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How to decide if you might benefit from:
Hysterectomy (removal of the uterus)
Oophorectomy (removal of the ovaries)

Any surgery should be done for a good reason, by the most appropriate surgical route, in the least debilitating way, and allowing for the speediest recovery of function. The decision for removal of the uterus or the ovaries involves two separate considerations, and two different sets of reasons. Hysterectomy will be considered first, and removal of the ovaries will be discussed later in this paper.

We will list a few definitions, as well as background information about hysterectomy. We will also discuss the reasons why some women would benefit from surgical removal of the uterus while others may happily avoid surgery.

First: the older surgical approaches (incisions):

Total Abdominal Hysterectomy (TAH): This most commonly performed surgery requires a four to eight inch abdominal incision (vertical if cancer or large mass, and horizontal for benign and smaller masses) to remove the uterus, and ovaries, if needed. It can be done for any size uterus, for women who have had children and those who have not. This type of surgery is still done, but only for women who cannot or should not have the less invasive techniques listed below.

Vaginal Hysterectomy (VH): The surgeon operates entirely through the vagina, pulling the uterus down through the vagina into view, disconnecting the cervix, and then the rest of the uterus. To be a good candidate for a vaginal hysterectomy, a woman must not have a cancer, or large mass, and must usually have had a baby or two (childbirth widens the vagina and relaxes the connections of the uterus so it can be pulled down into the vagina to do the operation). There is no abdominal scar. It usually requires only one day in the hospital and about two weeks away from work. Vaginal hysterectomy is a preferred route if all the specific requirements are met: smaller uterus, no cancer, vaginal/ pelvic floor laxity. The only problems with this route is that the surgeon cannot always reach the ovaries to remove them (when necessary), cannot examine the upper abdomen cavity, cannot easily perform removal of adhesions (if present), cannot examine for and remove endometriosis (if present).

Laparoscopic Assisted Vaginal Hysterectomy (LAVH): The LAVH also involves removal of the pelvic organs through the vagina, but the initial phase of the surgery (that involves cutting the ovarian attachments) is done through the use of a laparoscope and through several quarter inch incisions in the abdomen. It is done in this way because the surgeon deems that the ovaries cannot be disconnected properly by operating only through the vagina. LAVH is usually performed on women who can have a vaginal hysterectomy, but need to be certain the ovaries are removed, or who have

had surgeries which make the vaginal route alone more risky or less successful, or who have a cancer. There still must be vaginal laxity and openness, as seen after childbirth. Abdominal scars consist of two to four quarter-inch incisions. Usually two days in the hospital are needed with two weeks away from work. Many OB/GYN surgeons can do this procedure, but not all.

Laparoscopic Supra-cervical Hysterectomy (LSH): This type of hysterectomy involves the cutting of the lower segment of the uterus (the cervix) from the uterine body. This lower segment is left attached to the vagina. It was previously touted as preferentially preserving a woman's sexual function and preventing prolapse, but all current research shows that these claims are invalid. Studies comparing women with total hysterectomy to those who have had supra-cervical hysterectomy reveal that both groups have similar sexual function, satisfaction, and sexual frequency. Research results confirm that there is no benefit in terms of sexual enjoyment or prevention of urinary incontinence or pelvic floor defects later in life. The women with supra-cervical hysterectomies may have monthly bleeding (that coincides with their periods), may need progesterone supplements in their menopause to prevent a condition named hyperplasia (a condition that can lead to cancer of the cervix). A few may develop fibroids, pain or cervical cancer later in life. Many women may have to have their cervix removed in order to alleviate pain or bleeding that persisted after the removal of the body of the uterus. Dr. Garcini does not recommend this type of surgery.

