

Tubal Reanastomosis



**Southern Ontario
Fertility Technologies**

Introduction

Tubal ligation is the most common form of permanent birth control in Canada. Despite carefully making the decision to proceed with this, up to 3% of woman eventually regret having had their 'tubal'. About 1% will actually seek a medical opinion about reversing their tubal and over half of these women will have a surgical procedure to open their tubes.

Methods of Tubal Ligation

The method of tubal ligation has a very large bearing on the possibility of tubal reversal. Methods that destroy the least amount of tube are most successfully reversed. We will attempt to obtain an **operative report from the tubal ligation**. This not only should describe the method of tubal ligation but also whether any pre-existing pelvic conditions were present such as endometriosis or pelvic adhesions. These also have a bearing on the success of the reanastomosis.

Most laparoscopic tubal ligations are now performed using "**Fulcie Clips**". The Fulcie Clip is essentially a 3 millimeter wide clamp which is placed across the narrow part of the fallopian tube about 2 centimeters after it leaves the uterus. As long as the original placement of the clip was not too close to the uterus, this type of tubal ligation can be easily reversed.

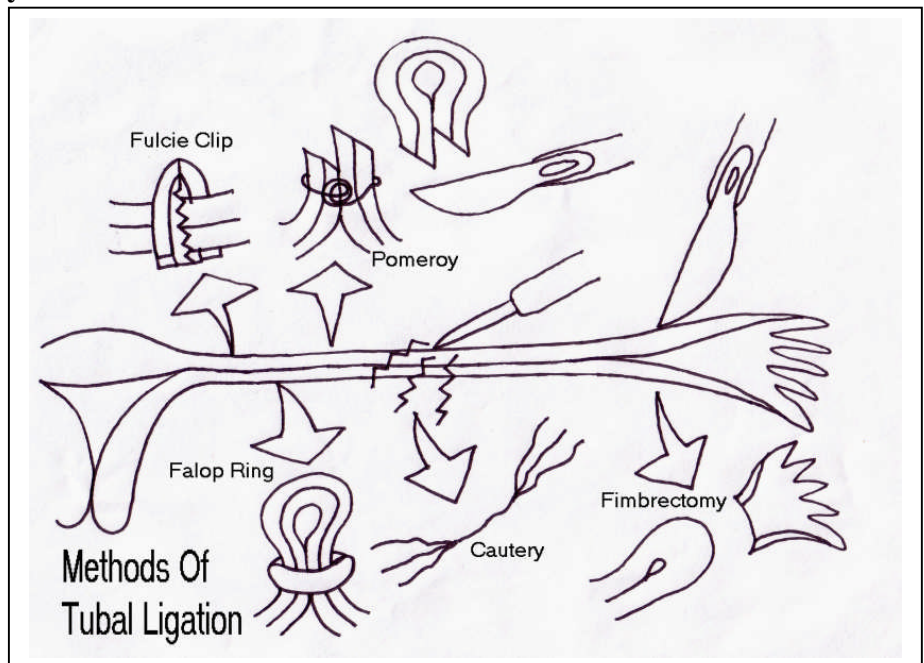
"**Falop Rings**" are another method of tubal ligation. They are essentially very small rubber bands that the tube is drawn into. They destroy more tube than the Fulcie clip but are usually still very successfully reversed.

Sometimes, if a tubal is done at the time of a caesarian section, a **Pomeroy method** may be used. With this technique a loop of the tube is tied off with a suture and the loop of tube excised. More of the tube is destroyed and the success rates are lower.

Monopolar cautery is used for destruction of the tubes in some situations. This is often associated with a low success at reversal and often a laparoscopy may be done before it is attempted to evaluate the amount of tube left.

Occasionally, if the tubal has been done at the time of caesarian section, a **fimbrectomy** will be done. These cannot be reversed. All these methods are depicted in the diagram below.

As you can see from the above discussion, it is



important to review a copy of the operative report from the tubal ligation. If this is not available, sometimes a diagnostic laparoscopy will clarify how much viable tube remains.

