

NO-SCALPEL VASECTOMY (NSV)

What's in a name? There's more than one vasectomy technique.

About half a million American men each year choose vasectomy for permanent birth control. Vasectomy is considered nearly 100 percent effective, safe, and does not interfere with sexual pleasure.

Urologists and family practitioners perform vasectomy procedures. Your doctor will use one of many techniques that he knows from experience will be effective and appropriate to use for his patients. One technique that has grown in popularity with doctors and patients is known as the No-Scalpel Vasectomy (NSV). Both the traditional method and the no-scalpel technique are safe and effective in experienced hands.

Conventional or Traditional Vasectomy

The traditional vasectomy is a minor surgical procedure that is performed in the doctor's office, under local anesthetic, and is usually completed within 30 minutes. The surgeon uses a scalpel to make one or two incisions in the skin of the scrotum — one incision to access and expose the tiny vas deferens tubes from each testicle. The vas deferens is lifted, cut and tied, and often cauterized. The cut tubes are then returned to the scrotal sac and the incisions are then closed with three or four sutures (stitches).

The birth of No-Scalpel birth control.

In the early 1970s, a new procedure known as "No-Scalpel Vasectomy" was developed in China by Dr. Li Shunqiang. This minimally invasive procedure makes vasectomy more appealing to some men who are otherwise uncomfortable with the idea of having their genitals "cut". In the NSV, as with the traditional vasectomy, the skin of the scrotum is opened for the procedure. A local anesthetic is used in all cases to allow the patient to be comfortable during either procedure. During the past few decades, over 15 million No-Scalpel Vasectomies have been performed with this technique now used around the world.

Urologists and family practitioners who perform conventional vasectomies have generally taken additional training to perform the No-Scalpel procedure. If this method appeals to you, you may want to identify a physician who possesses this advanced training, expertise and experience for the No-Scalpel method.

How the No-Scalpel Vasectomy is performed.

As the name suggests, the "No-Scalpel" method does not involve a scalpel, but a small opening is still necessary. Key to the No-Scalpel Vasectomy are the special instruments that allow the procedure to be done with generally less manipulation of the patient's tissues. In a NSV procedure, the doctor usually locates the patient's vas deferens under the skin of the scrotum by hand, and holds the tiny tube in place with a small clamp. Small pointed forceps separate the layers of tissue and then creates a tiny puncture in the skin to form an opening for the vas deferens to be gently lifted out, then cut, tied, clipped and/or cauterized and put back into place.

The surgeon may elect to close the opening in the skin with sutures. However, because the skin puncture is much smaller than a conventional incision, it can close quite quickly without the necessity of suturing. Like a conventional vasectomy, local anesthetic is administered to allow the patient to be comfortable.

No-Scalpel Benefits.

Physicians who perform the no-scalpel method of vasectomy believe that their procedure produces less complications and discomfort with a faster recovery time. Other physicians who continue to use the standard technique do not believe that there is a significant advantage.

WHO IS THIS FOR?

Be informed and discuss all your options with your spouse and your physician.

Making a permanent decision.

When your family nest is full, or you have chosen not to father a child, vasectomy offers a permanent, safe, and worry-free choice in birth control. But is vasectomy for every man or every couple?

There are some general ground rules to consider first, as well as emotional and family concerns to discuss with your partner and physician. While the law may not require that you have the consent of your wife or partner, vasectomy or

any contraceptive choice is best discussed and decided as a couple. It is not uncommon to require waiting periods for patients prior to vasectomy surgery so that you are confident in your decision.

A serious decision not to be made lightly or alone.

Couples should first explore all birth control methods available—both the positive and negative aspects—and discuss their feelings and thoughts about each, before sharing their concerns and choice with a doctor.

Vasectomy is a long-term, low-cost choice for contraception and should be considered permanent. It removes risk and uncertainty of unintended pregnancy, just as tubal ligation does, but without the additional cost, possible hospitalization and surgical time to the woman. Moreover, vasectomy does not pose the danger to men that other contraceptive methods may pose for women.

On the other hand, things change. You should be absolutely certain that you do not want to father a child later under any circumstances, even if there are significant changes in your future. While a vasectomy can sometimes be reversed, you should assume that it might not be possible to change your mind later.

Are there some men who should NOT have a vasectomy? Frankly, yes. You may regret having the procedure if you are too young at the time of your decision. Generally, there is no minimum age requirement except that you must be an adult. Common sense, however, suggests that "older is wiser."