And then there is Dr. Garcini's preferred and most frequently recommended method:

Total Laparoscopic Hysterectomy: This procedure involves removing the uterus by operating with a laparoscope and several key hole (quarter-inch) incisions in the abdominal wall. Tissues that are removed are passed through the opening in the vagina or through one of four of the tiny keyhole abdominal incisions. Massive uteri and ovarian cysts, cancer and pre-cancer can all be treated by laparoscopic hysterectomy. Because there is no operating through the vagina (though smaller pieces of tissue can be passed down through it), there is no requirement for a wide vagina or vaginal/pelvic floor laxity from childbirth, and no problem with increased urinary incontinence risk later. Hospital stays are shorter, and blood loss is decreased. Pain is less and time off from work is only two to three weeks.

Total laparoscopic hysterectomy can be performed using the daVinci robotic platform by Intuitive Surgical. This tool allows the surgeon to have better visualization of the surgical field. The laparoscope has binocular vision that allows the surgeon to have (3-D) depth perception and up to 10X magnification of the surgical field that is not available in regular laparoscopy. In addition, the surgeon has increased precision and flexibility when performing surgeries with the robotic instruments.

Hysterectomy facts:

Now a few good facts about hysterectomy: No matter what you have read or found on the internet, or heard from your friends—what follows are the facts for the vast majority of women. Most women who have had a hysterectomy are happy with their results. With some exceptions, the internet is not a reliable source for surgical outcomes. In medicine, we report patients' opinions and their experiences by analyzing hundreds of questionnaires and publishing the results so that you know what the probable results of your surgery will be. Therefore you are not misinformed or

biased by the individual stories that you have heard or read. In addition, the stories that you have heard or read may have had multiple other factors that were not accounted for, such as whether or not the ovaries were removed, and if so, was hormone therapy prescribed afterward? In the correct dose? Why was the hysterectomy done in the first place? Was it necessary? Was there a cancer? Was radiation given after the surgery? Were there adhesions? Was there an infection? Was there endometriosis? All of these factors can impact a woman's postoperative comfort and sexual function. So, what follows are the facts.

- A. **Hysterectomy does not ruin your sex life.** Orgasms will be the same. Lubrication will be the same. Your libido will not change. But be aware that these things do change as you age, and particularly as a function of your hormone status. The tissues cut during a hysterectomy are at least 4 inches away from any of the nerves that play a role in orgasm. This surgery will not ruin sexual function. Neither will removal of the cervix along with the uterus. If you know someone who claims her sexual function was worse after hysterectomy, suggest that she see another gynecologist to make sure that she is hormonally well tuned and medically well-tuned (thyroid and hormones and other things checked). From many studies, including a 1999 study of 1,299 Maryland women undergoing hysterectomy, the overwhelming evidence is that women thrive sexually and emotionally after hysterectomy when the hormones are tuned and cancer therapy is not needed. In the Baltimore study, most women had sex more often, and more regularly after their surgery. In addition, 71% had resolution of their previously lower libido, while 4.3% reported a new problem with low libido after the surgery. 84% had resolution of pain during intercourse, while 2.3% developed a new pain during intercourse. 65% of women who had few or no orgasms before surgery noted improved orgasmic ease and frequency afterwards, while 2.6% developed a new problem with orgasm frequency. After hysterectomy, more women had stronger orgasm, and fewer women were sexually inactive (Rhodes et al, Hysterectomy and sexual functioning, JAMA, 1999). Ask to see the book in our office with the original articles on this research.
- B. **Hysterectomy (and removal of the cervix) will not cause prolapse of your pelvic organs, or bladder leakage.** Studies of over 27,000 women in the Women's Health Initiative confirm that hysterectomy does not increase the risk of bladder leakage (65% vs. 63%), prolapse of the bladder (32% vs. 33%) or prolapse of the rectum (19% vs. 18%)(Hendrix, AOG, 2002, Hendrix, JAMA, 2005). Having children, smoking and obesity were the strongest risk factors to predict for incontinence and prolapse. In fact, research also shows that weight loss is one of the most effective non-surgical remedies for urinary leakage of all types.
- C. **Hysterectomy will not result in your aging faster.** Neither will removal of the ovaries. If you are under or around age 50, you will probably want to take hormones for a short while to mimic your natural gradual transition into menopause. But remember that no matter what, you will continue to age! (That's a good thing.) About 90% of women find they do not need hormones to feel like their normal selves after their early fifties, even though most take hormones for until that age. The menopausal symptoms simply go away for most, so the hormones are no longer needed. The hormones would not and could not prevent aging, wrinkles or arthritis.
- D. **Hysterectomy will not make you get fat.** Neither will removal of the ovaries. Research tells us that many women gain weight as they age, especially if they don't exercise and modify their eating habits. So if you are going to be one of those women and eat more than you

