**HYSTERECTOMY**

**OOPHORECTOMY**

**HORMONE THERAPY**

**SEX AFTER HYSTERECTOMY**

***A learning tool for a patient who still has her uterus, and thinks she may be better off without it.***

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This paper deals with four topics that are very much inter-related. I hope it’s thought-provoking, helps you decide whether or not you want a hysterectomy, and that it helps initiate a meaningful discussion at your preop appointment if we do decide to proceed with hysterectomy. If you are “on the fence” regarding hysterectomy, I hope this document helps get you on one side of the fence or the other.

If you and I are contemplating or planning hysterectomy, we need to make a couple of decisions beforehand:

* **We need to decide the best surgical technique to get your uterus out**. Pros and cons of these techniques will be discussed in this paper (in **Chapter 1**).
* **We need to decide what to do with your ovaries**. Usually, diseased ovaries should come out. Normal-appearing ovaries can come out, or be left in. Several decision-making strategies will be discussed in this paper (in **Chapter 2**).
* **We need to decide whether estrogen replacement therapy (ERT) would be in your best interests after the surgery**. Pros and cons of hormone therapy will be discussed in this paper (in **Chapter 3**).
* **You need to know that sex will probably be better (or at least not worse) after hysterectomy**. This is discussed in this paper (in **Epilogue**).
* **VOCABULARY**

Before we can have an effective discussion about these topics, you must know the definitions of several words and terms. ***Please* read this section first (don’t skip to the good stuff!)**

**VOCABULARY,** in alphabetical order

 **Adenomyosis** Endometrium grows into the wall of the uterus, rather than just staying inside the uterine cavity where it belongs. It’s a relatively common cause of heavy periods, painful periods, and mild uterine enlargement.

**Adhesions** When organs are stuck together. The uterus, fallopian tubes, ovaries, and intestines are supposed to be slippery on the outside and freely mobile. Adhesions can cause pain, intestinal symptoms, or painful intercourse.

**BRCA Gene Mutations (BRCA1 and BRCA2)** Abnormal genes, present in about 1 out of 400 people. Being “BRCA-positive” means the risk of breast and/or ovarian cancer is markedly higher than average. BRCA1 carriers have a 50-80% chance of breast cancer, and a 24-40% chance of ovarian cancer. BRCA2 carriers have a 40-70% chance of breast cancer, and an 11-18% chance of ovarian cancer.

**Cervix** The bottom part of the uterus, attaching the uterus to the top of the vagina and the pelvic support structures.

**Endometrial Hyperplasia** Pre-cancerous thickening of the endometrium, sometimes treated with progesterone pills, sometimes with hysterectomy.

**Endometriosis** “Normal tissue growing in abnormal places.” Endometrium, normal tissue when it’s inside the uterus, grows outside the uterus in the pelvis or abdomen. It’s quite common, and is a common cause of pelvic pain, severe menstrual pain, or painful intercourse.

**Endometrium** The lining of the uterus. Most uterine bleeding, including periods, comes from the endometrium.

**Fibroids**  Benign (non-cancerous) firm round muscular growths in the uterine wall, or more rarely in the uterine cavity or projecting from the outside of the uterus by stalks. Fibroids are very common, and don’t necessarily mean surgery. Very rarely, fibroids contain a type of cancer (sarcoma).

**Hormone** A chemical produced by an organ that exerts it’s effects on other parts of the body by circulating through the bloodstream. Estrogen and progesterone are the most significant hormones produced by the ovaries, but they do produce other hormones including testosterone.

**Hormone Therapy** Estrogen, with or without progesterone, sometimes taken by women to combat menopausal symptoms, maintain vaginal health, or maintain bone health.

* **Hormone Replacement Therapy (HRT)** A combination of estrogen and progesterone. This is the type of hormone therapy recommended for women who still have a uterus, as estrogen-only could cause endometrial hyperplasia or cancer.
* **Estrogen Replacement Therapy (ERT)** Estrogen-only hormone therapy, used by women who no longer have a uterus to worry about.