Men under the age of 25—or those who divorce young and remarry—or those who have the procedure immediately after the birth of a child—can come to regret the decision made too early in their lives. Moreover, regardless of the man's age, if the female partner is under the age of 25, couples may become dissatisfied with the decision.

Also, the decision to have a vasectomy should not be made based strictly on financial considerations. Your family income or circumstances may change and permit you to expand your family in subsequent years.

What about emotional considerations?

Experience suggests that you should not get a vasectomy to please someone else. The decision to father a child is yours—and your partner's—and no one else's.

If you have concerns about the stability of your current relationship, or your decision not to father a child in the future, a vasectomy may not be right for you at this time.

If you and your partner are experiencing sexual problems, fears, an unhappy relationship or just having difficulty communicating with each other about birth control options, it may not be a good time to decide about a vasectomy.

Vasectomy will not solve marital or sexual problems. However, it can help you enjoy sexual relations more—free from the fear of unwanted pregnancy. In addition, it can be the right choice if the female partner does not want or cannot take birth control pills or use other forms of contraception.

Who are the best candidates for vasectomy?

Because this is a personal decision, there are no absolute rules, and the best answer lies in being informed. However, here are some suggestions to consider as to who is a good candidate:

- Men and their partners over the age of 25, who are seriously committed to not having more children now, or in the future.
- Men for whom other forms of contraception are not safe alternatives for themselves or their spouse.
- Men who want to enjoy sex without the fear of unwanted pregnancy.
- Men who do not feel 'forced' into this decision by others or financial circumstances.
- Men who want to take the responsibility of contraception.
- Men who are concerned about passing on a genetic disease or hereditary disability.

Before making a decision, discuss these and all related issues with your spouse, and seek the advice of your physician.

HOW IT IS DONE

It is natural to be apprehensive about a medical procedure. One way to reduce fear is to increase your awareness of what to expect and how a vasectomy is performed.

Here is what to expect.

A vasectomy surgically blocks the vas deferens, preventing sperm from becoming part of the seminal fluid that leaves the body at sexual climax. Vas deferentia are the thin tubes in the scrotum that would normally carry sperm from the testicles to become part of the ejaculate. When the sperm channel is interrupted, the man becomes sterile and can no longer father a child.

A typical vasectomy is done in the doctor's office. Although your experience may vary somewhat, the following describes what you can expect.

The two most common vasectomy techniques are the traditional vasectomy, and the No-Scalpel Vasectomy (NSV). Both methods accomplish the same result, but the No-Scalpel Vasectomy has become more popular with both doctors and patients.

Because the No-Scalpel Vasectomy is widely accepted as simpler and safer, the information presented in this monograph favors NSV.

GENERALLY: Some expectations and considerations.**What a vasectomy is:**

- It is a safe and simple male sterilization procedure.
- It is highly effective (over 99 percent), but it is not guaranteed.
- It is considered a permanent procedure.

What vasectomy is not:

- It usually is not painful—a local anesthetic takes care of that.
- It is not as invasive or as expensive as the sterilization procedure for women (tubal ligation).
- It should not be considered uniformly reversible.
- It is not immediately effective because sperm in the vas deferens may be viable for many weeks.

What vasectomy does not do:

- It does not affect male hormone levels, since testosterone is released into the bloodstream, not through the vas.
- It does not affect sexual function. Vasectomy does not reduce sex drive or sensation. The semen appears the same, although the sperm is missing.
- It does not protect against sexually transmitted diseases.
- A vasectomy will not affect your manliness. The amount and appearance of semen will not change noticeably and sex will feel the same.

BEFORE: Preparing for your vasectomy.

There are some simple things that you can do to get ready for your office visit in advance of your appointment.

1. Do not take aspirin or other anti-inflammatory medication (e.g. Nuprin®, Advil®, Motrin®) for 10 days before the procedure. Such medication can increase the risk of bleeding.
2. Your doctor may ask you to shave the front portion of the scrotum. Shower thoroughly and wear or bring clean, snug underwear or an athletic supporter on the day of your appointment.
3. Arrange in advance for someone to drive you home following the procedure. While you might feel able to drive, post operative discomfort could become distracting. For your comfort and safety, it is advisable to arrange for a ride home.
4. Prepare questions that you may have for your doctor. You will be asked to sign a consent form stating that you understand the risks involved and that sterility cannot be guaranteed.
5. Your total appointment may last as much as an hour, but the vasectomy procedure itself only requires about 20 minutes in most cases.

DURING: The usual steps in a No-Scalpel Vasectomy.

