwanted pregnancy and are not using contraceptives (Alan Guttmacher Institute, 2009b).

Why are unintentional pregnancies so common in our society? The answer, in short, is that effective contraception takes a good deal of planning and thought, and sex for most people simply does not. Social psychologist Donn Byrne (1983, 2009) outlines five steps involved in effective contraception. Our commentary follows each of Byrne's steps:

1. *The individual must acquire and remember accurate information about contraception.* This is no small task.
2. *The individual must acknowledge the likelihood of engaging in sexual intercourse.* Many in our society—in particular, women—receive the message that nonmarital sex is wrong. Preparing for nonmarital sex thus seems doubly wrong.
3. *The individual must obtain the contraceptive.* This involves a visit to a physician, a drugstore, or a clinic. This also involves admitting both to oneself and to others that one is planning to have sex.
4. *The individual must communicate with her or his partner about contraception.* Partners who do not communicate cannot assume the other has taken preventive measures. Unfortunately, the likelihood of communication about contraception is relatively low.
5. *The individual must actually use the contraceptive method.* People sometimes resist using contraceptives because they consider some methods to be messy, interruptive, or unromantic.

Byrne's five steps make it clear that there are many barriers to the effective understanding and use of contraception. It is little wonder that so many pregnancies are unplanned.

The science of **contraception**—which focuses on the prevention of conception, or pregnancy—has from its very beginnings been an embattled research area. Pressure from conservative religious groups and politicians has impeded progress in this area in the United States.

The ideal contraceptive would be harmless, reliable, free of objectionable side effects, inexpensive, simple, reversible in effect, removed from the sexual act, and protective against sexually transmitted disease. Unfortunately, there is no such contraceptive.

Methods of Contraception

Birth control methods used by women and men in this country fall into six broad categories: sterilization, oral contraceptives, barrier methods, intrauterine devices (IUDs), spermicides, and hormone implants (Alan Guttmacher Institute, 2009a; Hatcher et al., 1994, 1997, 1998; Hyde & DeLamater, 2003; Insel & Roth, 2004; Kelly, 2004). Fertility awareness methods, which involve avoiding intercourse during the fertile phase of a woman's menstrual cycle, are also used by some.

Sterilization

Sterilization, or voluntary surgical contraception, is the contraceptive method of choice for 27% of U.S. women and for 9.2% of U.S. men. This method is used by men and women who do not wish to have children or who have had all the children they desire. The sterilization procedure for women, called **tubal ligation**, involves cutting or tying and sealing the woman's fallopian tubes to prevent passage of the ova into the uterus; the procedure is difficult to reverse. The male sterilization procedure, called **vasectomy**, involves surgically severing the vasa deferentia; it is also usually irreversible and should be considered permanent. Sterilization is a more complex procedure in women than in men. In actual practice, sterilization is typically 99.6% effective for women and 99.85% effective for men (Hatcher et al., 2007).

Oral Contraceptives

Oral contraceptives, or birth control pills, are favored by 30.6% of U.S. women. Oral contraceptives are 92% effective in preventing pregnancy. The *pill*, a combination oral contraceptive, contains the hormones **estrogen** and **progestin**. In addition to preventing pregnancy, the pill makes the menstrual cycle more regular, tends to reduce menstrual cramping, and is associated with lower incidences of breast and ovarian cysts and pelvic inflammatory disease (PID). Potential negative side effects of the pill include nausea, weight gain, fluid retention, breast tenderness, headaches, missed menstrual periods, acne, mood changes, depression, anxiety, fatigue, decreased sex drive, and circulatory diseases (Alan Guttmacher Institute, 2009a).

The *minipill* contains progestin only. Besides reliability, the minipill brings increased regularity to the menstrual cycle, tends to reduce menstrual cramping, and is associated with a lower incidence of breast and ovarian cysts and PID.

Emergency oral contraception refers to methods used after unprotected sexual intercourse. An emergency contraceptive may be appropriate after a regularly used method has failed (e.g., if a condom breaks). Emergency contraception is designed to be used for just that and should not be relied on as a regular method. Though there are nearly two dozen brands of pills that can be used for emergency contraception in the United States, Plan B, which contains the hormone progestin, is the only brand specifically approved and marketed for emergency contraceptive use. Generally speaking, emergency contraceptive pills are taken in two doses: the first dose is taken as soon as possible (up to 120 hours) after a woman has had sex without using birth control, the birth control method failed, or the woman was forced to have sex. The second dose is taken 12 hours later. However, if the woman is using Plan B, she has the option of taking both doses at the same time. Emergency contraceptive pills are most effective the sooner they are taken after sex (Office of Population Research and Association of Reproductive Health Professionals, 2009).