**Hysterectomy**  Removal of the uterus.

* **Total Hysterectomy** Removal of the entire uterus, including cervix. Some people mistakenly believe the word “Total” implied removal of the ovaries along with the uterus. It doesn’t.

Surgical Techniques (detailed discussion in next section):

* **Total Laparoscopic Hysterectomy (TLH)**
* **Vaginal Natural Orifice Transluminal Endoscopic Surgery Hysterectomy (vNOTES-H)**
* **Total Vaginal Hysterectomy (TVH)**
* **Laparoscope-Assisted Vaginal Hysterectomy (LAVH)**
* **Total Abdominal Hysterectomy (TAH)**
* **Supracervical Hysterectomy (SCH)**  Removal of just the body of the uterus, leaving the cervix in place.

**Laparoscopy** Surgery done through one or several smaller incisions, using a high-resolution camera attached to a telescope, a video monitor, and small instruments.

* **Straight-Stick Laparoscopy** Traditional laparoscopy, with the surgeons standing by the table controlling the instruments with their hands. My kind.
* **Robotic Surgery** Laparoscopy done with the instruments hooked up to a very fancy “robot”, while the surgeon controls the robotic arms and instruments from a remote console (in the same room, of course.)

**Laparotomy**  Surgery done through an open abdominal incision.

**Menopause** The time in a woman’s life when the ovaries cease production of estrogen, and menstrual periods stop. Menopause can be either naturalorsurgical. **Natural menopause** just happens on it’s own (usually gradually), while **surgical menopause** happens abruptly if both ovaries are removed. The age of menopause varies widely---most women are menopausal by age 50-55.

**Oophorectomy**  Removal of ovary (or ovaries).

* **Unilateral Oophorectomy** Removal of one ovary.
* **Bilateral Oophorectomy** Removal of both ovaries.

**Osteoporosis** When bones lose density, become weak, and fracture more easily. Decreased estrogen production around the time of menopause triggers a period of rapid bone loss , starting about a year before menopause and lasting about 3 years.

**Perimenopause** The years leading up to menopause, when the amount of estrogen made by the ovaries begins to fluctuate. Cycles can become shorter, longer, or more unpredictable, flow can be lighter or heavier. Some women have a short perimenopause, and some women have a perimenopause that drags on for years.

**Risk-Reducing Surgery** Removing normal, healthy organs while they’re still normal and healthy, to reduce a woman’s risk of future cancer. The most common example would be Bilateral Salpingo-Oophorectomy (BSO), to reduce the future risk of ovarian and breast cancer in women with BRCA gene mutations, strong family history, or personal history of breast cancer.

**Salpingectomy**  Removal of fallopian tube(s).

* **Unilateral Salpingectomy** Removal of one fallopian tube.
* **Bilateral Salpingectomy** Removal of both fallopian tubes.

***In this paper, “Hysterectomy” always implies Bilateral Salpingectomy.***

**Salpingo-Oophorectomy** Removal of one or both fallopian tubes and ovaries.

* **Unilateral Salpingo-Oophorectomy (USO)** Removal of one fallopian tube and ovary.
* **Bilateral Salpingo-Oophorectomy (BSO)** Removal of both fallopian tubes and ovaries.

**Vaginal Vault** The top of the vagina, where the cervix was attached to the vagina before hysterectomy. Securely attaching the vaginal vault to sturdy pelvic tissue (cardinal and uterosacral ligaments) after removing the uterus is a crucial and routine part of a hysterectomy.

* **Chapter 1: HYSTERECTOMY**

**INTRODUCTION**

For such a small part of the body, the uterus sure can wreak a lot of havoc. A normal uterus weighs only a few ounces, but uterine problems can cause a wide range of life-altering symptoms, poor school performance, work absenteeism, and unpleasant or non-existent sex. Fortunately, hysterectomy is a relatively straightforward and well-tolerated procedure.

If I have offered or recommended hysterectomy to you, it means I sincerely believe that removing your uterus will improve your life, by either eliminating debilitating symptoms or reducing your future risk of cancer. If I offer you hysterectomy, it means I can’t think of any simpler treatments that would eliminate your symptoms (or that we’ve tried something simpler, and it didn’t work).