need and exercise less than you should, then you will gain weight. Hormones won't make you gain weight or overeat. In a research project in which women took a pill for three years, half receiving estrogen and half a placebo or blank pill, the women on the blank pill gained about 6 pounds and the women on the estrogen gained half as much. Conclusion: you must exercise all your life and eat no more than you need all your life.

- E. Hysterectomy will not harm your sense of womanhood or femininity. Some women are afraid that they will no longer be womanly or appear womanly to their spouses. Nothing could be farther from the truth. Your sense of womanhood is in your brain, your soul and your heart, but not in your genitals. No surgery can alter that. If you are under age 50 or so and choose to have your ovaries removed, you will continue to feel normal with low dose hormone therapy that mimics your ovarian function until you would have naturally entered menopause. Removing only your uterus creates no hormonal changes. Your sexual partner cannot specifically tell that you have had a hysterectomy unless you choose to say so.
- F. Hysterectomy should not leave the cervix in. Research (Thakar NEJM2003, Kim AAGL2003) comparing outcomes of women who had a supracervical vs. total hysterectomy confirm that urinary frequency, stress incontinence, bowel symptoms, enjoyment of sexuality, frequency of sexual activity and of orgasm were the same whether the cervix came out with the uterus or not...however, in all reports of supracervical hysterectomies (where the cervix is left behind), up to 25% of women having a sub-total hysterectomy had cyclical menstrual bleeding and 2% had cervical prolapse (van der Stege, JSLS,'99) and all of them needed to take a progesterone if they needed estrogens after their surgery because 23% have estrogen sensitive endometrium left in the remaining endocervical canal (Okaro, BJOG, 2001). There are many reports about fibroids, chronic pain and cervical cancer in the cervical stump long after the surgery, necessitating re-operation to remove the cervix in 24% (Okaro, BJOG, 2001). Dr. Garcini does not recommend subtotal (supracervical) hysterectomies.

Why would you need a hysterectomy? (ovaries discussed later)

Removal of the uterus is performed to prevent, alleviate, or treat pain, pressure, bleeding, or cancer. Each reason is described in detail in the following pages.

I.Cancerous or pre-cancerous problems of the ovaries, uterus or cervix:

Cancer or pre-cancer of the uterus – When cancer grows inside the uterus, both the uterus and the ovaries must be removed in their entirety because their associated lymph nodes are connected and can allow easy spread to the other organ. The cervix cannot be left in as any type of uterine or ovarian cancer can spread to the cervix, making it Stage II rather than I. If a pre-cancer of the uterine lining is present, it is appropriate in many cases to employ one or two 3-month trials of progesterone or progesterone like substance (progestin) to regress the overgrowth of the lining. This therapy is successful in about 80% of women who do not have tiny areas of early cancer reported in their uterine biopsy. If there is still precancerous overgrowth of the lining after two progesterone trials, then a laparoscopic hysterectomy will be useful in preventing the progression to a cancer later on.