Barrier Methods

Barrier methods of contraception, favored by 19% of U.S. women, include condoms, diaphragms, and cervical caps. Failure rates are 15% to 16% (Alan Guttmacher Institute, 2009a).

Condom. Worn by the male over the penis during intercourse, a **condom**, made of latex rubber, catches semen and prevents it from entering the vagina. Condoms are available without a prescription and offer protection against sexually transmitted diseases (STDs). Although condom use is a contraceptive method a man can take responsibility for, one-third of all condoms are purchased by women. Condoms can fail for a variety of reasons: breakage; not leaving a space at the tip of the condom to collect the semen; lubrication with petroleum jelly, which weakens latex; seepage of semen around the opening of the condom or if the condom slips off in the vagina after coitus; storing the condom for more than 2 years or storing it at temperature extremes; and not placing the condom on the penis at the beginning of intercourse. Some people are allergic to rubber condoms. (Other "natural" kinds are also available.) Some men complain that condoms reduce sensation on the penis. The failure rate for condoms is about 17.9%.

Diaphragm. A **diaphragm** is a dome-shaped cup of thin rubber stretched over a collapsible metal ring. The diaphragm, which must be used with a spermicidal (sperm-killing) cream or jelly, is inserted into the vagina to cover the mouth of the cervix, blocking sperm from entering the uterus. Inexpensive and reusable, a diaphragm must be fitted by a physician. Common reasons for failure of a diaphragm to prevent pregnancy include improper fitting or insertion of the diaphragm, removal of the diaphragm too soon (sooner than 6 to 8 hours) after intercourse, insufficient use of spermicide with the diaphragm, damage to the diaphragm, leakage around the diaphragm, or dislodging of the diaphragm. Some people are allergic to the rubber in diaphragms (plastic diaphragms are also available), and some people are allergic to spermicides. Diaphragm users also have an increased risk of toxic shock syndrome, bladder infection, and vaginal soreness caused by pressure from the rim of the diaphragm. The failure rate for diaphragms is about 16%.

Cervical Cap. A thimble-shaped rubber or plastic cup, the **cervical cap** fits over the cervix and is held in place by suction. Like the diaphragm, it must be fitted by a clinician and is used with a spermicide; it can, however, be left in place for longer periods of time than the diaphragm. Potential problems that can result in pregnancy include improper fitting, insertion, or placement. Women using cervical

caps also have a possible risk of toxic shock syndrome or of an allergic reaction to the rubber or the spermicide. Also the cervical cap may abrade or irritate the vagina or cervix. The failure rate for cervical caps is about 18%.

Intrauterine Devices

Intrauterine devices (IUDs) are made of molded plastic and are inserted by a physician into a woman's uterus through the vagina. The IUD apparently works by causing an inflammatory reaction inside the uterus that attracts white blood cells. The white blood cells then produce substances that are poisonous to sperm and thus prevent fertilization of the egg. The inflammatory reaction can be halted by removing the IUD (Berkow, 1997).

Most U.S. manufacturers have stopped making IUDs because of the fear of costly lawsuits over their safety. Although they are still favored by 2% of women, IUDs have caused pelvic infections, some serious enough to have resulted in the death of about 21 women. Other negative side effects include uterine cramping, abnormal bleeding, and heavy menstrual flow. IUDs come in a variety of shapes. An IUD is inserted through the vagina and cervix into the uterus by a medical professional, where it remains until the woman wishes to have it removed. So that the wearer can be sure the IUD has not been expelled by the uterus, a slender string attached to the IUD protrudes through the cervical opening just far enough into the vagina so that the woman can feel it with her finger. IUD failure rates are typically under 1%, mostly resulting from expulsion of the IUD without the woman's notice (Alan Guttmacher Institute, 2009a).

Spermicides

Favored by 3% of women, **spermicides** include foams, creams, jellies, and vaginal inserts (also called vaginal suppositories). They are available without a prescription. Spermicides must be inserted with an applicator into the vagina before intercourse and are only effective for a short time. Many couples dislike having to interrupt the sexual act to insert a spermicide. Failure rates are 29% (Alan Guttmacher Institute, 2009a). Pregnancy can result when too little spermicide is used, if the spermicide is placed in the vagina too long before intercourse, if the woman douches within 6 to 8 hours after intercourse, or, in the case of suppositories, if the spermicide fails to melt or foam properly. Some people are allergic to the chemicals in spermicides. Some say they taste unpleasant during oral-genital sex.