The most common reasons why I might offer you a hysterectomy are:

* abnormal uterine bleeding
* pelvic pain that is related to the uterus
* symptoms caused by an enlarged uterus (pain, pressure, bowel or bladder symptoms, sexual difficulty, bloating)
* uterine fibroids (benign muscle growths) that cause symptoms, or rapidly-enlarging fibroids
* endometriosis symptoms that aren’t relieved by more conservative treatments (there would be a better chance of cure if the ovaries are removed also)
* symptomatic uterine prolapse (uterus falling down into the upper vagina because of damaged supportive tissue)
* cervical dysplasia (“pre-cancer”) that does not respond to conservative measures, or comes back after conservative treatment
* endometrial hyperplasia (“pre-cancer” in the uterine lining) that does not respond to hormonal therapy
* very high risk of future gynecologic cancer because of family history or genetic susceptibility genes (this hysterectomy would almost certainly include removal of the ovaries)
* severe cyclic symptoms that consistently occur at the same part of the cycle month after month, such as severe PMS or migraine

Since I am a “benign gynecologist,” if I offer you hysterectomy it means I’m pretty confident that you don’t have gynecologic cancer (cancer in the uterus, cervix, ovaries, or fallopian tubes). If I have diagnosed cancer (or high suspicion of cancer), I will refer you to a trusted friend and colleague who’s specially trained in cancer surgery.

**In this paper, “Hysterectomy” always implies Hysterectomy with Bilateral Salpingectomy** Throughout this paper, any mention of “hysterectomy” implies removal of the uterus *and* both fallopian tubes. Every hysterectomy should include bilateral salpingectomy if technically feasible. There are absolutely no health benefits from keeping the fallopian tubes after hysterectomy. They do not produce hormones, and removing the fallopian tubes reduces the risk of future cancer. The majority of “ovarian cancer” actually originates in the ends of the fallopian tubes, so removing them reduces the risk of ovarian cancer! If you decide to go to another doctor for your hysterectomy, make sure he or she plans on removing both fallopian tubes along with your uterus---it could save your life!

Every hysterectomy, by any of the techniques, includes suspension of the top of the vagina (“vaginal vault”) to the sturdy pelvic supportive structures (cardinal and uterosacral ligaments) to reduce the risk of future vaginal vault prolapse. Vaginal vault suspension is an essential and implied part of any hysterectomy---it will appear in the Operative Report that I dictate, but it is not billed for separately.

 **TECHNICALLY SPEAKING**

There are different ways to get a uterus out. The different surgical approaches (“routes”) all have their own fancy names, and abbreviations (**TLH, vNOTES H, TVH, LAVH, TAH, SCH)**---with or without oophorectomy). While all these big words and abbreviations may sound a little confusing, rest assured that the end-result of all the techniques should be the same:

* Removal of the entire uterus and both fallopian tubes (except for **SCH**, which leaves the cervix in place).
* Removal of one or both ovaries if desired.
* Suspending the top of the vagina to the cardinal and uterosacral ligaments to prevent future vaginal prolapse.
* Treating any other anticipated or unanticipated conditions encountered at the surgery (like endometriosis or adhesions).

Here is a description of each route, with some advantages and disadvantages.

**Total Laparoscopic Hysterectomy (TLH)** means removing the entire uterus and both fallopian tubes (and ovaries if desired) through 4 small abdominal incisions, using a camera, small instruments, and high-definition video screens. TLH has been my “default” modality since 2017, but I still do the other kinds depending on circumstances. This procedure should work well for women with strong, tight, or small vaginas, like many women who’ve never had a baby vaginally. TVH and LAVH are challenging in these patients. Small incisions usually mean less postoperative pain, short hospital stays (likely go home the same day), and quicker resumption of normal activities. TLH practically assures that both fallopian tubes (and ovaries if desired) can be entirely removed, and allows an excellent view of the entire abdomen. Anybody undergoing TLH should be prepared for the possibility of me needing to convert to an open approach.