Increased risk of uterine or tubal cancer – If you have an extensive family history of women developing uterine cancer, whether from obesity, or for genetic mutations (HNPCC or BRCA), removing your uterus can prevent another operation later, prevent bleeding management problems, and potentially save your life. While BRCA mutations most typically involve new cancers of the fallopian tubes and/or ovaries, reports have been published of papillary serous (ovary-like cancer) cancer of the uterus. Since uterine cancer is the most common cancer women get in their pelvis, consideration for removal, especially in the presence of other risk factors, is reasonable. One final reason, for women with tendencies to get PMS or breast cancer, is that any uterine bleeding in the perimenopause or menopause is treated with progestins (a hormonal stimulant for PMS).

Pelvic mass, infection, cancer or pre-cancer of the ovaries – A pelvic mass must be examined by both physician and ultrasonographer to determine if it is a cancer of the ovary. If the strict criteria for a benign growth are met and no worry for cancer is present, then no surgery is needed, unless the mass is huge and imposes by its size or causes pain by twisting. Many women's ultrasound picture falls into the gray area of pelvic masses – that is, their ovarian masses have one or two features of a malignancy, but appear otherwise probably benign. These tumors must be surgically investigated by removing them laparoscopically and giving the tumor tissues to the pathologist to examine under the microscope during the surgery to see if a malignancy is present. While most are indeed benign, some are found to be malignant in the earliest stages.

If a cancer is found in an ovary, then the entire uterus and both of the ovaries must be removed, along with the appendix, the lymph nodes, and a fatty pad in the abdomen called the omentum. The reason for removing all this tissue is because ovarian cancer likes to spread there. This is not negotiable, except for one case; unless you have a very rare, early stage of ovarian cancer that is a very mild type and you have never had any babies, and are planning to. In this rare situation, the ovary can be removed and the cancer staging procedures done, but the other ovary and the uterus are left in for fertility without risk to the patient.

Pre-cancer and cancer of the cervix – Recurrent abnormal pap smears which have been fully investigated by thorough colposcopic (magnified) examination can often be treated by removal of the uterus. This reduces likelihood that the pre-cancer will return and reduces chances of either ovarian or uterine cancer. It is an optional treatment, however, and can sometimes be avoided by careful colposcopic, Laser or Loop excision treatments. When cancer of the cervix is present, a specialized “radical” hysterectomy with a lymph node dissection is performed through the laparoscope.

2. Benign problems of the uterus and ovaries, and pain

Fibroids of the Uterus – Fibroids are benign masses of overgrown benign muscular fibers in the wall of the uterus. The only reasons to remove a uterus for fibroid growth are if it causes heavy or chronic bleeding, pain or pressure, frequent urination, blockage of the ureters (tubes that bring the urine from the kidneys) or grows during the menopause while not on hormones. Then a total hysterectomy should be done, usually through the laparoscope.

But most fibroids DO NOT BOTHERSOME!!! The rule is that fibroids that do not bother anyone should be left alone. Many gynecologists have been too quick to tell a woman she needs a hysterectomy when her fibroids are not bothering her, or not bothering her very much. Each woman should be the judge for herself. Some women prefer to avoid hysterectomy because

menopause is near, and their symptoms are not too significant. This is reasonable because fibroids usually shrink about 30% in menopause.

Some women allow fibroids to grow to sizes that are huge or cause discomfort and avoid hysterectomy either because they have heard awful things about hysterectomies, or they don't choose to take the time off from their busy lives to make their life a little more comfortable. Some women feel they cannot take this amount of time for themselves or draw attention from their family to have surgery. They should honor their body and value their life experience and provide for themselves as well as they provide for their families.

Heavy bleeding can be caused by fibroids or polyps on the inner mucous lining of the uterine cavity either at the wrong times or in huge quantities, even when the fibroids are small. Uterine polyps, which are small skin tags inside the cavity, can also cause bleeding, but an ultrasound can show these as separate from the fibroids. A biopsy of the lining of the uterine cavity will need to be done to confirm that any bleeding is not due to a cancer in the endometrial cavity. When bleeding is very heavy each month, many women spend the next few weeks after the period regaining strength as they use their energy to make new blood to replace the losses. This cycle, if repeated, or is heavy, can cause anemia, severe fatigue and even depression this way. A laparoscopic hysterectomy can stop the hemorrhage, prevent anemia, and allow blood stores to replenish, restoring energy and vitality, and a life free of monthly hemorrhage.