Generally:

1. You will be asked to change into a gown and lie on the exam table.
2. The procedure site will be washed and shaved (if you were not instructed earlier to shave).
3. Sterile drapes will be placed over you to guard against infection.
4. After intravenous sedation and a local anesthetic are administered, a small puncture is made in the scrotum. (The punctures in the skin do not require a scalpel.)

5. Either the right or left vas deferens is lifted through this opening. The vas is cut, and a section may or may not be removed. The two ends of the vas are heat-sealed (cauterized), tied or clipped, before being returned to the scrotum.
6. The opposite vas deferens is then lifted through the opening for the same procedure. The remaining opening can heal with closure by stitches or naturally without stitches.

AFTER: Care following the vasectomy.

Follow your doctor's instructions. It is a good idea to read written instructions in advance, review them with your spouse and make preparations, if needed.

Any discomfort is usually mild and pain relievers should be used if necessary. The local anesthetic begins to wear off after an hour or so. Recovery time after a No-Scalpel Vasectomy is usually less than after a traditional vasectomy.

Here are a few general guidelines following an uneventful vasectomy:

- Go directly home and rest; elevate your feet. Plan to stay off your feet as much as possible for a couple of days.
- Your physician will likely prescribe an analgesic (pain pill) to control the pain after the local anesthetic wears off.
- Apply an ice pack to the scrotum periodically during the first 24 hours after the procedure to ease swelling.
- Wear snug cotton briefs or an athletic supporter to help apply pressure against the procedure area and for support of the scrotum for the first week or two.
- Your semen will be collected (usually at home) and examined under a microscope at approximately four to six weeks and possibly later after surgery to assure that no sperm remain.
- Contact your doctor if you experience fever and chills, increasing pain, drainage (sign of infection), a growing mass (sign of internal bleeding or infection), or other concerns.

WHAT TO EXPECT AFTER THE PROCEDURE

Your guide to the days and weeks that follow a vasectomy.

Immediately after your vasectomy, you can usually expect any discomfort to be relatively mild—especially after a No-Scalpel vasectomy. Regardless of your procedure, local anesthesia will begin to wear off an hour or so after the procedure. Your doctor will advise you of appropriate use of pain relievers and/or antibiotics, if necessary. Do exactly as your doctor prescribes.

Before you are discharged, read your doctor's written instructions and review them with your spouse so you can ask any questions you may have with your doctor. In addition, here are some general guidelines to for making your recovery uneventful and as comfortable as possible.

Getting Home.

Your doctor will advise you not to drive yourself home, so you will need to arrange for transportation in advance. He will also determine when you are ready to travel, so do not try to speed up the process. Go directly home to rest.

You can expect to wear a snug scrotal support garment or jockey shorts immediately after the surgery and for about one week thereafter. Wear or bring these with you to your appointment.

Beginning Your Recovery.

Elevate your legs, stay off your feet, and use ice packs liberally to soothe the scrotal area during the first few days following your vasectomy to help minimize any swelling and discomfort.

Contact your doctor immediately if, in the first day or two following surgery, you experience any sudden fever, chills, increasing pain, swelling or drainage, any of which might be signs of infection.

The First Days.

Check with your doctor when you may resume taking showers, usually within a day or two. Do not take tub baths or submerge your body for at least 48 hours after surgery. This could expose your incision to bacteria and the risk of infection. Warm, 20-minute baths can be beneficial after the few days following your vasectomy.

Although you can expect some discomfort at first, lasting or significant pain is uncommon. However, do not try to "tough it out" when it comes to postoperative pain. Let your doctor know if you experience an increase in discomfort, so you can receive the right medication.

Vasectomy procedures are often scheduled for a Thursday or Friday; this allows a weekend to recuperate before the start of the next workweek. It is not uncommon for men to return to work on the following Monday or Tuesday.

The First Few Weeks after Surgery

You should not consider, and probably will not feel like, resuming sexual intercourse from 72 hours to a couple of weeks following surgery. Before you do resume sexual activity, remember that you will not be considered sterile for several weeks. Until your doctor determines that you are sterile, continue to use an alternate form of birth control.

In addition, you should remember that a vasectomy does not protect you or your partner from sexually transmitted diseases.

Once sexual activity is comfortable for you, it is important to resume ejaculation, since it takes between 10 and 20 ejaculations before any remaining sperm is released. In fact, sperm can remain in the semen for three to six months following your vasectomy.

You can expect your doctor to advise you when to bring in your first semen sample for examination. This is usually within four to six weeks after your vasectomy. You may be able to collect your seminal specimen at home and bring it directly to the doctor's office or lab. Use the sterile containers that your doctor's office will provide you for all semen samples.