Depo-Provera Injections

Depo-Provera (DMPA), a progestin administered by injection, became available in this country in 1992. DMPA injections must be repeated every 3 months for maximum effectiveness. DMPA is used in more than 90 nations around the world (Hatcher et al., 2007). DMPA works like other progestin-only methods by inhibiting ovulation, thickening cervical mucus, and inhibiting the growth of the endometrium. It is very effective, with a typical user failure rate of 3% (Hyde & DeLamater, 2008).

Withdrawal

Withdrawing the penis before ejaculation is a highly unreliable way to prevent pregnancy. An estimated 27% of women whose partners use this approach will become pregnant in any given year (Alan Guttmacher Institute, 2009a).

Douching

Flushing the vagina with vinegar or some other type of acidic liquid such as *Coca-Cola* is also an ineffective birth control method. Although it is true that some acidic solutions will kill sperm, it can take sperm only a minute to reach the cervical mucus; once there, they move freely into the uterus, where no douching solution can reach them. The douche itself, in fact, may even push some sperm into the uterus.

Fertility Awareness Methods

For many users of these methods, their main advantage is that they are considered acceptable by the Roman Catholic Church. The four contraceptive methods known as **fertility awareness** are based on avoiding intercourse during the fertile phase of a woman's menstrual cycle. The methods differ in the way in which they identify the woman's fertile period.

To use the *calendar method*, a woman must carefully keep records of her cycles for 12 months. Then, to figure out when to abstain from intercourse, the

woman subtracts 18 days from the shortest and 11 days from the longest of her previous 12 menstrual cycles. If, for example, her cycles last from 26 to 29 days, she needs to avoid intercourse from day 8 through day 18 of each cycle (Merck & Co., 2009a).

The second fertility awareness method, the *basal body temperature method*, is based on the knowledge that a woman's body temperature drops slightly before ovulation and rises slightly after ovulation. After about 3 months of daily record keeping, a woman's temperature patterns usually become apparent.

A third fertility awareness approach, the *cervical mucus (ovulation) method*, is based on changes in cervical secretions throughout the menstrual cycle. Before ovulation, cervical mucus increases and is clear and slippery. During ovulation, some women can detect a slight change in the texture of the mucus, finding that it can be formed into an elastic thread that can be stretched between thumb and finger. After ovulation, cervical secretions become cloudy and sticky and decrease in quantity. One problem with this approach is the potential misreading of changes in the composition of the cervical mucus because of vaginal infections and vaginal products or medications.

A fourth fertility awareness approach, the *symptothermal method*, combines two rhythm methods to gain better effectiveness. The woman records changes in her cervical mucus (symptoms) and her basal body temperature (thermal). Combining the two is thought to give a more accurate method of determining the time of ovulation (Hyde & DeLamater, 2003).

Fertility awareness methods of contraception are not recommended for women who have very irregular menstrual cycles (about 15% of all women) and for women for whom pregnancy would be a serious problem. Proponents of fertility awareness methods argue that they are about 90% effective. In practice, however, an estimated 25% of women using these methods become pregnant in any given year (Alan Guttmacher Institute, 2009a).

Making Contraceptive Decisions

In making rational choices about contraceptive methods, individuals and couples should take into account several considerations (Hyde & DeLamater, 2008; Kelly, 2004). First, people need to consider the health risks of each method in terms of personal and family medical history. IUDs are not recommended for young women without children, for example, because they increase the risk of pelvic infection and possible infertility. Oral contraceptives should be used only after an evaluation of a woman's medical history.

Individuals must ask themselves, How important is it to me to avoid pregnancy at this point in life? Oral contraceptives offer by far the best protection against pregnancy, but there are some risks associated with them. Condoms, diaphragms, and cervical caps have fewer related health problems than oral contraceptives, but the risk of pregnancy is greater with these methods. To maximize their effectiveness, they need to be used in combination with a spermicide and used every time a couple has intercourse.

The type of relationship one is involved in should also be considered. Barrier methods require more motivation than the pill because they generally must be used at or close to the time of intercourse. Both partners must have a well-developed sense of responsibility to ensure the success of these methods. Barrier methods often require cooperation between partners. If one has sexual intercourse only infrequently, barrier methods may make more sense than oral contraceptives.