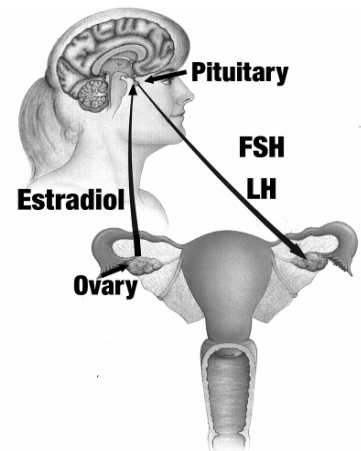
Assessment of Other Fertility Factors

Tubal reversal is less successful if there are other conditions in the pelvis which may effect fertility. These conditions could include endometriosis or adhesions. These conditions may be suspected if there is pelvic pain or painful periods. They can also be indicated on the operative report when the tubal ligation was performed. Often if there is a high suspicion of these conditions, a laparoscopy may be considered as part of the diagnostic workup before proceeding with reanastomosis.

Often a tubal reanastomosis is considered when a new relationship develops. For the women, this will often be at an older age than when she had her first children. The average age of “running out of eggs which will produce a pregnancy” is 41 years. Fertility begins to decline after age 34 years. It is often important to evaluate the “ovarian reserve” using a day-3 FSH or even a clomiphene challenge test.

Menstruation and ovulation are complex processes depending on the action of hormones released from the ovary, pituitary and hypothalamus. **Follicle stimulating hormone (FSH)** is released by the pituitary and stimulates both egg maturation and production of estrogen (estradiol). The estradiol “feeds-back” to the pituitary to cause a decrease in the secretion of FSH. If the ovary is unable to respond to FSH, the pituitary attempts to compensate by producing more FSH. This may cause the remaining level of FSH on day three to be elevated indicating the ovaries decreased functional ability.

The male in the relationship may have had children in the past. However, a sperm count should always be performed on the male partner before proceeding to surgery.



Description of the Operation

Tubal reanastomosis is done by **laparotomy**. That means it requires a small abdominal incision. The incision used is just above the pubic hairline and is 4 or 5 inches in length. It is often referred to as the “bikini incision”.

The clips or rings cause the portion of the tube under and around them to become scarred and lose its opening. If the clip is still attached to the tube, it is removed. Also, the scarred portion of the tube has to be removed as far as required to reach healthy tube on both sides. The two healthy ends of the tube are then brought together using a microscope and sutures that are much finer than hair.

After the surgery, you will have a choice of staying overnight in the hospital or going home. Because the incision is small and local freezing is put in it at the same time as the stitches, you may feel comfortable enough to go home the same day as the surgery. Very rarely, we will arrange home care so that a nurse can visit you at home and give you an injectable painkiller if needed. Usually Tylenol #3 or Percocet will be enough to control the pain. However, you do have the option to remain in hospital overnight.

The sutures will be below the skin and are absorbable. If any redness, discharge or increasing pain develops in the area of the incision you should have it looked at by a physician. A follow-up appointment is usually arranged with the clinic in 2 weeks. Physical activity should increase as it becomes comfortable. Resuming work can be when you feel up to it. It is usually about 2 weeks in a sedentary job and up to 6 weeks for very physical jobs.

Success Rates

Success rates depend on many factors. The surgical procedure will be discussed with you in the postoperative visit. Sometimes, unexpected factors (adhesions, clip placement very close to the uterus) may be found at the time of surgery, which will affect the success rate.

Success is also affected by female age and other factors, which will be known before surgery (sperm count, FSH).

In general, the chance of at least one (and usually both) tubes being open after the surgery is **90%**. The chance of an intrauterine pregnancy after the surgery is up to **70%**. The chance of an ectopic pregnancy (one caught in the tube) is about **5%**. The chance of a spontaneous pregnancy may be slightly decreased by female age. It may be also decreased if at the time of the reanastomosis, it is found the tubal was done too closely along the tube to the uterus.