Doing Your Part

Once seminal analysis begins, your doctor may advise you to ejaculate 10-12 times before collecting and submitting your first, and all subsequent, specimens to your doctor for microscopic laboratory analysis. You can expect to provide semen samples thereafter every few weeks or so.

You are generally considered sterile only after your doctor makes that determination.

THE RISKS AND COMPLICATIONS

Vasectomy is a safe, simple and effective birth control method.

What are the general risks?

Any surgical procedure carries some risk, but vasectomy is considered low-risk, and complications are uncommon. It is important to note that vasectomy should be considered a permanent form of birth control, and it does not protect against sexually transmitted diseases or AIDS.

Discuss any concerns and risks associated with vasectomy with your physician. The following is a list of most, but not all, of the risk issues to consider.

Allergic Reaction: Rarely, some men may experience itching and hives, as an allergic reaction to local anesthetic.

Antibodies: Sperm, which are no longer released through ejaculation and absorbed by the body, may attract antibodies produced following vasectomy.

Bleeding: Generally, painless bleeding may occur following vasectomy and collect under the skin, so that the penis and scrotum appear bruised and/or swollen.

Chronic Orchialgia: Rarely, the patient may experience a dull ache in the testicles following vasectomy that is thought to be caused if the epididymis becomes congested with dead sperm and fluid. If this condition occurs, it usually disappears within six months.

Congestion: A common name for chronic orchialgia (see above).

Epididymitis: This uncommon condition occurs when the larger tube behind the testicle, connected to the vas, becomes inflamed and swollen. The application of heat and the use of anti-inflammatory medication usually clear this up within a week.

Failure: Pregnancy may result if a man fails to abstain from sex or use alternative forms of birth control during the waiting period, until the testing for live sperm is completed. There is also one chance in 10 thousand that the cut vas will spontaneously rejoin.

Hematoma: Bleeding inside the scrotum rarely may cause painful swelling immediately following a vasectomy. The result is known as a hematoma, and while seldom serious, it should be reported to a physician.

Immune Reactions: Following vasectomy, the immune system may recognize the absorbed sperm cells as foreign proteins and produce antibodies in response. While many men may experience this immune reaction, current evidence indicates that this reaction generally is not harmful. Immune reactions can also contribute to the development of clogging of arteries, which in turn could lead to heart attacks. However, there is no evidence of an increased risk of atherosclerosis because of a vasectomy.

According to the National Institutes of Health, research that examined this issue found no evidence that vasectomized men were more likely than others to develop heart disease or any other immune illness. (NIH Publication Number 96-4094, April 1996)

Infection: If blood collects under the skin following vasectomy, it can become infected. Infection of the incision site, or deeper tissue, occurs in less than 5 percent of all cases. Such infections usually respond favorably to antibiotic treatment, antimicrobial creams and hot baths, usually within a week.

Postoperative Pain: Some degree of scrotal pain or ache is normal following a vasectomy. The use of acetaminophen (Tylenol), with or without codeine frequently is recommended over aspirin, which can cause bleeding. Painful discomfort normally disappears within a day or two, while a slight ache may remain longer.

Prostate Cancer: Studies looking at the association of prostate cancer with vasectomy have demonstrated conflicting results in the past. To answer this question, a major study involving over 2000 men was performed and reported in the Journal American Medical Association (JAMA 2002; 287:3110-3115). The conclusion was clearly that there is no increased risk of prostate cancer with vasectomy (NIH News Release).

Sexual Difficulties: It is usually reported that men who undergo vasectomy and their partners express greater enjoyment and spontaneity of sex. However, occasionally a man may experience sexual problems after vasectomy, but these usually have an emotional basis. Counseling usually alleviates the problem.

Sperm Granulomas: Very rarely, sperm leakage from the testicular cut end of the vas may cause a small and usually painless lump. This lump does not pose a danger and frequently resolves over time.

METHODS OF CONTRACEPTION – COMPARISON CHART AND INFORMATION

A vasectomy is a popular and safe method to prevent conception. Here is how it compares among other options available to couples.

Perhaps the first and most important thing to know is that a wide range of contraception options exist for couples to review and consider. There is simply no right or wrong choice, but some options are better for some people and situations than other options.

Therefore, always take the time to discuss these options with your physician or qualified health care advisor and be fully informed before making your decision. Some methods can have serious side effects.

Abstinence: The man and the woman may mutually decide to not have sexual intercourse.

Condom: A thin, form-fitting sheath worn over the man's erect penis to block sperm.

Diaphragm: A shallow rubber cap, used with a contraceptive jelly, which the woman places in her vagina to cover the cervix.