Condom use, preferably with a spermicide, is critically important if there is any possibility of the presence of a sexually transmitted disease. Condoms are especially important for those who are not in an exclusive, long-term relationship. They are also useful for women taking oral contraceptives, because cervical changes that occur during hormone use can increase the likelihood of contracting certain diseases.

Both partners should consider convenience and comfort. Oral contraceptives rank high in both regards, although, again, the possible negative side effects and health risks of the pill need to be factored into the equation. If a woman has difficulty remembering to take her pills, another method might be better.

The ease and cost of obtaining and continuing each method also need to be considered. Oral contraceptives require an annual pelvic exam and periodic medical checkups. Pills are also more expensive than barrier methods. Diaphragms and cervical caps require an initial examination and fitting. Norplant requires implantation by a physician.

Finally, religious and philosophical beliefs should be taken into consideration. Abstinence is the only acceptable approach for some individuals before marriage.

For those who wish to make responsible contraceptive choices, it is important to discuss the options with competent professionals. Both men and women should be knowledgeable in this very important subject area.

Abortion

Each year more than six million women in the United States become pregnant. Slightly fewer than two-thirds of these pregnancies result in live births, 24% end in abortions, and the rest end in miscarriage. About half of all pregnancies in this country are unplanned, and 42% of these unintended pregnancies are terminated by abortion. Worldwide statistics are similar: nearly two in five women who become pregnant have either an abortion or an unplanned birth. On the basis of current abortion rates, it is estimated that one in three women in the United States will have had an abortion by age 45 (Alan Guttmacher Institute, 2009a, c).

Strictly defined, **abortion** is the expulsion of a fetus from the uterus before the fetus has developed sufficiently to survive outside the mother (before viability). In common usage, abortion refers only to artificially induced expulsions, those caused by mechanical means or drugs. Spontaneous abortions, those that occur naturally and are not induced by mechanical means or drugs, are commonly called *miscarriages* (Insel & Roth, 2010).

Abortion Laws

For more than two centuries in early U.S. history (from the 1600s to the early 1900s), abortion was not a crime if it was performed before *quickening* (fetal movement, which begins at approximately 20 weeks). United States abortion laws followed English common law during this period. An antiabortion movement began in the early 1800s. It was led by physicians who argued against the validity of the concept of quickening and who opposed the performing of abortions by untrained people, who also threatened physician control of medical services. The controversy over abortion attracted minimal attention until the mid-1800s, when newspapers began advertising abortion preparations. Opponents of such medicines argued that women were using them as birth control measures and that women could also hide extramarital affairs through their use. The medicines were seen by some as evidence that immorality and corruption threatened America. By the early 1900s, virtually all states (at the urging of male politicians; women could not vote at the time) had passed antiabortion laws (Insel & Roth, 2010).

Social pressure for the legalization of abortion grew in the 1960s. Despite laws against abortion, many illegal abortions were being performed. Women sometimes died because of nonsterile or medically inadequate procedures. During this period, courts began to invalidate many of the state laws on the grounds of constitutional vagueness and a violation of the right to privacy (Insel & Roth, 2010).

In the 1973 landmark case *Roe* v. *Wade*, the U.S. Supreme Court made abortion legal by denying the states the right to regulate early abortions. The high court replaced the restrictions most states still imposed at that time with new standards governing abortion decisions. The Court conceptualized pregnancy in three parts (trimesters) and gave pregnant women more options in regard to abortion in the first trimester (3 months) than in the second or third trimester. The Court ruled that during the first trimester, the abortion decision must be left to the judgment of the woman and her physician. The Court ruled that during the second trimester, the right to abortion remained but that a state could regulate certain factors in an effort to protect the health of the woman, such as the type of facility in which an abortion could be performed. The Supreme Court ruled that during the third trimester, the period of pregnancy in which the fetus is viable outside the uterus, a state could regulate and even ban all abortions except in situations in which they were necessary to preserve the mother's life or health (Hyde & DeLamater, 2003; Insel & Roth, 2010). In addition, in 1976, the Supreme Court decided in *Planned Parenthood* v. *Danforth* that neither the parents of a minor nor the husband of a woman had the right to veto a woman's decision to have an abortion.