**vNOTES Hysterectomy (vNOTES-H)** means removing the uterus and fallopian tubes (and ovaries if desired) vaginally with laparoscopic assistance, but with no abdominal scars . Rather, the laparoscope and several instruments are inserted through a vaginal incision. This is the "newest" hysterectomy technique, so only a handful of surgeons around the world (including me) have been formally trained in vNOTES surgery. Not everybody is a good candidate for vNOTES surgery. People with an extremely large uterus, people who likely have severe adhesions and/or severe endometriosis, and people with an extremely tight or small vagina would be better served by one of the other approaches. Anybody undergoing vNOTES surgery should be prepared for the possibility of me needing to convert to a traditional laparoscopic or open approach.

**Total Vaginal Hysterectomy (TVH)** means removing the entire uterus through a strictly vaginal approach, with no abdominal incisions whatsoever. Throughout my career, I’ve done many hysterectomies this way *if* the plan is to conserve the ovaries and I don’t suspect severe adhesions or severe abdominal disease. This is a very simple and elegant way to get a uterus out, and most of my patients go home from a TVH the same day (sometimes the next morning). This does require some degree of vaginal laxity, so it’s generally most appropriate for somebody who’s had one or more babies vaginally. I have done TVH on people who’ve never had a vaginal delivery, but it’s more of a struggle. The fallopian tubes are removed if possible, but it’s not always possible to safely do this because visualization, mobilization, and clamp-placement can be challenging. Likewise it’s not always possible to safely remove the ovaries for similar reasons. Thus, if it’s absolutely essential to get both tubes and ovaries out, this is *not* the preferred approach. During TVH it’s not possible to evaluate the upper abdomen, and it’s not possible to thoroughly diagnose and treat endometriosis. Pelvic adhesions can make TVH difficult or impossible, and can compromise safety. Anybody undergoing TVH should be prepared for the possibility of me needing to convert to a laparoscopic or open approach.

**Laparoscope-Assisted Vaginal Hysterectomy (LAVH)** means starting the surgery through the abdomen with a laparoscope (2-4 small incisions) then extracting the uterus and closing the vaginal vault from a vaginal approach. Most LAVH patients would go home the same day. I personally prefer TLH or vNOTES-H over LAVH.

**Total Abdominal Hysterectomy (TAH)** means operating through an open abdominal incision (laparotomy). The larger incision usually leads to more postoperative pain and longer “down-time.” In “the old days” having a laparotomy meant staying in the hospital 2-4 days, but lately I’ve had a number of patients go home one day after TAH. TAH is usually advised if the uterus is extremely large, or if very severe adhesions or severe endometriosis masses are anticipated by past history, physical exam, or ultrasound images. Any size uterus can be removed this way, usually through a transverse “bikini” incision, occasionally an up-and-down midline incision. I’ve developed some tricks through the years (and decades) to get extremely large uteri out through skin incisions smaller than the uterus. Any of the other hysterectomy routes could possibly evolve into a TAH---in other words, situations could arise during TLH, vNOTES H, TVH, or LAVH mandating opening the abdomen to safely complete the surgery.

**Supracervical Hysterectomy (SCH)** means removal of the body of the uterus, but leaving the cervix in place, attached to the top of the vagina. SCH must be done via laparotomy or laparoscopy---SCH can’t be done vaginally, because the first step of a vaginal hysterectomy is cutting the cervix from the upper vagina. There are people who believe this type of hysterectomy results in better sexual function and enjoyment, and lowers the risk of future vaginal prolapse (as opposed to total hysterectomy). However, medical studies comparing long-term outcomes after both total hysterectomy and supra-cervical hysterectomy show that there is no difference in the frequency of urinary symptoms, bowel symptoms, sexual frequency and enjoyment, or orgasm ability. Leaving the cervix in place poses a risk of future cervical cancer. Up to 25% of women who choose supra-cervical hysterectomy will still have menstrual periods (usually light) because of some surviving endometrium at the top of the cervix. I do not advise SCH, but I can do it if you insist.