Hormone Implant: Small pellets are surgically inserted beneath the skin of a woman's arm, which gradually release progesterone-like hormone.

Hormone Injection: A series of progesterone injections administered every 12 weeks.

IUD: Intrauterine Device (IUD) a small plastic device (T-shaped, about the size of a quarter) that is placed in the uterus.

No Method: Couples that do not use any method of contraception are at the highest risk of unintended pregnancy.

Oral “The Pill”: Couples that do not use any method of contraception are at the highest risk of unintended pregnancy.

Rhythm Method: Couples abstain from intercourse for five to 15 days per month to avoid the most fertile days in the woman’s menstrual cycle.

Spermicides: Chemical contraceptives, such as foam, cream or jellies, which effectively kill sperm on contact in the vagina.

Tubal Ligation: Surgical sterilization for women, performed under general anesthesia.

Vaginal Pouch: Surgical sterilization for women, performed under general anesthesia.

Vasectomy: Surgical sterilization for men, usually performed with local anesthetic.

Withdrawal: When the man attempts to withdraw from intercourse before ejaculation.

Regardless of your choice, always follow the directions or instructions of your physician consistently and carefully. One of the major factors in the failure rate of many contraceptive methods is simply that they were not followed correctly.

COMPARISON MATRIX

METHOD	USED BY	TYPE	Dr./ Rx?	SIDE EFFECTS	ACTUAL FAILURE RATE*	USEFUL DURATION	REVERSIBILITY
ABSTINENCE	Both M & F	Natural	No	No	0.0%	BRIEF	Yes
CONDOM	Male	Barrier	No	No	1-33%	BRIEF	Yes
DIAPHRAGM	Female	Barrier	Yes	Yes	1-21%	BRIEF	Yes
HORMONE IMPLANT	Female	Hormonal	Yes	Yes	0.2%	LONG-TERM	Yes
HORMONE INJECTION	Female	Hormonal	Yes	Yes	0.4%	LONG-TERM	Yes
IUD	Female	Intrauterine	Yes	Yes	0.5-5%	LONG-TERM	Yes
NO METHOD	Both M & F	n/a	No	No	> 85%	n/a	n/a
ORAL 'THE PILL'	Female	Hormonal	Yes	Yes	0.16-3%	BRIEF	Yes
RHYTHM METHOD	Both M & F	Natural	No	No	14-47%	BRIEF	Yes
SPERMICIDES	Female	Barrier	No	No	13 - 28%	BRIEF	Yes
TUBAL LIGATION	Female	Surgical	Yes	Yes	0.2-0.4%	PERMANENT	Maybe
VAGINAL POUCH	Female	Barrier	No	No	28%	BRIEF	Yes
VASECTOMY	Male	Surgical	Yes	Yes	0.02-.2%	PERMANENT	Maybe
WITHDRAWAL	Male	Natural	No	No	19%	BRIEF	Yes

****Actual Rate signifies rate when method is used routinely over a one year period.**

Adapted from:

1. Trussell J, Hatcher RA, Cates W, Stewart FH, Kost K. A Guide to Interpreting Contraceptive Efficacy Studies. Obstetrics and Gynecology 1990; 76:558-67.
2. Mishell DR, Jr. Contraception. New England Journal of Medicine 1989; 320: 777-787.

WHAT WOMEN WANT TO KNOW

Answers to your most intimate questions. The vasectomy procedure should be considered carefully by each man and every couple. As a woman, you may have special concerns that need to be addressed.

Do not hesitate to ask your physician for more information.

Vasectomy sterilization raises questions for every couple, both men and women. Although men can be forthcoming about the questions, concerns and fears they share with their physician, it is just as important for women to be informed and reassured about the procedure. You may be surprised to know that many women share the apprehensions about vasectomy surgery that you may have.

Candid questions, correct information, and the assurance of an experienced physician are the keys to feeling more comfortable and sure about the decision you and your spouse to limit the size of your family. Make a list of the questions that concern you most before meeting with your doctor.

Here are some, but not all, of the questions commonly asked by women:

"My husband does not want surgery—he says that a tubal ligation is just as safe, easy and effective. Is it?"

A vasectomy is faster, easier, less expensive and poses much less risk of complications to men than does a tubal ligation for women. A vasectomy is performed in just minutes with a local anesthetic. A tubal ligation which must be performed under anesthesia, requires a longer recovery period and is more expensive than a vasectomy.

"Will a vasectomy affect a man's sexual performance or ejaculation?"

