In subjects we have, but I think routinely were used to giving talks to other doctors and not talks to our patients. An I think this really gives us the opportunity to think about what is meaningful for all of you as breast cancer survivors as family members of breast cancer survivors and patients just undergoing treatment. Uhm so or who have undergone treatment. Sorry I'm rambling, I first talked today.

Is by Doctor Erin hofstetter. Um Aaron is an associate professor of Medison Ann Co director of the smilow cancer genetics and Prevention program, which she has really built from the ground up and we're incredibly proud to have her here.

So this is where I need some help from this people OK there comes IT to the rescue.

Sorry I wasn’t sure that this cable good to know. I'm one of the breast medical oncologist here and also wear a hat of Co director of the cancer genetics and Prevention program within that program. I have a breast cancer prevention clinic where I see women at increased risk of breast cancer, so with that had on the topic. We speaking about tonight is caring for women at increased risk.

So as you'll hear from probably many of our talks breast cancer is just exceedingly common. In fact, one in 8 women in the United States will be diagnosed with breast cancer at some point during her lifetime and if you include DCIS, which is a pre invasive really early type of breast cancer that number increases to one in 6, so many, many of us are touched by breast cancer, either ourselves or with our family. There's over 3 million survivors in the US. Today, of breast cancer an in terms of statistics about 250,000 or more women will be diagnosed.
Each year with breast cancer, about 40,000 women will pass away from breast cancer. It is the second leading cause of cancer-related death in women. Men are not immune. There’s 250,000 new diagnoses in women, but there’s about 2500 diagnoses of male breast cancer each year.

So my hope tonight, with patients in mind, is really to address 3 practical questions. Many of you, perhaps family members. Perhaps of breast cancer patients may stay my it increased risk of breast cancer. Should I get genetic testing and what can all of us in the room due to lower our risk? What can we do, what can we eat? What can we do to prevent or lower our risk so jumping right in with risk factors. You may or may not be surprised to know that outside of having something like a beer cementation is aging.

Age is the number one risk factor for breast cancer just getting older increases your risk so there’s not a whole lot that we can do about that, but prime time for breast cancer for the average patient is between the ages of 50 and 70 with the most common age of diagnosis being about the age of 62.

There are other major do not miss risk factors for breast cancer, so aging obviously being female, but obviously genetic factors such as having a beer see one or 2 mutation or other strong genetic mutation and I’ll speak in a few slides about what that might mean having a family history even in the absence of having a genetic mutation having a close family member, particularly at a young age of having breast cancer, one or more 1st or 2nd degree relatives on the same side of the family having her family history is a risk factor, having had breast cancer once.

Does put you at a slightly increased risk for getting breast cancer again? So again a major risk factor having had a breast biopsy that shows a typical cells like LCIS or ADH. Some of these terms that if you undergone a breast biopsy. If you have breast atypia that puts you at an increased risk category, having high breast density and mammogram. It’s a very hot topic, particularly in Connecticut, where breast density was born if you will as a movement but particularly having it out of proportion of your age or having extremely dense tissue can be a risk factor.

And having chest radiation, I mean, not just mammograms or chest, X Rays. I mean, therapeutic radiation for something like Hodgkin’s disease. As a teenager or a woman in your early 20s can increase
the risk, you’ll notice that none of these are modifiable. You really don’t have control over any of these risk factors. And yet these are the ones that matter. Most so there are things you can do about your risk. But other things that just come with aging.

NOTE Confidence: 0.921173751354218

00:04:49.370 --> 00:05:15.890 Other breast cancer risk factors again, having early periods late menopause, having late age of childbirth. If you say that 30 is late. That’s painful to me, but late childbirth, combined hormone replacement therapy prolonged use of birth control pills and lifestyle being overweight or obese, particularly in menopause. Alcohol intake lack of exercise again. These are weaker risk factors, but can add up overtime to increase your risk.