**WHY WOULD HYSTERECTOMY BE OFFERED AT THE TIME OF RISK-REDUCING SURGERY, IF THE UTERUS IS HEALTHY AND NOT CAUSING ANY PROBLEMS?**

Great question. By far the most important part of risk-reducing surgery is Bilateral Salpingo-Oophorectomy (BSO, removal of both fallopian tubes and ovaries). That’s what virtually eliminates the risk of future ovarian and fallopian tube cancer, and markedly reduces the risk of future breast cancer. Increasingly, experts are encouraging or offering removal of the uterus too, even if it’s not causing problems yet.

The reasons are two-fold. First, with no tubes or ovaries, the uterus is clearly not needed for childbearing anymore, so it’s “dispensable.” Removing it pretty much eliminates any chance of future cervical or uterine cancer.

A more compelling reason for including hysterectomy in risk-reducing surgery is a little more complicated. Since most risk-reducing surgery is done in the pre-menopausal years, we usually recommend hormone therapy afterwards to replace the estrogen from the ovaries that were removed. If the uterus is removed, ERT is prescribed (estrogen-only). If the uterus is conserved, HRT is needed (both estrogen and progesterone). ERT is, in general, “safer” than HRT (a detailed discussion of this is in Chapter 3). Thus, if risk-reducing surgery includes hysterectomy, hormone therapy is safer.

* **Chapter 2: OOPHORECTOMY**

**INTRODUCTION**

Removing presumably-healthy ovaries at the time of hysterectomy is optional. It is a decision that must be made before the surgery. There are no “rules” that apply to every woman---the decision is made on a case-by case basis after a discussion between patient and surgeon. In general, the older a woman is the more likely I am to advise removal of normal ovaries, and the younger a woman is the more likely I am to advise keeping them. Here are some things to think about when deciding whether or not to have me remove normal ovaries.

**WOMEN WHO SHOULD STRONGLY CONSIDER OOPHORECTOMY ALONG WITH HYSTERECTOMY:**

**Women age 45 or greater** Women undergoing hysterectomy at age 45 or greater who have normal ovaries and absolutely no family history of breast or ovarian cancer should still consider having their ovaries removed at the time of hysterectomy for the following reasons:

* **To prevent ovarian cancer** Women with a negative family history have about a 2% lifetime risk of getting ovarian cancer. Removing the ovaries reduces the risk to almost zero. Ovarian cancer is seldom diagnosed at an early stage, and has a very high mortality. Removing healthy-appearing ovaries is the most effective prevention strategy.
* **To prevent breast cancer** In the general population, removing healthy ovaries before menopause reduces the risk of future breast cancer by as much as 50%.
* **To prevent future surgery for benign ovary problems**
* **They are of limited benefit** After age 45, healthy ovaries only have a few more years of meaningful hormone production left. Most women are menopausal by age 50-52. If ovaries are removed at the time of hysterectomy, almost every woman can find a satisfactory estrogen replacement therapy to mimic the estrogen that would have come from the ovaries. Not having a uterus allows ERT (estrogen-only), which is felt to be “safer” than HRT estrogen and progesterone together).

**Women with BRCA1 or BRCA2 mutations** Some families have gene mutations that markedly increase the risk of breast and/or ovarian cancer. Women who have tested positive for either BRCA1 or BRCA2 should be offered risk-reducing oophorectomy by age 40, or whenever childbearing is complete. Removing normal ovaries from women with BRCA mutations reduces the risk of both breast and ovarian cancer. The earlier they are removed, the greater the risk-reduction.

**Women with a family history of cancer of the breast, ovary, colon, stomach, lung, or lymphoma** Having a family member with ovarian cancer creates a 10% lifetime risk of ovarian cancer. Women with a family history of breast cancer are 2-10 times more likely to get ovarian cancer than women with no family history of breast cancer. Having colon, stomach, lung, or lymphoma cancers in the family increases a woman’s risk of ovarian cancer significantly.

**Women with a personal history of breast cancer** Oophorectomy reduces the risk of breast cancer recurrence in the same or opposite breast. Some studies show that the risk of breast cancer was reduced by 30-50% in women who had hysterectomy with bilateral oophorectomy.