Sperm is only a tiny portion of the seminal fluid that is released at ejaculation. A vasectomy does not change the volume, color, or consistency of the ejaculate. Sperm are impossible to detect without the use of a microscope. The quality, intensity and duration of a man's orgasm and ejaculate will not change after a vasectomy.

"How long will it be until my spouse and I can resume sex?"

Physicians usually advise that it is best to wait a week or two following the procedure before returning to sexual activity. It will take additional time before sperm is no longer ejaculated, so an alternate form of birth control should be used.

"Does the vasectomy procedure leave scars?"

A vasectomy is a safe, simple procedure that leaves virtually no scar or noticeable difference to the feel or appearance of the scrotum.

"After the vasectomy, how soon will it be until my husband is no longer producing sperm?"

Even after a vasectomy, men continue to produce sperm, which is absorbed by the body. Your husband will have several sperm tests following surgery, and it may take a month or longer before he no longer ejaculates sperm and the vasectomy is considered successful.

"How long will my husband be in pain after surgery, and how can I help?"

You can expect your husband to experience some degree of discomfort and swelling on the day of, and after, surgery. A gradually decreasing ache in the scrotal region may follow and last for a week or so. The best medicine for him is to follow doctors' orders, lots of ice and rest, and your tender loving care.

"Does a vasectomy make you more, or less, susceptible to sexually transmitted diseases?"

Vasectomy surgery does not protect couples from the risk of transmitting or contracting a sexually transmitted disease. These diseases are transferred in body fluids, such as saliva or semen. Both men and women should use condoms if any potential risk of sexually transmitted disease exists.

"How young is "too young" for a couple considering vasectomy surgery?"

An individual may choose not to ever father a child at any stage of life, and age is a subjective consideration. However, a good rule of thumb is that couples over the age of 25, who have all the children they desire, are old enough to make this personal, permanent decision.

WHAT IF WE HAVE A CHANGE OF HEART?

Things can change. Is a vasectomy permanent?

Even the most carefully considered decisions are sometimes revisited in the future. Although it is best to consider a vasectomy to be permanent, the circumstances of life may later cause people to wonder just how permanent is a "permanent" vasectomy.

Certainly, things can change. Men who have remarried may wonder about a reversal if the new couple wants to add children to their family, but the vasectomy is an obstacle. Perhaps the vasectomy was done at a relatively early age, or that the family or financial situation has changed significantly.

For whatever the reasons, as many as 30,000 to 50,000 men have a vasectomy reversal each year. (Moreover, it is likely that many others consider a reversal, but do not have the procedure.)

The best and the worst.

In addition to being nearly 100 percent effective, perhaps the best thing about a vasectomy is that it is permanent. On the other hand, maybe the worse thing about a vasectomy is that it is permanent. Although significant advances in microsurgery have made the vasectomy reversal far more common in recent decades, it is still best for someone who is thinking about having a vasectomy to regard "permanent" as completely permanent.

Vasectomy reversals have a high likelihood of success for many men, especially if the time between the vasectomy and the reversal is only a few years. While success factors for restoring fertility are good in many situations, it is never a "sure bet," especially if a number of years have passed.

The "success" of a reversal is measured in two categories; the ability to re-open a vas channel for sperm to return to the ejaculatory fluid; and secondly, the chance of pregnancy. If it has been less than three years since the vasectomy, the likelihood of rebuilding the vas channel is 97 percent; and the chance of pregnancy is 76 percent.

However, these rates of success are lower as more time passes from the date of the original vasectomy. For those individuals who had a vasectomy over 15 years previously, these chances fall to 71 percent likelihood of restoring the vas channel, and 30 percent likelihood of a subsequent pregnancy.

Informed and confident decision.

It is best not to have a vasectomy with the expectation that fertility can be easily restored later. In fact, if you think you might have a change of heart, it may be better to consider less permanent contraception methods until you are clear and confident about your decision.

It is always a good idea to consider important decisions carefully and to fully research your options. If you have medical questions, talk to your doctor.

SPERM BANKING: A VALUABLE OPTION

Sperm Banking may play an important role in a couple's decision when considering a vasectomy or a reversal.

Sperm Banking is the collection, freezing (cryopreservation) and storage (cryobanking) of healthy sperm prior to vasectomy or through sperm aspiration during vasectomy reversal surgery.

At the time of a **vasectomy**, sperm banking allows couples to have dependable sterility now, as well as "banking" sperm for possible future option of having children.

At the time of a **vasectomy reversal**, sperm aspiration and banking provides an alternative if the reversal is not effective and the couple may later consider Assisted Reproduction Techniques (ART) such as artificial insemination, in vitro fertilization and sperm microinjection.