Costs

Tubal reanastomosis is not covered by OHIP. The total cost of the procedure is **\$3,164.00 in total**.

The **hospital charges \$1,000.00** for the use of the operating room and the option of an overnight stay. The hospital also charges **\$164.00** for pre-admission testing. Patients who remain in hospital more than one night are charged a rate of \$470.00 per day (additional to the three thousand dollars). Staying more than a day is almost never necessary. The tubal reanastomosis surgery is performed at St. Thomas-Elgin General Hospital, 189 Elm St., PO Box 2007, St Thomas, Ontario, Canada, N5P 3W2. Tel (519)-631-1825. Patients are required to prepay the hospital through the business office prior to surgery. **A receipt will be given by the hospital for tax purposes or for reimbursement from your insurance company.**

The remainder, \$2000.00, must be paid at least one week prior to the surgery in order to reserve your operating room time. This can be paid at the clinic. **A receipt will be given for tax purposes or for reimbursement from your insurance company. Payment can be made with VISA, Mastercard or Debit.**

The **anesthesia fee is \$600.00**. The S.O.F.T. clinic will then pay the fee for you.

The **surgical fee is \$1,400.00**. This includes \$1,000.00 for the primary surgeon and \$400.00 for the assistant. The primary surgeon and assistant will be paid by S.O.F.T. on your behalf.

Complications

Complications of tubal reanastomosis are the **same as any surgical procedure**. A general anesthetic is required and, although it is very safe can cause complications on very rare occasions. The procedure itself can be complicated by infection or bleeding. Any infection that occurs is usually in the surgical incision and can be treated with drainage or antibiotics. Overall, less than 5% of patients will experience any complication.

The unique complication of this surgery is an increased risk of **ectopic pregnancy**. Despite the most careful surgical technique, once the fallopian tube has been reanastomosed, it is never the same and this increases the risk of the pregnancy being “caught” in the tube.

Ectopic Pregnancy

The risk of ectopic pregnancy in the general population is 1.5%. After tubal reanastomosis, the risk increases to **5%**. Because of this, once a pregnancy has been diagnosed, you will be asked to have an **early pregnancy vaginal ultrasound** at the clinic. This will usually be done at the S.O.F.T. clinic between 50 to 60 days after your last menstrual period. Call us as soon as you know you are pregnant.

Ectopic pregnancies can be treated surgically, usually by laparoscopy, or medically, using a drug called methotrexate. If an ectopic pregnancy should occur, these treatment options will be discussed with you.

Follow-up after the Surgery

You should have a **follow-up visit two weeks** after the surgery. At this visit we will make sure that the incision is healing well and provide you with the details of follow-up.

You should have one complete menstrual cycle before attempting a pregnancy (as long as your menstruation is 4 weeks after the surgery). This allows time for healing at the site where the tubes were sutured together.

You should then try for 3 to 6 months (you will be told the exact number of months at the time of this follow-up visit. If you are not pregnant after these months, a **hysterosalpingogram (HSG or tubal dye test) and a second visit** will have been arranged at the time of your first visit. An information sheet is available on hysterosalpingogram. If at least one Fallopian tube is open, some form of infertility treatment may be added (**clomiphene, intrauterine insemination (IUI)**) to your treatment. If the fallopian tubes are blocked, **in vitro fertilization (IVF)** may be the only alternative.

Alternatives

In vitro fertilization is an alternative to tubal reanastomosis. It is preferable, if severe male factor infertility is present. IVF as it allows the use of intracytoplasmic sperm injection (ICSI). Sometimes IVF may be the first choice if female infertility factors existed before the tubal ligation (I.E. severe endometriosis, partial tubal factor).

The cost of IVF is \$4,500.00 and drugs for an IVF cycle can range from \$2,500.00 to \$6,000.00. The chance of a pregnancy in the original cycle in ideal circumstances is about 40% at younger ages but drops in older women.

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Check out our web page at: **www.soft-infertility.com**