If fertility is desired in a young woman, it is appropriate to remove smaller fibroids under the uterine lining from a hysteroscopic approach (a scope passed through the cervix up into the uterus). When fertility is not desired, then the safest, simplest single approach is to remove the uterus.

Pelvic pain or pressure can be caused by fibroids on the outside of the uterus. These can become quite large and create a mass effect in your pelvis, which you can often feel. The larger fibroids can be felt above the pubic bone, but still may not cause symptoms of pelvic pain, bladder pressure, low back pain or frequency of urination. When the uterus can be felt below the bellybutton, many women notice pressure on their bladder or have low back pain. Laparoscopic hysterectomy is the easiest and safest procedure for them, with minimal blood loss and maximal probability of resolving the problem with one procedure.

If a younger woman has large fibroids and realistically desires to preserve her fertility, it is appropriate to laparoscopically remove the larger outer fibroids and avoid hysterectomy. This should be done at least 12 weeks before she desires to becomes pregnant, so that the surgery will not prevent implantation of the pregnancy or cause pain during the pregnancy. The fibroid are removed from the uterus, and placed in a special containment bag. The edges of the containment bag are brought to the surface through a small laparoscopic incision and the large fibroids are removed piecemeal from inside the bag (thus avoiding any spreading of the tissues in the pelvic or abdominal cavity).

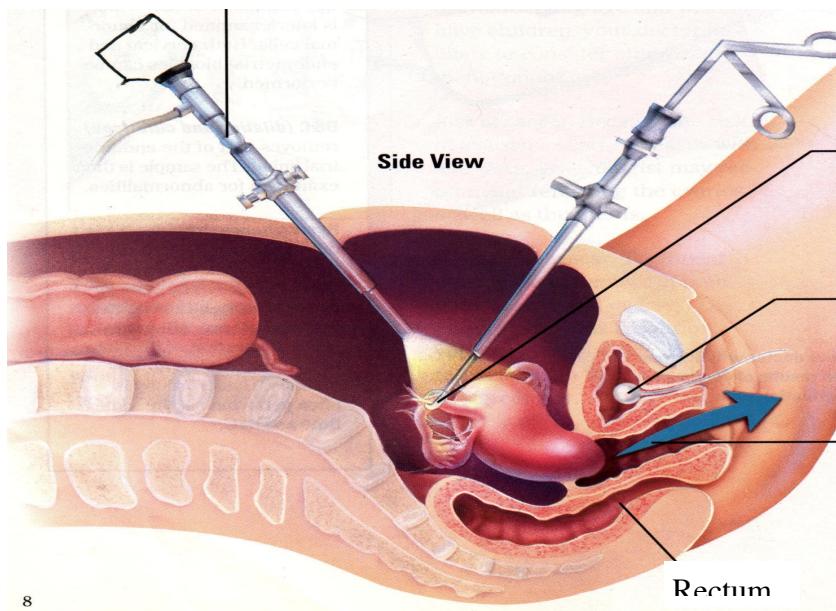
Pain before or during periods - Pain can be caused by large fibroids, adenomyosis (endometriosis diffusely located within the walls of the uterus), endometriosis in the lining of the pelvic wall or organs. Adhesions (abnormal attachments between pelvic organs or attachment between pelvic organs and the pelvic sidewall) can also be a source of pelvic pain. Adhesion formation can be caused by any source of inflammation in the pelvis.

Endometriosis is a condition in which the tissue that normally lines the cavity of the uterus is found located in extra-uterine locations. It usually grows and bleeds each month just like the endometrial cavity lining. It causes pain because the tissue that is in pelvic locations where it is not supposed to be is responding monthly to the hormonal triggers of the menstrual cycle (blood is an irritant and causes pain when it is found outside of blood vessels). Pain in the pelvis that becomes worse just before and during the period is likely due to endometriosis. Many times endometriosis can be improved by surgically removing lesions in the pelvis, followed by the start of medication to decrease the risk of recurrence of the lesions.