Today, opponents of abortion remain unsuccessful in their efforts to overturn *Roe v. Wade* or amend the U.S. Constitution to outlaw abortion. But rulings by the Supreme Court allow states to regulate abortion throughout pregnancy as long as they do not impose an "undue burden" on women seeking the procedure. The Alan Guttmacher Institute (2008) argues that this has resulted in many states and

Congress passing a variety of laws that in effect have reduced women's access to abortion:

- Thirty-five states currently have parental consent or notification laws for minors who are seeking an abortion. The Supreme Court ruled, however, that minors must have an alternative to parent involvement, such as the ability to seek a court order authorizing the procedure. (Even without parental involvement laws, researchers have found, 6 out of 10 minors who have an abortion have said that at least one parent knew about it.)
- Congress has barred the use of federal Medicaid funds to pay for abortions for low-income women, except when the woman's life would be endangered by a full-term pregnancy or in cases of rape or incest.
- Seventeen states use public funds to pay for abortions for some poor women, but only four states do so voluntarily. The remainder do so under court order. About 13% of all abortions in this country are paid for by public funds; virtually all these funds come from state governments.
- Family planning clinics funded under Title X of the federal Public Health Service Act have helped women prevent 20 million unintended pregnancies in the past 20 years. An estimated 9 million of these pregnancies would have been terminated by abortion.

Today, pro-life groups on the local, state, and national levels continue to seek legislation that would make abortion a crime; at the same time, pro-choice groups work to ensure a woman's right to an abortion if she so chooses. Although the outcome of the abortion controversy cannot be predicted, it is unlikely that either side will give up the fight.

Public opinion data on abortion in the United States have remained relatively stable for more than a decade, according to the Pew Forum on Religion & Public Life (2008). Slight majorities of Americans between 1995 and 2008 indicate support for keeping abortion legal in all or most cases. The percentages of those in favor of legal abortion have fluctuated between 49% and 61% during the 13-year period. Fewer Americans have expressed support for making abortion illegal in all or most cases, ranging from a low of 36% to a high of 48% (Pew, 2008).

At the same time, large majorities of Americans have expressed support for the 1973 *Roe v. Wade* decision that established constitutional protections for women seeking an abortion. For example, a survey in October 1989 found that more than 6 in 10 Americans (61%) said they would oppose seeing the U.S. Supreme Court completely overturn the *Roe* decision, while only 1 in 3 (33%) favored overturning the decision. In November, 2005, two-thirds (65%) continued to express support for keeping *Roe* as the law of the land, while 26% supported overturning the decision (Pew, 2008).

An August 2008 poll conducted by the Pew Forum on Religion & Public Life and the Pew Research Center for People & the Press confirmed that American opinion on the issue remained in line with historical trends. A slim majority of the public (54%) said abortion should be legal in all (17%) or most (37%) cases, while 41% said abortion should be illegal in all (15%) or most (26%) cases (Pew, 2008).

Abortion Procedures

About 90% of the abortions in the United States are performed within the first trimester (Kelly, 2008). The type of procedure used generally depends on how far along a woman is in her pregnancy. We will explain a variety of abortion procedures in this section, beginning with those used early in pregnancy and concluding with those employed later in pregnancy.

Mifepristone. The drug mifepristone (commonly known as RU-486) combined with misoprostol has been used widely in Europe for early abortions and is now used routinely in the United States (Kelly, 2004). Mifepristone blocks uterine absorption of the hormone progesterone, causing the uterine lining and any fertilized egg to shed. Combined with misoprostol 2 days later, which increases contractions of the uterus and helps expel the embryo, this method has fewer health risks than surgical abortion and is effective 96% of the time. Researchers report few serious medical problems associated with this method. Some of the side effects include cramping, abdominal pain, and bleeding like that of a heavy period (Merck, 2009b).

Vacuum Aspiration. Also called *vacuum suction* or *vacuum curettage*, **vacuum aspiration** is a method of abortion that is performed during the first trimester of pregnancy, up to 12 weeks from the beginning of the last menstrual period. It is the most common abortion procedure used during the first trimester in the United States. Vacuum aspiration is performed

on an outpatient basis and requires a local or a general anesthetic. It takes about 10 to 15 minutes, although the woman stays in the doctor's office, clinic, or hospital for a few hours afterward.

Medical professionals prepare the woman for the procedure in a manner similar to preparing for a pelvic examination. An instrument is then inserted into the vagina to dilate the opening of the cervix. The end of a nonflexible tube connected to a suction apparatus is inserted through the cervix into the uterus. The contents of the uterus, including fetal tissue, are then sucked out.

