

Abortion Methods

There are many methods of abortion used in Canada. The method used depends mainly on the stage of the pregnancy and the size of the developing fetus. Other factors considered include the status of the woman's health, personal preference, and where the abortion will occur.

Included in the following section are the methods reportedly used in Canada, however, abortion methods are incomplete in statistical data. Because recording and reporting of abortions in Canada is inconsistent and incomplete, it is unclear exactly how many abortions occur nationally by each method listed below.

Surgical Abortion Methods include:

- Suction Aspiration (surgical aspiration, vacuum abortion, suction dilation and curettage (D&C))
- Menstrual Aspiration (menstrual extraction, manual aspiration)
Dilation and Evacuation
- Dilation and Extraction (D&X) (intact D&E, partial birth abortion)
Surgical Dilatation and Curettage (D&C)
- Hysterotomy and Hysterectomy

Medical Abortion Methods include:

- Methotrexate and Vaginal or Oral Misoprostol
Misoprostol
- Mifepristone and Misoprostol
- Labor Induction Methods (instillation methods)
- Saline Abortion
- Urea
- Prostaglandins

Surgical abortion

Surgical abortion refers to abortion done using surgical instruments. Procedures vary due to the stage of the pregnancy and size of the fetus at the time of the abortion.

Suction Aspiration (surgical aspiration, vacuum abortion, suction dilation and curettage (D&C))

Suction aspiration was the method used for approximately 90% of all abortions reported in Canada, and is generally used between six and 14 weeks of pregnancy.

Suction curettage can be done under general anesthetic, but is usually done in a clinic with local anesthetic injected into the cervix to control pain. The cervix is forced open with a compressed seaweed preparation called laminaria that swells as moisture is absorbed, or a series of rigid rods. Sometimes the prostaglandin Misoprostol is used to soften the cervix and make it easier to dilate.

A hollow plastic tube is inserted into the uterus through the cervix and attached to a suction machine. The suction tears the fetus into small parts, which are sucked through the tube into a collection bottle. Often a sharp loop-shaped knife called a curette is then inserted into the uterus to loosen any remaining tissue so that it can be suctioned out. When the suctioning is finished, the abortionist must examine the fetal parts and tissue to see if the abortion is complete.

Menstrual Aspiration (menstrual extraction, manual aspiration)

Less than 1% of abortions reported in Canada used this method. Before abortion was legalized, the term 'menstrual extraction' was used to disguise the performance of an early suction abortion up to seven weeks' gestation, sometimes even before a pregnancy was confirmed. The term is misleading, since either the embryo (if the woman is pregnant), or the uterine lining (if she is not pregnant) is suctioned out. Currently, menstrual aspiration refers to an early abortion from three to 10 weeks' gestation, using a syringe for suction. A thin hollow tube is inserted into the slightly dilated cervix. The tube is attached to a large syringe and the embryo is suctioned out.

Dilation and Evacuation (D&E)

Statistics are not clear on how many D&E abortions occur in Canada each year. At least 11% of abortions in Canada occurred after 13 weeks' gestation. In the U.S., the majority of abortions that occur after 13 weeks are performed using a variation of this method.

D&E abortion refers to an abortion done using forceps to dismember and extract the fetus instead of, or together with, suction. In reality, a combination of methods is generally used in abortion after 13 weeks. As the fetus grows larger and its bones become harder, the fetus becomes more difficult to extract. The cervix must be opened wider, and the head of the fetus is large and must be crushed before it can be removed. Bone fragments are sharp and must be carefully removed to avoid damage to the uterus and cervix. The fetal parts removed must be

identified to make sure the abortion is complete, and no parts are left in the uterus. Suction is used for a final clean out of any bits of fetal or placental tissue that may remain.

Sometimes medications such as digoxin or potassium chloride are injected into the fetus through the woman's abdomen, to kill it before the D&E procedure.

After 19 to 20 weeks, a solution of urea or saline is sometimes injected into the amniotic sac before the abortion. This kills the fetus and stimulates contractions. Urea also begins the breakdown of fetal bones and other tissue to make removal of the parts easier for the abortionist and less painful for the mother. Oxytocin may be used to stimulate contractions and bring about delivery of the fetus.