If the endometriosis is diffusely located within the walls of the uterus (adenomyosis) then removal of individual lesions is not possible. Options for treatment may include hormonal suppression using low dose oral contraceptive pills or the Mirena progestin releasing IUD. If these treatment modalities are not effective, then hysterectomy is advised.

Painful sexual activity is usually caused by endometriosis, adenomyosis or, possibly adhesions from prior inflammation or prior surgery. If NSAIDs do not relieve pain during sexual activity, then an anatomic cause is suspected and surgery can relieve this pain with reasonable effectiveness.

Infection of the uterus, tubes or ovaries. Because pelvic infections are frequently recurrent and occasionally associated with malignant changes, surgery to remove the uterus, tubes and ovaries is standard, especially if fertility is no longer desired.



Above: cutaway of abdomen inflated with gas to allow surgical removal of the uterus and/or ovaries.

Quality of life: do you deserve it?

Hysterectomy causes short-term morbidity, but appears to increase average life expectancy slightly among peri-menopausal women and is cost-saving. Medical outcomes and economic consequences favor the hysterectomy over trying to preserve the uterus as medical remedies are most often unsuccessful, and ultimately the surgery needs to be done. Research on women undergoing

hysterectomy shows that 78% are symptom free after their operation, and another 14% have reduced symptoms, while 8% have new symptoms. Fully 95% report that they were pleased with their HRT or it exceeded expectations 5% reported not liking their HRT because for some it contained testosterone. Physical well-being was improved in 80% and unchanged in 15% and worse in 4.6%. 32% noted less depression than before the surgery, while 65% had no depression, and 4% became more depressed. Overall, 3% were dissatisfied. Satisfaction was associated with understanding the need for the surgery, a positive outlook, removal of the ovaries, taking HRT for at least the short-term, complete symptom relief, a quick recovery, improved physical well-being, and the absence of depression (Khastgir et al, Am J Ob/Gyn, 2000). In another study, at 12 and 24 months after their hysterectomy 95.8% and 96.0%, respectively, reported that the hysterectomy had completely or mostly resolved the problems or symptoms they had before surgery; 93.3% and 93.7%, respectively, reported that the results were better than or about what they expected; 85.3% and 81.6%, respectively, reported that their health was better than before the hysterectomy; and 87.9% and 93.1%, respectively, reported being totally recovered.

After reviewing your symptoms that have led you to examine this document, it is only you who can decide whether your life could be significantly improved by eliminating the gynecologic problems that brought you to this point. If your problems do not impact the quality of your life, then there is no benefit to surgery. If you have significant room for improvement, then make the decision to create a new life for yourself. You definitely deserve it.

Will I be happy after I have a hysterectomy?

The highest probability is that you will forget that you had a hysterectomy because your uterus will no longer be a source of pain or pressure or bleeding or cancer. Because I only do hysterectomies on women who will benefit from them, my patients are healthier after their surgery than they were before.

Why would you need and/or want an oophorectomy?

If you are still in your fertile years, an ovary should be removed only if there is a large, complex or persistent mass on it or if you have intolerable pain from endometriosis. There should be an attempt to preserve the portion of the ovary that is normal, and to make sure the other ovary is also normal. While relief from your pain is not guaranteed, and cysts or tumors may recur, and surgery is effective in making certain that there is no cancer, and can reduce or eliminate the pain temporarily for conception. However the pain or mass may re-develop in the future whenever the ovaries and uterus are left in for fertility purposes.

If you are past your fertility years and need surgery for a mass or for pain and have normal ovaries, then consideration should be focused on permanent relief of pain, reduction in need for further surgery, preventing ovary and reducing risk for breast cancer.