**Women with a mass on one or both ovaries** An ovary should be removed if there is a mass greater than 6 cm, a cyst with solid parts, of if there is a cyst with a high likelihood of coming back at a later date (e.g. endometriosis cyst) requiring repeat surgery.

**Women with severe pelvic pain, painful sex, or endometriosis** Hysterectomy with oophorectomy relieves endometriosis pain over 90% of the time. Hysterectomy alone relieves pain less than 50% of the time. This is because ovaries make high levels of estrogen that can re-stimulate the growth of endometriosis in the pelvis even after the uterus is gone. Plus, the ovary itself is a popular site for endometriosis to grow, even if it looks normal at the time of the surgery.

**Women with severe Premenstrual Syndrome (PMS) or severe premenstrual migraines** Severe premenstrual mood disorders and premenstrual migraines can be socially-crippling. Anxiety, rage, and depression can have serious impact on enjoyment of life, family, friends, and work. PMS and cyclic migraines can continue even after hysterectomy, if the ovaries are left in place. Removing the ovaries at the time of hysterectomy eliminates the wild swings in hormone levels responsible for PMS, and allows estrogen replacement (ERT) in steady, even daily doses.

* **Chapter 3: HORMONE THERAPY (HRT or ERT)**

**INTRODUCTION**

Taking hormone therapy after menopause (either natural or surgical menopause) is optional. If I cause surgical menopause by removing your ovaries, I will probably recommend ERT after the surgery, continued until a “normal” age for menopause, somewhere around age 50-55. This should help you recover from surgery without severe hot flushes, and in the long run it should help maintain vaginal health and prevent osteoporosis. For most women, taking ERT until a normal menopause age provides more benefit than risk. We feel that , in general, ERT is “safer” than HRT, so taking hormones after hysterectomy is safer than taking hormones with an intact uterus. A detailed summary of risks and benefits is at the end of this chapter.

First, a brief review from the vocabulary lesson:

* **Hormone Replacement Therapy (HRT)** A combination of estrogen and progesterone. This is the type of hormone therapy recommended for women who still have a uterus, as estrogen-only could cause endometrial hyperplasia or cancer.
* **Estrogen Replacement Therapy (ERT)** Estrogen-only hormone therapy, used by women who no longer have a uterus to worry about.

 **BRIEF HISTORY OF HORMONE THERAPY, AND ME**

When I graduated from Indiana University School of Medicine in 1985, we believed that postmenopausal hormone therapy was a panacea---that it would help prevent heart disease, osteoporosis, vaginal atrophy, hot flushes, urinary incontinence, cognitive decline, and aging in general. Around 2001, findings from the large Women’s Health Initiative study began to dispel most of these beliefs, and we became concerned that hormone therapy may actually *increase* the risk of heart disease, stroke, clots, and breast cancer in certain women.

So, interestingly, my 34-year career is divided into two lengthy segments: 16 years of enthusiastically endorsing hormone therapy for virtually all postmenopausal women, followed by 18 years of cautiously prescribing and warning about possible risks.

Widespread panic among doctors and patients around 2001 resulted in hormone therapy prescriptions dropping by 80% or more. Since then, further analysis of Women’s Health Initiative data and many other studies have lessened our fear of hormone therapy to a degree. Over time, it’s become clear that there are definite benefits to hormone therapy, as well as risks.

The diseases we’re concerned about with regards to hormone therapy are multi-factorial (they’re generally not “caused” by one simple thing). The risk of getting cardiovascular disease, heart attack, stroke, blood clots, or breast cancer is influenced by many things, including genetic predisposition, underlying medical problems, lifestyle, diet, smoking, obesity, exercise, childbearing and breastfeeding history, and whether or not somebody took hormone therapy. If somebody who took hormone therapy is diagnosed with one of these diseases, it’s unlikely that hormone therapy was the one-and-only cause.

