

Health Care Maintenance
for
Women Undergoing
Risk-Reducing Ovarian Surgery
(GOG-0199)



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Cancer Institute



Since your family has a history of ovarian or breast cancer, you are understandably concerned about your own risk of these diseases. Generally speaking, if you or a close relative has a change (or “mutation”) in *BRCA1* or *BRCA2*—two genes known to increase the risk of ovarian and breast cancer—your risk (up to age 70) of ovarian cancer will range from 16% to 40%.

As a woman in this “high risk” category, you have been considering methods to manage and reduce your risk of developing ovarian or breast cancer. One approach is Risk-Reducing Salpingo-Oophorectomy (RRSO) or risk-reducing removal of the fallopian tubes and ovaries.

It’s very important to recognize that risk-reducing surgery is not risk-eliminating surgery—you may still develop serious health problems after your ovaries are removed. If you have them removed before natural menopause, you will enter menopause at an earlier-than-usual age.

Early menopause can increase your risk of cardiovascular disease and osteoporosis. Also, hot flashes are a common symptom of menopause. There are, however, a number of things you can do to help reduce these risks and manage your symptoms. It is important to talk to your doctor to identify the approach that will work best for you.

“An Ounce of Prevention...”

Long-term health maintenance is important for everyone, regardless of whether or not you are at increased genetic risk of ovarian cancer. We are optimistic that if you follow the guidelines outlined in this pamphlet, your chances of developing significant cardiovascular disease, osteoporosis, or breast cancer after RRSO may be greatly reduced.

What are the effects of RRSO?

Most RRSO procedures are performed on women in their 40s. If you are in this age range and undergo the RRSO procedure, you may experience menopause as much as 10 years earlier than normal. As a result, you will lose the beneficial health effects of normal female hormone production (estrogen, progesterone) by the ovaries.

Is Menopausal Hormone Therapy (MHT) safe?

The safety of using MHT after surgery if you are also at increased risk of breast cancer is uncertain. Some experts believe that MHT is safe in this setting when use is limited to five years or less, but other experts are less convinced of the safety of this approach.

What are the effects of early menopause?

Although there are some uncertainties, we do know that early menopause can affect your health. Some of the effects are desirable; for example, your breast cancer risk is reduced significantly.

However, some effects of early menopause are not desirable. For example, your risk of heart attack and stroke increase by about 50%. Also, your risk of osteoporosis (thinning of the bones), which can lead to bone fractures, is doubled. Fortunately, you can take steps to help reduce your risk of cardiovascular disease and osteoporosis. Additionally, although removal of the ovaries may help to reduce the risk of breast cancer in women with *BRCA1* or *BRCA2* mutations, there are other steps you can take to further decrease your risk.

What should I do?

This information summarizes what we currently know about how to manage the medical problems that can develop among women who undergo early menopause.

Following the guidelines provided here is not a formal requirement of the study, although we do suggest that you and your physician consider these suggestions. Contact your health care provider for more information.

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General Health Maintenance

1. Maintain your ideal body weight.
2. Participate in regular (3-4 times per week) aerobic exercise.
3. Avoid exposure to tobacco products. Do not smoke. If you do smoke, seek assistance in quitting. For additional help with smoking cessation, please call 1-877-44U-QUIT (1-877-448-7848).
4. Be moderate in the use of alcohol. For women, one drink per day is considered within acceptable alcohol consumption limits.
5. Adopt a healthy diet which emphasizes fresh fruits and vegetables, and reduces the consumption of animal fat and beef.
6. Prevent exposure to sexually transmitted diseases by practicing safe sexual behavior.
7. Avoid excessive sun exposure. Do not get sunburned.
8. Follow general health guidelines related to screening for other diseases such as cervical cancer and colon cancer.

Cardiovascular Health Maintenance

1. Monitor your blood pressure regularly (it should be less than 120/80), and treat high blood pressure if it is found.
2. Maintain your ideal body weight (your body mass index* should be less than 25).
3. Monitor your blood lipid levels (LDL cholesterol should be less than 100; HDL cholesterol target: 50-60), and treat unacceptable cholesterol levels.
4. Monitor your blood sugar periodically, and treat diabetes if it is found.
5. Keep your waist circumference less than 32 inches.
6. Participate in regular (3-4 times per week) aerobic exercise.
7. Do not smoke! If you do smoke, seek assistance in quitting. For additional help with smoking cessation, please call 1-877-44U-QUIT (1-877-448-7848).

Bone Health Maintenance

1. Participate in regular (3-4 times per week) weight-bearing aerobic exercise.
2. Monitor your bone density:
Ask your doctor for a baseline bone density test.
Repeat the scan periodically.
Treat bone loss aggressively:
 - o Take calcium and vitamin D after undergoing RRSO.
 - o Consider other medications, such as pamidronate, risedronate, tamoxifen or raloxifene, if your bone density continues to decline. Estrogen is also effective in the treatment of osteoporosis, but its safety for women who are at increased genetic risk of breast cancer is uncertain.
3. Do not smoke! Smoking can also increase the risk of osteoporosis. If you do smoke, seek assistance in quitting. For additional help with smoking cessation, please call 1-877-44U-QUIT (1-877-448-7848).

Breast Health Maintenance

1. Consult your physician regarding breast self-examination, since all the women who participate in this study are at increased risk of breast cancer.
2. Seek medical attention promptly if you detect an abnormality in your breast.
3. Have a clinical breast exam by your health care provider twice a year.
4. Undergo screening mammograms at least once per year.

* Body mass index (BMI) is calculated by dividing the weight in kilograms by the square of the height in meters, i.e.: weight (kg)/height (m)²

For more information, visit the study Web site at:

<http://ovariancancer.gog199.cancer.gov>

For additional brochures and general cancer information, call
NCI's Cancer Information Service at:

1-800-4-CANCER
(1-800-422-6237)



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