Understanding Your Genetic Test Result

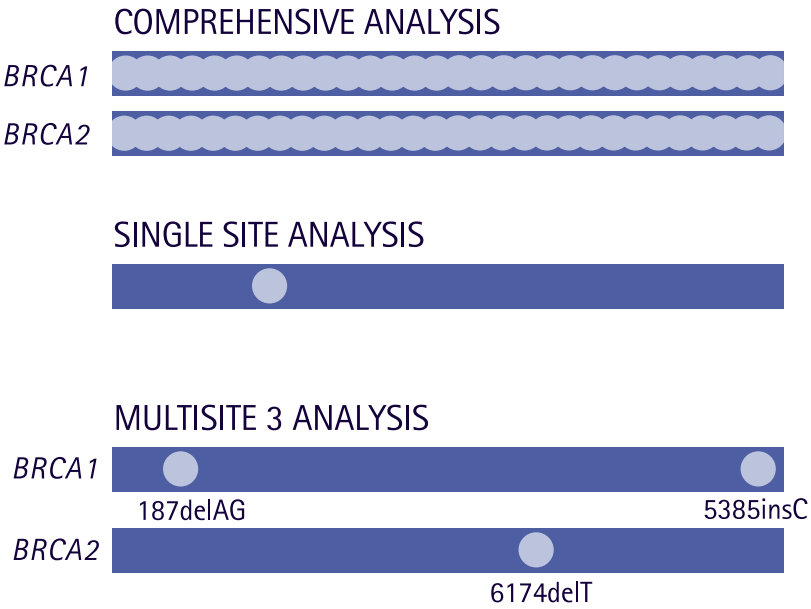
Positive for a Deleterious Mutation or Suspected Deleterious

BRAC*Analysis*®

This workbook is designed to help you understand the results of your genetic test and is best reviewed with your healthcare provider. Please verify that your test result matches the following information by looking at the patient copy of your test result or contacting the healthcare provider who ordered your test. If your test result does not match, please disregard this brochure, and contact your healthcare provider.

Your Genetic Test Result (check the appropriate boxes below)

THE GENETIC TEST YOU RECEIVED



- ❑ **Comprehensive BRAC*Analysis*®:** Full examination of the most common changes of *BRCA1* and *BRCA2* genes
- ❑ **Single Site BRAC*Analysis*:** Mutation-specific analysis for individuals with a previously identified *BRCA1* or *BRCA2* mutation in the family
- ❑ **Multisite 3 BRAC*Analysis*:** Analysis of the three most common *BRCA1* and *BRCA2* mutations in individuals of Ashkenazi Jewish ancestry

YOUR TEST RESULT

- ❑ Positive for a Deleterious Mutation
- ❑ Genetic Variant, Suspected Deleterious

Overview of Your Test Result

Mutations in *BRCA1* and *BRCA2* cause most cases of hereditary breast and ovarian cancer (HBOC), a syndrome that involves various cancers, primarily breast and ovarian.

- You have a mutation or alteration in either the *BRCA1* or *BRCA2* gene.
- You have HBOC syndrome.
- HBOC syndrome increases the risk of various cancers, primarily breast and ovarian.
- Not everyone with HBOC syndrome will develop cancer.

Your Cancer Risks

Having a *BRCA1* or *BRCA2* mutation increases the risk of certain cancers. If you have already had a cancer diagnosis, you have an increased risk for developing another cancer.

If you have NOT had breast or ovarian cancer	Mutation Carrier	General Population
Breast cancer by age 50	33-50%	2%
Breast cancer by age 70	56-87%	8%
Ovarian cancer by age 70	27-44%	less than 1%
Male breast cancer by age 80	7-8%	.05%

If you HAVE had breast cancer	Mutation Carrier	General Population
Ovarian cancer	15%	not available
Breast cancer after 5 years	27%	3.5%
Breast cancer by age 70	64%	11%

Other cancer risks*	Mutation Carrier	General Population
Prostate cancer by age 80	20%	15%
Pancreatic cancer by age 80	up to 7%	less than 1%

*Less information is available about the risks of these and other cancers than about breast and ovarian.