You should thoroughly understand the facts and technology including: the value of sperm banking, the costs associated with the process, accreditation of sperm banking organizations, and whether or not sperm banking is right for you. Discuss this option with your physician.

Vasectomy: A Quick Review

Annually, approximately 600,000 American men opt for vasectomy. However, couples can have a change of heart, or a man may regret an earlier vasectomy if he later remarries. For whatever the reasons, as many as 30,000 to 50,000 men have a vasectomy reversal each year.

While success factors for restoring fertility after vasectomy are good in many situations, it is never a "sure bet," especially if the vasectomy is several years "old." That is why sperm banking before a vasectomy is an option worth evaluating.

The Facts about Sperm Banking:

Cryopreservation and cryobanking simply involve freezing-at very low temperatures-and storing living tissue, such as healthy, viable sperm. These are two initial steps involved in a program of assisted reproductive techniques. When sperm is cryobanked, the specimen is mixed with an equal volume of glycerin preservative that helps protect the individual sperm cells from being damaged during freezing. Sperm specimens may be frozen for years in this manner. However, only half of the sperm cell specimens may prove motile, or fertile, after emerging from their frozen state.

To begin this entire procedure, you will need to set an appointment with the laboratory or sperm bank facility of your choice before your vasectomy in order to have your case and medical history reviewed.

If your sperm has not been tested before, you will need to provide an initial specimen for comprehensive semen analysis. If this first sperm sample is found healthy, your initial specimen will usually undergo a test freezing by the lab before determining if complete cryopreservation and sperm banking is appropriate in your case.

The specimens that will be preserved can be collected at the laboratory, or when this is not convenient or practical, the collection can be done at home and shipped to the facility using special packaging. (There can be additional costs involved in shipping specimens collected from home that, in one example, total \$165 for three samples stored in liquid nitrogen.)

Sperm may be banked from one ejaculation or 'collection', which provides the lab with one to six vials of specimen material. It is often recommended that you plan on banking more than a single collection. To build up your sperm count, it is ideal to wait at least two days between collections.

Once you and your partner are ready to use the frozen sperm, the sperm bank must be notified in writing at your doctor's request. The facility then releases the specimen for shipping at your directions, or for use in assisted reproductive techniques directly in the laboratory. If you eventually decide not to use the frozen sperm, you will have to provide a notarized request to have your specimens destroyed.

Some Cost Factors:

The costs of assisted reproduction and sperm banking are generally not covered by insurance. Private laboratories, hospitals and university medical centers across the country, provide these services—and prices for individual services differ.

Some facilities may charge a \$500 initiation fee prior to services. Basic semen analysis, including sperm count and motility evaluation, is generally about \$55, but may run as high as \$300 if initial fees are not required. First sperm samples must often be accompanied with a \$50 fee. Cryobanking itself can cost from \$200 up to \$450 a year for freezing and storage of all specimens.

Sperm Bank Accreditation:

The costs and procedures involved in cryopreservation and sperm banking are of little concern if you cannot count on the quality and medical integrity of the services and facility you choose. That is why it is important that you check the accreditation of your sperm bank or assisted reproduction laboratory.

Universities and state and federally funded sperm banking programs must meet rigorous professional and regulatory standards, inspections and certifications. These include CAP (College of American Pathologists) CLIA (Clinical Laboratory Improvement Act), COLA (Commission on Office Laboratory Accreditation), AATB (American Association of Tissue Banks), the American Society for Reproductive Medicine and other organizations.

Is Sperm Banking Right for You?

While it is important to consider this option at the time of a vasectomy or a reversal, there are cautions. Sperm banking cannot guarantee successful conception and pregnancy, it cannot guarantee a healthy child, and it cannot genetically manipulate any physical or mental characteristics for a child conceived in this manner.

Nonetheless, sperm banking offers a valuable back-up plan when considering vasectomy or reversal. Certainly, it is a good idea to plan for every contingency when considering sterilization today, and potential reversal in the future. The fact is, many couples never resort to using frozen sperm. However, like anything valuable, it is nice to have it in the bank, "just in case."

NO-SCALPEL VASECTOMY: TOP 10 QUESTIONS AND ANSWERS!

What men—and their wives—want to know. Here is a checklist of some of the most frequently asked questions (in no specific order), and the answers that doctors provide.

A man and his spouse should carefully consider what they want to know before deciding about a vasectomy reversal. It is important that every couple be fully informed and aware.

The more time a couple spends in becoming educated about a vasectomy—or any procedure, for that matter—the greater confidence they will have in making a decision that is right for them and their situation.