Dilation and Extraction (D&X) (intact D&E, partial birth abortion)

There are no laws in Canada restricting abortion. Since abortion reporting and recording is inconsistent and incomplete across Canada, it is not known if, or how many, abortions occur by this method in Canada each year.

D&X abortion is a variation of the D&E method and is used after the first 20 weeks of pregnancy. Laminaria treatment over several days causes wide cervical dilation. The abortionist, guided by ultrasound, uses forceps to grasp the fetus and position it face down and feet first. The fetus, intact and often still alive at this point, is delivered up to the head. The head is too big to pass through the cervix. After puncturing the base of the skull, the brain is suctioned out, the skull collapses, and the dead fetus is delivered. Digoxin, potassium chloride, saline or urea are sometimes used to kill the fetus before delivery.

Surgical Dilatation and Curettage (D&C)

Approximately 6% of abortions reported in Canada used this method.

Local or general anesthetic is given to the mother before her cervix is dilated. The cervix is dilated with laminaria or rigid dilators; sometimes, the prostaglandin Misoprostol is also given to soften and dilate the cervix.

A loop-shaped knife called a curette is inserted through the cervix. The curette cuts the fetus and its placenta from the uterine wall and breaks it up. Then the fetal parts and the placenta are scraped out of the uterus through the cervix and discarded.

Hysterotomy and Hysterectomy

Hysterotomy refers to a caesarean delivery as an abortion method. The woman's abdomen and uterus are opened surgically. The fetus is lifted out, the placenta is delivered, and the umbilical

cord is clamped. If no chemical has been injected to kill the fetus prior to this point, the fetus is often still alive. Hysterotomy is sometimes used in situations where there is a uterine abnormality, which would make the more common abortion methods difficult or impossible.

Hysterectomy is the removal of the uterus. When used as abortion methods, these procedures have a higher risk of major complications and death than any other method.

There were no reports of either method being used for abortion in 2004 in Canada.

Medical Abortion

In Canada prior to 2017, approximately 3% of reported abortions were done using pharmaceutical drugs, although with the advent of the abortion drug RU486 that percentage is likely much higher. Since the abortion drug called Mifegymiso was made available in 2017, 45,363 prescription claims were made between August 10, 2017 and December 31, 2020 in Ontario alone.

Medical abortion is considered successful if complete expulsion of the embryo and placenta occurs without the need for surgery to complete the abortion.

Medical abortion is not commonly recommended in pregnancies past the first 49-63 days because of the increase in incomplete abortion, heavy and prolonged uterine bleeding and ongoing pregnancy past this stage. When severe bleeding or pain is present, surgical techniques are used to complete the abortion.

Medical abortion takes longer than surgical abortion, is less effective, and requires more clinic visits. Medical abortion results in heavier, more prolonged bleeding, and more pain, nausea and vomiting than surgical abortion. Medical abortion has a 10 fold greater risk of serious infection and death than surgical (suction curettage) abortion.

Medical abortion is preferred over surgical abortion by some women because of its effectiveness in early pregnancy, or because it does not require anesthetics or use of surgical instruments. Other women prefer it because it is more private and possibly more accessible, and because it may more closely resemble natural miscarriage.

Most medical abortions involve the use of a combination of drugs that work together to bring about the abortion over a period of a number of days or weeks.

Methotrexate and Vaginal or Oral Misoprostol

In Canada, prior to access to Mifegymiso or the RU486 drug, methotrexate and misoprostol were used together for medical abortion up to 49 days of pregnancy.

Methotrexate breaks down the cell layer that attaches the embryo to the wall of the uterus, depriving the embryo of essential nutrients and resulting in its death.

Misoprostol is a synthetic prostaglandin that causes the cervix to soften and dilate,^{34, 35} and the uterus to contract and expel the embryo or fetus.