Notes/Questions

Managing Your Risks

Options for reducing cancer risk are available whether or not you have already had a cancer diagnosis. The following are medical management guidelines for *BRCA1* and *BRCA2* mutation positive individuals. Discuss these options with the appropriate medical professionals to determine how you will manage your cancer risks.

INCREASED SURVEILLANCE

- Monthly breast self-exams starting at the age of 18 and clinical breast exams two times a year beginning at age 25.
- Yearly screening with both mammography and MRI beginning at the age of 25.
- Pelvic exam twice a year beginning at age 35 in patients not electing surgery to reduce ovarian cancer risk.
- Transvaginal ultrasound (an imaging technique used to create a picture of the genital tract in women by using a hand-held device inserted directly into the vagina) and testing for CA-125 levels in the blood two times a year if surgery to reduce ovarian cancer risk is not done.

RISK REDUCING DRUG THERAPY

- Drugs such as tamoxifen have been shown to reduce the risk of breast cancer in high risk women.
- Birth control pills may reduce the risk of ovarian cancer in women with *BRCA1* or *BRCA2* gene mutations

PREVENTIVE SURGERY

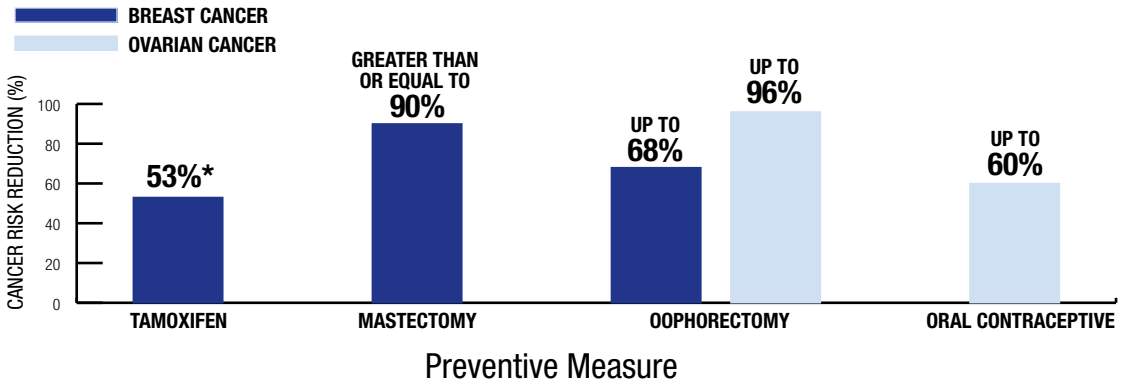
- Preventive mastectomy (removal of the breasts) significantly reduces the risk of breast cancer in women with *BRCA1* or *BRCA2* gene mutations.
- Preventive removal of the ovaries and fallopian tubes (Bilateral Salpingo Oophorectomy) significantly reduces the risk of ovarian cancer, and also breast cancer, in women with *BRCA1* or *BRCA2* gene mutations.

FOR MEN

- Monthly breast self-exams and clinical breast exams two times a year beginning at age 35.
- Consider baseline mammogram at age 40.
- Adhere to population screening guidelines for prostate cancer.

NOTE: Some families also have an increased incidence of pancreatic tumors and melanoma. Consider full body skin exam for melanoma and investigational protocols for pancreatic cancer.

PROACTIVE CANCER MANAGEMENT REDUCES THE RISKS



*IN CONTRALATERAL BREAST CANCERS

It's a Family Affair

BRCA1 and *BRCA2* mutations are passed on in a family. Now that a mutation has been identified in you:

- Your close blood relatives (parents, children, brothers, and sisters) have a 50% chance of having the same mutation.
- More distant relatives (cousins, uncles, and aunts) also have a chance of having the mutation that runs in your family.
- Generally, the mutation is only going to be found on the side of your family (father's or mother's) that has the history of breast and ovarian cancer.