Vacuum aspiration is the most common method of early abortion in the United States for two reasons: It is simple, and complications are rare and usually minor. It does, however, pose a risk of uterine perforation; infection, with fever and chills; hemorrhaging; unsuccessful abortion, in which the fetus continues to grow; and failure to remove all the fetal material. Complications are most likely when the procedure is performed by an unqualified person who lacks professional training. Infection may occur if the woman fails to follow postprocedure instructions (Hatcher et al., 2007; Hyde & DeLamater, 2008; Kelly, 2008).

Dilation and Curettage. **Dilation and curettage (D & C)** is similar to vacuum aspiration but must be performed in a hospital under general anesthetic. It is performed between 8 and 20 weeks after the last menstrual period. By the beginning of the second trimester, the uterus has enlarged and its walls have become thinner. The contents of the uterus cannot be as easily removed by suction, and therefore the D & C procedure is used.

In a D & C, the cervix is dilated, and a sharp metal loop attached to the end of a long handle (the curette) is inserted into the uterus and used to scrape out the uterine contents. D & Cs are also performed to treat infertility and menstrual problems.

Vacuum aspiration is preferable to a D & C because the former is done on an outpatient basis, eliminating the expense of hospitalization and often the risk involved in the use of general anesthetics. D & Cs also cause more discomfort than vacuum aspiration, and the risks of uterine perforation, infection, and hemorrhaging are greater.

Dilation and evacuation (D & E) is a related procedure used between 13 and 16 weeks after the last menstrual period. D & E is similar to both D & C and vacuum aspiration, but it is a bit more complicated, requiring the use of forceps and suction. It is performed in a hospital or at a clinic (Kelly, 2008).

Induced Labor. Induced labor is a method of abortion performed late in the second trimester, generally in a hospital. In *saline-induced abortion*, the most common type of induced labor, a fine tube is inserted through the abdomen into the amniotic sac, and some amniotic fluid is removed. An equal amount of saline solution is then injected through the tube, causing labor and miscarriage to occur within a few hours. In *prostaglandin-induced abortion*, hormonelike substances called prostaglandins are injected into the amniotic sac, injected intravenously, or inserted by means of a vaginal suppository with similar results (Hyde & DeLamater, 2008).

Induced labor is the most common method of abortion for those pregnancies that have progressed late into the second trimester. Induced labor is both more costly and more hazardous than the methods explained earlier. Although serious complications are rare, they can occur. If the technique is done carelessly, saline solution can enter a blood vessel, inducing shock and possibly death. Also, a blood disorder is a possible, although rare, complication from induced labor.

Prostaglandin-induced abortion is preferable to saline-induced abortion because labor begins more quickly and is shorter. But saline-induced abortions do have advantages over prostaglandin-induced abortions: less risk of excessive bleeding, less risk of a retained placenta, less risk of a torn cervix as a result of too-rapid dilation, and less risk of the delivery of a live although nonviable fetus. Nausea, vomiting, and diarrhea are also more common with the prostaglandin method (Hyde & DeLamater, 2008).

Induced labor is physically more uncomfortable than the methods of abortion used earlier in pregnancy. It is also often more emotionally upsetting for the woman, because she experiences contractions for several hours and then expels a lifeless fetus (Kelly, 2008). Induced labor accounts for only 1% of abortions in the United States (Koonin, Kochanek, Smith, & Ramick, 1991).

Hysterotomy. A surgical method of abortion, **hysterotomy** is performed between 16 and 24 weeks after the last menstrual period. A cesarean section is performed, and the fetus is removed. Hysterotomies are relatively rare, but they are useful if the pregnancy has progressed to the late second trimester

and the woman's health leads physicians to conclude that neither of the induction methods is appropriate (Hyde & DeLamater, 2008).

Physical and Emotional Aspects of Abortion

The risk of complications from an abortion are minimal when the procedure is performed by trained professionals in hygienic settings. Fewer than 1% of U.S. abortion patients experience major complications from the procedure. The risk of death related to abortion in this country is less than 0.6 per 100,000 abortions, which is less than one-tenth of the risk of death associated with childbirth. However, in countries where abortion is illegal, 68,000 women die each year of abortion complications and many times this number are injured by unsafe procedures (Alan Guttmacher Institute, 2009d).

Infection is a possibility after an abortion. Women are advised to consult a physician if they have an elevated temperature, experience severe lower abdominal cramps or pain, experience heavy bleeding (heavier than their normal menstrual period), or if their menstrual period does not begin within 6 weeks after the abortion.