If a woman undergoing hysterectomy is over 50, and has no problems with her ovaries, no pain suggestive of endometriosis or adenomyosis and no family history of breast or ovarian cancer, she may still consider having the ovaries removed at the time of her hysterectomy. The reason to consider this is because the risk of ovarian cancer in her lifetime is about 1.7% with a 1.5% chance of dying of it. Among the risk factors for ovarian cancer are increasing age, obesity, prior breast cancer, endometriosis, prior infertility treatments, never having had a baby, and a family history of

ovary or breast cancer. In one study of women who developed ovarian cancer, 14% of the women had previously had a hysterectomy and had preserved their ovaries. While it is impossible to say that all 14% could have prevented their ovarian cancer by having the ovaries removed earlier, it is reasonable to assume that most cases would have been prevented by removal of the ovaries.

Removing the ovaries will put you into the menopause, but the hormone therapy to keep you feeling normal is now done well and will keep you feeling normal. The goal would be for you to take bio-identical estrogen in a lower dose than your ovaries released, but enough to keep you feeling yourself, tapering the dose so you enter a natural menopause at about age 52 when most women enter menopause. Normally, the ovaries cease function (on average) at about age 52, with no known functional benefit after that age, only risk. This, however, should be a very individualized decision for each woman.

Estrogen replacement therapy until age 52 or so can be done easily and safely, and simply eases a woman into the same transition that she will enter into during the next few years of her life. In fact, replacement therapy doses of pure estrogen are much lower than the levels normally made daily up to age 51 by the ovaries. These low doses of pill, ring or patch estrogens are lower than the levels that the ovaries naturally secrete, and can easily prevent hot flashes, and protect bone density without any increased risk of heart disease or breast cancer, until age 60 (according to the Women's Health Initiative reports). There is a lifelong decrease in new and recurrent breast cancer risk after removal of the ovaries, even if women take low doses of pure estrogen to prevent hot flashes. It is entirely safe for women to use estrogen after their hysterectomy/oophorectomy until the age that the ovaries naturally quit, 51; and safe for even five more years, the Women's Health Initiative tells us. Heart disease and breast cancer risk were actually slightly lower for women using estrogen alone between ages 50 and 60.

To prevent ovarian cancer:

If a woman is not from a family with a known high-risk for ovarian cancer, her risk is about 2% and reduced down to zero by ovary removal. Given the high mortality rate (80%) of ovarian cancer, primary prevention strategies for ovarian cancer should be used whenever possible. From another research report: by removing women's ovaries who are having surgery and past their fertility, the overall incidence of ovary cancer would decrease by 15%, breast cancer rates would decrease by 50%, and colon cancer rates would decrease by 15% (Cape, Eur J Cancer Prev 1999). Research shows that few women undergoing prophylactic oophorectomy have regret about their decision.

To prevent ovarian cancer in women from families with cancers of the breast, ovary, colon, stomach, lung, and lymphomas. The risk of ovarian cancer was increased 50% in women with a family history of cancer of the stomach, increased by 70% in women with intestinal cancer, by 30% with lung cancer, and by more than 200% with breast cancer or lymphomas (Negri, et al. Eur J Cancer, 2003). Risk of ovary cancer is 17-fold, or nearly 10% lifetime risk, when the family history is positive for relatives with ovarian cancer. (Burgfeldt et al, Lancet, 2002) The chance of developing ovarian cancer associated with a family history of breast cancer was 2-10 times that of women not reporting a family history of breast cancer.

To prevent ovary and breast cancer in women with hereditary cancer genes. Among women who have a gene mutation for inherited breast and ovarian cancer (BrCa 1, 2, or HNPCC) removing the ovaries reduces ovarian cancer risk from about 27-44% to about 2-3%. (Rebbeck et al, NEJM, 2002)

Such women need annual rectovaginal pelvic examination, testing of CA 125 level, and transvaginal ultrasonography until completion of fertility. Oral contraceptive use appears to reduce the risk of ovarian cancer while fertility is being conserved. Once fertility is no longer needed, prophylactic oophorectomy/hysterectomy is suggested.

