

**If you are still in your fertility 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, 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, preventing further surgery, preventing ovary and reducing risk for breast cancer.

**If a woman undergoing hysterectomy is over 45**, and has no problems with her ovaries, no pain suggestive of endometriosis or adenomyosis and no family history of breast or ovarian cancer, she should still consider having the ovaries removed *incidental to her hysterectomy*. It is recommended only 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 very effective at keeping you feeling normal. The goal would be for you to take a bio-identical estrogen in a slightly lower dose than your ovaries released, but enough to keep you feeling yourself, tapering the dose over the years so you experience a natural menopause at about age 51, when most women enter menopause. Normally, the ovaries cease function at about age 51, with no known functional benefit after that age, only risk (cancer). This is why the standard of care is to recommend removal of ovaries incident to hysterectomy for women over age 45. But, all women having removal of their ovaries before age 55 or so should take hormones to keep heart disease at the lowest rate. (Research suggests that removal without using replacement hormones can increase your risk of heart disease.) Ask for the information brochure on hormones for women around their menopause.

Estrogen replacement therapy until age 51 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. These low doses of pill, ring or patch estrogens are slightly 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 ten 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.

**Make certain that a Pelvic mass is not cancer:** Your ovaries should be removed if there is a mass greater than 6 cm, or a cyst of any size that has solid parts, or if there is a significant chance

that a benign cyst can recur at a later date (e. g. endometriosis) requiring repeat surgery. If you have completed your fertility, eliminating pain, avoiding further surgery, and preventing a cancer become the priorities. If there is a complex overgrowth of tissue replacing the bulk of your ovary, then it should be removed to rule out the possibility of cancer. Ultrasound or sonography (same) is used by both the abdominal view--a wand is moved over the skin of your abdomen, and the vaginal view--a small wand is placed inside your vagina-- to obtain precise measurements of the ovaries and the uterus. This is the best tool for examining the pelvic organs.

**Relieve significant pain, during menses, during sex or other activity**, which can result from tumor growth, adhesions or endometriosis. Leaving even a normal appearing ovary inside when treating endometriosis or pelvic pain reduces the chance of successful pain relief from over 90% to under 50%. This is because the normal ovary secretes high levels of estrogen and can re-stimulate growth of endometriosis in the pelvic organs, and because the ovary itself is a popular site for endometriosis to grow at any time, even if it looks normal to the surgeon during surgery. For this reason it is advisable to remove both ovaries for greatest success in relief, if pelvic pain is the reason for surgery.

**Relieve disability from premenstrual symptoms (PMS)**, including premenstrual migraines and mood disorders such as severe anxiety, rage, and depression. Very few women have such severe symptoms that their lives are seriously impacted, but for some, these symptoms can be quite disruptive to their orderly living, PMS emotional changes can make some women do things they regret, or have to undo or apologize for out of control behavior, scheduling vacations and important events to avoid their episodes of PMS. Other symptoms such as depression, over-eating, lethargy, rage, tender breasts, migraines, etc. during the 3-10 days before your period starts may simply be bothersome. When birth control pills and antidepressants have not caused relief, removal of the ovaries is necessary, and providing pure estrogen in even daily doses. This can restore a woman to her even, normal, best function. For those few women with this degree of symptoms, removal of the ovaries can be life-restoring.

**Prevention of hormone-related migraines**, which typically occur just after ovulation, and just before the menstrual flow, can be accomplished by removal of the ovaries. This stops estrogen fluctuations completely and reduces or eliminates the cycle-related migraines. Both the uterus and ovaries must be removed, however, to obviate the need to balance any estrogen with progesterones which can cause PMS symptoms. After the removal of both ovaries and uterus, one only needs to take estrogen alone, which is the hormone that dominates during the second week of the cycle, when women feel most normal, even, and free of migraines.

**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, (Schairer 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.

**Quality of life: do you deserve it?** Hysterectomy causes short-term morbidity, but appears to increase average life expectancy slightly among perimenopausal women and is cost-saving. Medical outcomes and economic consequences favor the procedure. 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)

After reviewing your symptoms that have led you to review 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.

**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 ever, in 2009, 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.

### **Will I be happy after I have a hysterectomy/oophorectomy?**

The highest probability is that you will forget that you had this surgery because your uterus/ovaries will no longer be a source of pain or pressure or bleeding or cancer. Because I only do hysterectomies on women who will, based on medical evidence and feminist principles, benefit from that surgery, my patients are healthier and happier after their surgery than they were before. Ask them.

**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. We don't fix what ain't broken, so no one will have a hysterectomy/oophorectomy by Dr. O'Hanlan unless she really stands to benefit from one! 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 go to any surgery unless you are convinced of the need for it, aware of the benefits, have run out of non-surgical alternatives, and understand all the risks. If your doctor doesn't answer all your questions, hire another doctor!