Your relatives can be offered Single Site BRAC*Analysis*® to determine whether or not they have the same mutation.

- Relatives interested in genetic testing will need to know your specific mutation. It is best to provide your relatives with a copy of your test result which you can obtain from your healthcare provider.
- Single Site BRAC*Analysis* costs much less than a comprehensive test and may be covered by insurance.
- If your relative is:
  - **Positive** for the mutation, he/she has the increased cancer risks associated with *BRCA1* and *BRCA2* mutations and can benefit from appropriate medical management.
  - **Negative** for the mutation, he/she does not have the increased cancer risks associated with HBOC syndrome.

Your healthcare provider can assist in determining which of your relatives should consider genetic testing.

*If you had Multisite 3 testing, your relatives may need Multisite 3 testing instead of Single Site analysis, talk to your doctor about this possibility.

Myriad has resources available to help you with your genetic test result.

- **Contact Myriad's Medical Services Department at 800-469-7423 for:**
  - Answers to questions about your test result.
  - Information about genetic testing for your relatives.
- **Or, visit Myriad's website for:**
  - A sample letter that can be sent to relatives who may need genetic testing can be found at www.MyriadPro.com/BRACfamilyletters
  - A healthcare provider who can offer genetic testing to relatives in any state can be found at https://www.MySupport360.com/find-provider/

If you need a copy of your genetic test result, please contact the healthcare provider who ordered your test.

Notes/Questions

Next Steps

Please work with your healthcare provider to determine the most appropriate next steps for you.

- ❑ Obtain a copy of your test result
- ❑ Schedule consultations with appropriate healthcare providers (list below):

_____

_____

_____

- ❑ Create a plan for medical management

  Increased surveillance: _____

  Chemoprevention: _____

  Preventive surgery: _____

- ❑ Share your genetic test result with your relatives (identify your specific mutation so relatives can have Single Site testing)
- ❑ Re-contact your healthcare provider on a regular basis for new information about HBOC

Notes/Questions

Resources

Your healthcare provider is always your number one resource. You are also invited to visit **www.MySupport360.com**, the Myriad program offering information and support for patients. You will find valuable information that will help you better understand your test result, and you will join a community of people who are on the same hereditary cancer testing journey as you. You may also contact Myriad's Medical Services team at 800-469-7423.

MySupport360® is a community that:

- Helps guide patients and their family members through the genetic testing process
- Provides valuable information along the way and serves as an avenue to hear from others who are facing the same decisions
- Lists various advocacy organizations where patients can find additional information specific to cancers and genetic risks for cancer

Whether you are undertaking the hereditary cancer testing journey for yourself, a loved one, or a friend, MySupport360's mission—as an addition to your medical support team—is to put you in control, enabling you to own your healthcare.

MySupport360 will help keep you informed, proactive, and confidently prepared throughout the process.

Visit www.MySupport360.com to learn more.

MySupport360.com

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THIS INFORMATION IS PROVIDED TO HELP ANSWER SOME OF YOUR QUESTIONS WITH RESPECT TO CANCER RISKS, HEREDITARY CANCER RISKS, AND PREDISPOSITIONAL CANCER TESTING. IT IS GENERAL IN NATURE AND IS NOT INTENDED TO PROVIDE A DEFINITIVE ANALYSIS OF YOUR SPECIFIC RISK FACTORS FOR CANCER OR YOUR HEREDITARY CANCER RISKS. YOU SHOULD NOT RELY ON THE INFORMATION PROVIDED HEREIN; BUT RATHER, YOU SHOULD CONSULT WITH YOUR DOCTOR OR A QUALIFIED HEALTHCARE PROFESSIONAL TO REVIEW THIS INFORMATION ALONG WITH YOUR INDIVIDUAL HEALTH CONDITIONS AND RISK FACTORS.

BR1 /05-14

BR1Positive