Women found to have a genetically increased risk of breast cancer should be counseled about options for management, including close surveillance, lifestyle modifications, chemoprevention with tamoxifen, enrollment in a breast cancer prevention clinical trial, and prophylactic mastectomy and/or oophorectomy.

To reduce risk of new breast cancer in the general population. Having the ovaries removed, especially early before menopause, reduces risk of new breast cancer by 50%, a benefit which lasts a lifetime. This may be because ovulations with progesterone secretion are eliminated, or because subsequent estrogen levels are lower, even with ERT.

To reduce breast cancer recurrence in women with prior breast cancer. Survival from breast cancer is improved, and the risk of ovarian cancer is greatly reduced by oophorectomy. Oophorectomy reduces new same-sided and opposite-sided breast cancer and recurrent breast cancer. The risk of new breast cancer was reduced in women who underwent bilateral oophorectomy with hysterectomy by 30-50%. The protection tended to increase with time since surgery, (Schaier et al, Int J Cancer, 1997, and Parazzini et al, Obstet Gynecol, 1997). The risks of subsequent breast cancer from low-dose ERT are not elevated over normal. It is shown that prophylactic oophorectomy may have a substantial protective effect on breast cancer risk despite subsequent low-dose or non-low-dose ERT, especially when prophylactic oophorectomy is performed at an early age.

NOTE: There is a published paper by Parker et al (Obstet Gynecol 2009) that you may have heard about that is a retrospective (look-back) analysis of nurses' yearly questionnaire responses recorded in the Nurses Health Study who had their hysterectomy in their forties and some had ovaries removed, comparing them with women who did not have their ovaries removed, and they "controlled the data" for taking of estrogen.

Let's look at the results of this study in two five-year periods: the first five years when they were all pre-menopausal and the second five years when they were post-menopausal. In the first 5-yr period, the 43 year olds who kept their ovaries had natural cycles of estrogen. They needed and took no extra estrogen, of course. The 46 year olds had oophorectomies, and some took estrogen, but were "controlled" out of the analysis. The 46 year olds who took no estrogen were "controlled" and remain in the analysis. We already know that removing all estrogen from a young woman puts her at increased risk of heart disease. Controlling for use of estrogen is an erroneous statistical maneuver that manipulates the data to show higher death rates in women who have their ovaries removed, when the real culprit is removal of ovaries without providing replacement estrogen.

In the second five-year period, the women who kept their ovaries and went into their natural menopause around age 51 will be more likely to take estrogen, compared with women who took no estrogen for their oophorectomies five years before, further reducing their risk of heart disease, breast cancer, stroke and DVT. Controlling for this use of estrogen is not equivalent to use of premenopausal estrogen.

This study should have stratified by use of estrogen, which would have revealed the data on removal of ovaries in younger women who take hormones (which we always provide and they nearly always take) versus who do not take ovaries, and the effects of continuing them as they progress through menopause.

No one would currently remove a woman's ovaries without making sure that she had some estrogen on board to replace what was removed. Had these authors not "controlled for taking of estrogen" then we would have seen that removing ovaries together with taking estrogen lowers risk of heart disease very nicely as was shown completely clearly in the prospective Women's Health Initiative.

Conclusions. Many women choose to keep their gynecologic symptoms because the symptoms are not bothersome, but those few women disabled by significant symptoms can have great improvement in their lives with surgery. When the reasons are real and strong for a hysterectomy and/or removal of the ovaries, women usually emerge from the surgery and recover their normal whole-life function with ease and vigor.

Always be certain that you agree with all the reasons for any surgery proposed, and that all your questions have been thoroughly answered. Do not undergo surgery unless you are convinced of the need for it, are fully aware of the risks and benefits, and have run out of non-surgical alternatives.

Always seek a second opinion if you are not sure about your decision!