After an abortion, clinics commonly advise women to rest and to temporarily avoid heavy lifting, strenuous exercise, tub baths, swimming, tampons, and vaginal intercourse. The best advice would be to listen to your body and use common sense. It is important to avoid alcohol (which can increase bleeding) and douching (which can increase the risk of infection) (Boston Women's Health Book Collective, 2005).

Some women experience feelings of guilt after an abortion; others feel great relief that they are no longer pregnant. Still other women are ambivalent: happy not to be pregnant but sad about the abortion. Some of the emotional highs and lows may be related to hormonal adjustments and may cease after the woman's hormone levels return to normal. The intensity of feelings associated with an abortion generally diminishes as time passes, but some women experience anger, frustration, and guilt for many years (Boston Women's Health Book Collective, 2005; Kelly, 2008).

The American Psychological Association Task Force on Mental Health and Abortion has reviewed the most current research on the mental health factors associated with abortion, including the psychological responses following an abortion. The task force concluded, "The best scientific evidence published indicates that among adult women who have an *unplanned pregnancy* the relative risk of mental health problems is no greater if they have a single elective first-trimester abortion than if they deliver that pregnancy." The review team added, "The evidence regarding the relative mental health risks associated with multiple abortions is more equivocal. Positive associations observed between multiple abortions and poorer mental health may be linked to co-occurring risks that predispose a woman to both multiple unwanted pregnancies and mental health problems" (American Psychological Association, 2008, pp. 5–6).

The APA Task Force noted that "some women do experience sadness, grief, and feelings of loss following termination of a pregnancy, and some experience clinically significant disorders, including depression and anxiety." However, they added, they found "no evidence sufficient to support the claim that an observed association between abortion history and mental health was caused by the abortion *per se,* as opposed to other factors."

These other factors that are predictive of more negative psychological responses following a first-trimester abortion among women in the United States include "perceptions of stigma, need for secrecy, and low or anticipated low social support for the abortion decision; a prior history of mental health problems; personality factors such as low self-esteem and use of avoidance and denial coping strategies; and characteristics of the particular pregnancy, including the extent to which the woman wanted and felt committed to it."

To summarize, "Across studies, prior mental health emerged as the strongest predictor of postabortion mental health. Many of these same factors also predict negative psychological reactions to other types of stressful life events, including childbirth, and, hence, are not uniquely predictive of psychological responses to abortion" (American Psychological Association, 2008, pp. 5–7).

Adolescents and Abortion

One of the controversies swirling around abortion is whether parents have the right to give consent or be notified when their adolescent child seeks an abortion. Though abortion is legal in the United States, many states require consent or notification. Legislators passing these laws argue that parental consent is justified

by a number of assumptions, including the high risk of psychological harm from abortion; the adolescents' inability to make an informed decision; and the benefits of having parents involved in the decision-making process (Adler, Ozer, & Tschann, 2003).

Researchers argue, however, that empirical data raise questions about the high risk of psychological harm. The data do not suggest that legal minors are at heightened risk for serious psychological harm when compared to adult abortion patients or peers who have not had an abortion. Further, research indicates that adolescent abortion patients actually may be more competent than pregnant adolescents not considering an abortion. Researchers also question adolescents' supposed inability to make informed decisions about abortion. In locations where it has been studied, virtually all adolescents' requests for a judge's approval to have an abortion without notifying parents have been granted by judges assessing the adolescent's competence and reasons for requesting the judicial bypass. Finally, although parental involvement laws aim to promote family communication and functioning, there are few data to actually demonstrate this contention (Adler et al., 2003).

Decision Making and Unintended Pregnancy

When a woman suspects she is unintentionally pregnant, she should first confirm the pregnancy through a formal laboratory test. A physical examination by a physician will help establish how long she has been pregnant. After pregnancy has been conclusively established, she can weigh her options carefully: carrying the child to term and keeping it, carrying the child to term and relinquishing it for adoption, or having an abortion. This is a decision that can greatly affect an individual's life. A woman facing this difficult decision should talk with several people she respects and trusts and who can remain calm and objective during the discussion (Insel & Roth, 2010; Kelly, 2008).

Married couples commonly choose to keep an unplanned baby, although abortion remains an option for many married women, especially those who feel they already have as many children as they can care for properly. Couples who are not married may choose to get married, although many authorities believe that pregnancy is not by itself a sufficient reason for marriage. Some young parents receive help rearing their babies from their own parents and other relatives while they complete their educations and become more capable of assuming parental responsibilities. However, grandparents are often less than excited about becoming "parents" once again.