Abortion with methotrexate and misoprostol required several clinic visits. During the first visit, methotrexate is injected, followed at 2-7 days with misoprostol pills at home or at a clinic, either inserted into the vagina or taken by mouth. A follow-up visit was required after 1 to 3 weeks to determine if the abortion has occurred.

The methotrexate and misoprostol abortion regimen causes complete abortion in 70-97% of cases. While most of the abortions occur within the first hours or days after taking the misoprostol, 20 to 35% will take up to several weeks. A surgical abortion is scheduled to complete the abortion if it has not occurred by that point because the drugs used can cause birth defects.

Side effects of medical abortion using methotrexate and misoprostol include: significant cramping pain and heavy bleeding during the abortion, along with nausea, vomiting, diarrhea, headache, fever, and chills; prolonged bleeding for one to seven weeks afterwards, and infection; birth defects if the pregnancy is ongoing and the fetus survives.

Misoprostol

Misoprostol is a synthetic prostaglandin that causes the cervix to soften and dilate, and the uterus to contract and expel the embryo or fetus.

Misoprostol is used vaginally in abortions up to 56 days since the first day of the last menstrual period.

When used alone, Misoprostol causes complete abortion in 22-94% of cases.

Early side effects are worse with this method than with other methods of medical abortion, and include pain, dizziness, nausea, vomiting, diarrhea, chills and rashes. Heavy and prolonged bleeding and infection are associated with medical abortion in general. Misoprostol is generally used with another drug because of the higher incidence of side effects and lower rate of effectiveness when it is used alone.

Misoprostol is commonly used in surgical abortions as well, to soften and dilate the cervix, and to reduce bleeding.

Mifepristone and Misoprostol

Mifepristone, also known as RU-486 and patented as Mifegymiso in Canada today, used together with misoprostol is the most commonly used medical abortion combination worldwide.

Mifepristone is now approved for abortion in Canada. In 2001, the only Canadian trial of Mifepristone was stopped after the death of a woman from toxic shock brought on by a bacterial infection related to her abortion;⁶⁴ similar deaths were recorded elsewhere.

Mifepristone causes abortion by blocking the action of progesterone. Progesterone prepares the uterine lining for implantation and is essential for maintenance of the pregnancy. Progesterone also suppresses uterine contractions. However, the action of Mifepristone can be reversed with a high dose of progesterone.

Mifepristone causes the uterine lining to break down, resulting in detachment of the embryo from its source of nutrition. It causes the cervix to soften and dilate. It also makes the body release prostaglandins and increases the effects of these prostaglandins in causing the uterus to contract.

Mifepristone/misoprostol abortions are quicker than methotrexate/misoprostol abortions. Both regimens have similar rates of complete abortion, side effects and complications. Serious infection and heavy, prolonged bleeding are the most notable side effects, along with nausea, vomiting, diarrhea and headache.

Labor induction methods (instillation methods)

In Canada less than 1% of reported abortions used labor induction methods, such as instillation of saline, urea or prostaglandin solutions into the amniotic sac.

Saline abortion

Saline abortion refers to the injection of a concentrated salt solution into the amniotic sac through the mother's abdomen. The solution burns and kills the fetus, stops placental functioning, and stimulates labor.

Saline abortions are no longer in Canada, due to maternal deaths and a high level of side effects.

Urea

No urea abortions were reported in Canada.⁷⁵ Although urea instillation abortions are safer than saline abortions, the abortion takes a long time to occur. Urea is sometimes used in D&E abortions to kill the fetus and soften its bones to make it easier to remove.⁷

Prostaglandins

Less than 1% of reported abortions in Canada were listed as prostaglandin abortions.⁷⁸ Prostaglandins can be injected into the amniotic sac or taken by the mother to induce abortion. However, due to a high rate of side effects, as well as cases of temporary fetal survival, this is not a common abortion method. Sometimes saline or urea are injected into the amniotic sac to ensure the fetus will be dead when it is delivered, or the fetus is killed by an injection of potassium chloride or digoxin into the fetal heart or amniotic sac.

Other reported methods

In addition to the methods listed above, there are other methods of abortion infrequently used in Canada. Combinations of the above methods may also be listed under “Other” in statistical reports.