Basically, what is a vasectomy?

A vasectomy is a minor surgical procedure used by urologic surgeons to make a man sterile. It is one of the most popular forms of contraception in the United States and worldwide, and is regarded as safe, simple and highly effective. A vasectomy is performed by cutting the vas deferens, the small tube that carries sperm from the man's testicles to become part of his semen. Although the man continues to have sexual intercourse and climax as before, his semen does not contain sperm and he cannot father a child following a vasectomy.

What is a "No-Scalpel" Vasectomy (NSV)?

The No-Scalpel technique is one of two main methods surgeons use to perform a vasectomy. Many doctors favor the No-Scalpel method because—unlike the traditional vasectomy approach—a scalpel is not required and there are no incisions (only one or two small punctures in the skin). In addition, the NSV often results in less discomfort after the procedure with a reduced risk of bleeding or infection. In addition, there is no perceptible scarring.

How long does the No-Scalpel procedure and recovery take?

The procedure itself usually takes about 15 minutes, sometimes less. However, including the office routine, paperwork and preparation, the total time in a doctor's office may be about an hour. The procedure is likely to produce tenderness, discomfort and slight swelling in the first two or three days afterwards, with a return to nearly all usual activities typically within a week.

How effective is a No-Scalpel vasectomy?

A vasectomy of any type ranks among the most effective means of protection from pregnancy. Although no procedure is totally safe or effective, the failure rate for a vasectomy is less than one percent. (By comparison, the failure rate for latex condoms is 12 percent or more; for diaphragms, it is 18 percent.) Couples who want a highly reliable and permanent form of contraception often opt for a vasectomy where the success rate is over 99 percent.

Does it work immediately?

No, any vasectomy does not make you sterile right away, and you will want to continue using some other means to guard against pregnancy until your doctor tells you otherwise. Immediately after a vasectomy, active sperm remain in the semen for a period of time. It may take 15 to 20 ejaculations and several weeks before your semen is free of sperm. Your doctor will test the semen, perhaps several times over several weeks, and let you know when you can safely consider the vasectomy to be complete. This may be as long as two months.

What happens to the sperm?

This is a mystery to some people, but the answer is both normal and natural. The body absorbs unused sperm cells normally—whether or not you have had a vasectomy. After the procedure, the testicles will continue to produce sperm, but they will not leave the body in the semen. They dissolve and are simply and naturally absorbed by the body.

Will my sex life be affected?

A vasectomy only blocks sperm and does not affect your sexual drive, your ability to have an erection, orgasm or ejaculation or your ability to have and enjoy sex. Sperm is only a small fraction of the total liquid in your semen. The amount of fluid, intensity—even color and texture—does not appear to change when sperm is absent. Male hormones continue in the bloodstream, and secondary characteristics (such as beard or voice) do not change. Some couples say their relationship is improved by not having to worry about contraceptive techniques or unplanned pregnancy.

What is the cost of a No-Scalpel vasectomy?

The actual cost of the procedure ranges from \$400 to \$1,200 but this cost is covered under many health insurance programs. You will want to ask your insurance company or HMO if any or all of this cost is provided under the benefits of your coverage. (As a point of reference, this cost is significantly lower than the sterilization operation for women—tubal ligation.)

Are there risks or complications?

Yes, as with any surgical procedure, there could be complications and you should ask your doctor to go over these carefully with you. However, any type of vasectomy ranks among the safest procedures and the majority of

complications, if any, are usually minor and easily treated. These include a chance of infection, bleeding or transient bruising, temporary swelling or fluid accumulation.

Following the procedure, some men experience pain, often as a dull ache, caused by a pressure on the miniature tubes of the epididymis. This is usually treated successfully with medication, but the removal of the epididymis is sometimes recommended.

Some studies have found that some men, who had a vasectomy 20 years earlier, have a slightly higher risk of prostate cancer than others who did not have a vasectomy. Other studies did not have the same results. The American Urological Association and the American Cancer Society recommend that men over the age of 50 should have a regular prostatic examination and a PSA blood test to help detect early prostate changes. This recommendation is the same for all men in this age range (50 to 70), including those who have had a vasectomy and those who have not had the procedure.

Can a vasectomy be reversed?

You should consider any vasectomy to be permanent. There are delicate microsurgery operations that may be able to reverse the effects of a vasectomy, but there is no assurance that the flow of sperm can be restored or pregnancy will result in every case. The likelihood of success can vary greatly depending on individual circumstances, including how much time has passed since the vasectomy. If you are seriously considering a vasectomy, it is best to assume that it will be a permanent change.