Adoption agencies today have difficulty finding babies for all the couples who wish to adopt. The high rate of abortion has contributed to this situation, along with society's generally negative attitude toward relinquishing babies for adoption. Social attitudes are reflected in the expression "giving up the child for adoption." The majority of adolescent mothers who carry their babies to term thus choose to keep them, despite the difficulties young mothers face in this situation. Adoption is seen as a viable alternative by many people, however. Some agencies are making an effort to ease the pain young mothers may feel by allowing them to have continued contact with the child and its adoptive parents.

Many people have strong feelings about the dilemma of unintended pregnancy and are eager to influence the decision in one direction or another. The individual or couple experiencing the dilemma, however, carries the responsibility for the decision. Whatever the decision, an unintended pregnancy is often a very lonely and stressful time in a woman's life.

Preventing Abortion

The Planned Parenthood Federation of America argues that reducing the number of unintended pregnancies in this country will reduce the number of abortions. Using this line of thought, Planned Parenthood (2006) advocates the following ways to prevent abortion:

- *Make contraceptives more easily available.* Every public dollar spent on family planning saves at least two tax dollars in the next year alone in reduced health and welfare services associated with unintended births.
- *Provide young people with a better teacher than experience.* Support sex education programs instead of hoping that sex will disappear if no one talks about it.
- *Increase the involvement of men.* No woman ever made herself pregnant. Help men recognize equal responsibility in all aspects of sexuality, including obtaining and using contraception.
- *Develop new birth control methods that are temporary, safe, effective, easy to use, and without side effects.* Increase government support for research in this area.

- *Make America friendlier to children.* Research by the Alan Guttmacher Institute indicates that the United States has one of the highest teen pregnancy rates among the developed nations of the world. Countries with lower rates were found to be more realistic about accepting sexuality and having open access to family planning services.

Suggested Readings

Alan Guttmacher Institute. (2009). A nonprofit organization focused on sexual and reproductive health research, policy analysis and public education. Web site: www.guttmacher.org/.

American Psychological Association. (2008, August 13). Report of the APA Task Force on Mental Health and Abortion. Web site: http://www.apa.-org/releases/abortion-report.pdf. A comprehensive review of the most current research on the mental health factors associated with abortion, including the psychological responses following an abortion.

Boston Women's Health Book Collective. (2005). *Our bodies, ourselves: A new edition for a new era.* New York: Touchstone/Simon & Schuster. The classic book for women.

Boston Women's Health Book Collective. (2008). *Our bodies, ourselves: Pregnancy and birth.* New York: Touchstone/Simon & Schuster.

Consumer Reports. (2005, February). *CR's guide to contraception,* pps. 34–38. A practical and objective look at pills, patches, rings, mini-pills, injections, male and female condoms, progestin, IUDs, diaphragms, cervical caps, sterilization, spermicides, the rhythm method, and vasectomy from the respected nonprofit and independent consumer research magazine.

Hatcher, R. A., Trussell, J., Nelson, A. L., Cates, W. Jr., Stewart, F. H., & Kowal, D. (2007). *Contraceptive technology* (19th rev. ed.). New York: Ardent Media. Perhaps the most authoritative resource available on contraception.

Hyde, J. S., & DeLamater, J. D. (2008). *Understanding human sexuality* (10th ed.). New York: McGraw-Hill Higher Education. Everything you ever wanted to know about sex, and more. Comprehensive, thorough.

Kelly, G. F. (2008). *Sexuality today* (9th ed.). New York: McGraw-Hill Higher Education. Another very useful and comprehensive resource, covering a broad spectrum of issues on sex and sexuality.

Merck & Co. (2009). *Merck manuals online medical library, home edition for patients and caregivers.* An excellent online resource. Web site: http://www.merck.com.

Planned Parenthood. (2009). Information on birth control, abortion, sexually transmitted diseases (STDs), pregnancy, and emergency contraception (the morning-after pill). Website: http://www.plannedparenthood.org/.

Key Terms

abortion
abortion laws
abortion procedures
adolescents and abortion
barrier methods of contraception
cervical cap
condom
contraception
Depo-Provera (DMPA)
diaphragm
dilation and curettage (D & C)
douching
estrogen
fertility awareness
hysterotomy
intrauterine devices (IUDs)
Mifepristone
oral contraceptives
physical and emotional aspects of abortion
preventing abortion
progestin
spermicides
sterilization
tuba1 ligation
vacuum aspiration
vasectomy
withdrawal