**BENEFITS AND RISKS OF HORMONE THERAPY**

While there is no definitive study on hormone therapy risks, and likely never will be, here are some reasonable conclusions that can be drawn from existing studies:

**BENEFITS OF ERT AND HRT**

* Reduced frequency and severity of hot flushes and night sweats
* Reduced risk of osteoporosis and fracture (with long-term use)
* Helps maintain vaginal health (elasticity, lubrication, overall well-being)
* ERT might reduce the risk of cardiovascular disease/heart attack (**not** HRT)

(hormone therapy has not been shown to prevent urinary incontinence or cognitive decline as we once hoped)

**RISKS OF ERT AND HRT**

*With regards to cardiovascular disease/heart attack*

* HRT increases the risk, most notably shortly after starting therapy OR if therapy is begun after age 70
* ERT does not increase the risk, and may even reduce the risk

*With regards to stroke*

* Both ERT and HRT increase the risk, independent of age

*With regards to venous thrombo-embolic disease (blood clots in legs or lungs)*

* Both ERT and HRT increase the risk, most notably in the first two years of use (but to put it in perspective, pregnancy increases the clot risk twice as much as hormone therapy does)

*With regards to breast cancer*

* HRT slightly increases the risk of breast cancer diagnosis (but, the breast cancers diagnosed in women who’ve used HRT tend to be more localized and have better prognosis for cure)
* ERT does **not** increase the risk

**SUMMARY: “TAKE HOME MESSAGES” REGARDING RISKS AND BENEFITS OF HORMONE THERAPY**

* Valid reasons for using HRT or ERT are: relief of hot flushes, osteoporosis prevention/fracture risk-reduction, maintaining vaginal well-being.
* HRT and ERT should **not** be used with the intent of preventing heart disease or strokes.
* In general, ERT is “safer” than HRT.
* HRT and ERT are relatively safe if started at or around the time of menopause, or in the 50s.
* HRT and ERT are significantly riskier if started in the 70s, in women who already have heart or blood vessel disease, or in women with risk factors for stroke, heart attack, clot, or breast cancer.
* **Epilogue: SEX AFTER HYSTERECTOMY**

It is common for sexually-active women to wonder if hysterectomy and/or oophorectomy could worsen their sex-lives. That is a natural thing to wonder, since hysterectomy involves operating on and sewing the top of the vagina, and the vagina is an important part of sex. Plus, estrogen from the ovaries is important for lubrication and vaginal health, so it’s normal to wonder if removing ovaries could worsen sex.

Good news: If sex is enjoyable for you now, it will probably be just as enjoyable or even better after you completely recover from hysterectomy, with or without oophorectomy. If sex is *not* enjoyable for you now, it might become enjoyable after hysterectomy. If uterine problems (bleeding, pain, pressure etc.) are causing you to not desire or enjoy sex, it makes sense that removing the uterus may make sex better!

Removing just the uterus and fallopian tubes does not affect ovarian estrogen production, so it shouldn’t change your hormone levels. Removing both ovaries at hysterectomy (if you’re not already menopausal) could affect sexual function over time, by reducing vaginal lubrication, elasticity, and overall well-being. Taking an appropriate dose of estrogen (ERT) until a normal menopause age should prevent this problem.

Hysterectomy (done properly) should not interfere with the health or function of the vaginal lubrication glands. The “G Spot” and nerves responsible for orgasm are several inches away from the hysterectomy incision, so hysterectomy is unlikely to affect orgasm frequency or quality.

Sexual desire, sexual function, and orgasm ability are extremely complex. Women are much more complex than men, in a good way. So many different things interact that it’s very difficult for any researchers to do a definitive study on the effect of hysterectomy on sexual function. Here is a partial list of things affecting sexual function in women:

* Age
* Hormonal status (menopause, perimenopause)
* Gynecologic issues (endometriosis, fibroids, adhesions etc.)
* Previous sexual experiences
* Intimate partner relationship problems (or lack of problems)
* Family problems
* Stress
* Psychiatric disease
* Past history of abuse (sexual, physical, or emotional)
* Medical problems
* Surgical history (hysterectomy, oophorectomy etc.)
* Prescription and recreational drug use

The list goes on and on. At any rate, medical studies that seek to analyze the effect of hysterectomy on sexual desire and function tell us that in the vast majority of women, hysterectomy does not worsen sexual desire, frequency, enjoyment, or orgasm ability.