NOTE Confidence: 0.903995096683502

00:05:16.530 --> 00:05:45.700 So to just illustrate that not all risk factors are the same, so obviously having a beer CA. Two one or 2 mutation increases your risk 10 times or more of getting breast cancer, having had previous chest wall radiation. Like I said, is is a risk factor. A strong risk factor, but hormone replacement therapy. Many people are surprised to know sure if we say one is average taking hormone replacement. Therapy is 1.3. Sure, it adds up risk. But it’s not like having a beer see imitation so not all risk factors weigh the same.

NOTE Confidence: 0.923176229000092

00:05:47.070 --> 00:06:19.810 And at the end of the day even though we’re really good at looking at the population, saying here is a list of risk factors for breast cancer. The truth of the matter is most of the women. I see over my prevention clinic who have risk factors. Most of them don’t get breast cancer and Conversely. Many of us medical oncologists in the room and many patients sit there saying I did everything right IA right, I exercise. They didn’t drink a lot of alcohol. Why am I sitting here with breast cancer. Most of the time. Those people who did everything right get breast cancer anyway. And so we really don’t have a good model or a good tool at this point to say OK, you are going to get breast cancer.

NOTE Confidence: 0.921582937240601

00:06:19.810 --> 00:06:42.460 You are not in this is when you are going to get it. It really despite being able to identify risk factors. We really we really don’t know at the end of the day. Anybody sitting with a breast cancer diagnosis. It’s a little bit about what genetics you were born with a little bit about what lifestyle a little bit about the environment and probably a big element of random chance. So, Unfortunately, we don’t have the answer for most of our patients.

NOTE Confidence: 0.916429579257965

00:06:43.040 --> 00:07:13.750 So again when you look at all of women with breast cancer about 75% of the time we have to shrug our shoulders and say gosh. I just don’t know why you got breast cancer. Another 15 to 20%. We
do see breast cancer, clustering in families. But we can’t find a gene. It just
doesn’t look strongly hereditary only about 5 to 10% of the time do we feel like
that breast cancer really is hereditary. There’s some gene being passed along
in a family gene or jeans. If you will that explains that breast cancer, so again
the take home point here is most breast cancer is not.

NOTE Confidence: 0.522821545600891

00:07:13.750 --> 00:07:14.910 Hereditary.

NOTE Confidence: 0.914218127727509

00:07:15.690 --> 00:07:49.580 So if you have breast cancer in your family, per-
haps yourself a relative you know clusters of breast cancer in your family again.
Most of the time we don’t find a gene in fact, a lot of times when you see, things
clustering and families. It’s about shared risk factors among that family because
families share health habits. They’ve shared dinner, they share you know ex-
ercise habits. Things like that, so if you see cancer clustering your family. It
may not be about a gene it may be about smoking alcohol. Other exposures
over time, but that said it is important to know your family history because we
don’t want to miss that low hanging fruit.

NOTE Confidence: 0.925670345401764

00:07:49.580 --> 00:08:19.660 If there is a mutation in your family, we do want
to find it because there’s a lot of prevention measures that can be done so.
Thanksgiving is coming. It’s time to sit and eat some Turkey and talk about
your family history. So talk about both sides of the family who has cancer in
your family at what age did. They get cancer? What type of cancer? Was it did
they have other health habits. Perhaps they were heavy smoker. For example,
you know really flesh out that family tree and make sure you ask about both
sides of the family I care about mom side.

NOTE Confidence: 0.897220611572266

00:08:20.140 --> 00:08:46.330 About dad side because as I mentioned in a couple
slides. These Burke mutations or other genetic mutations can be inherited from
mom or dad, they can be passed on by men or women and it’s not all about
breast cancer or other types of cancer that matter as well so gather that family
history from both sides and updated often even if you talk to mom 5 years ago
about the family history updated ‘cause. We’re all getting older and so more
cancers can pop up overtime.

NOTE Confidence: 0.923895299434662

00:08:46.960 --> 00:09:13.990 So what should you be listening for so these are
the list of red flags that you should be aware of in your family. So if you hear
any of this over dinner. This is what I want you to make note of 0. If you
have many cases of the same type of cancer on the same side of the family so
for example, if on mom side you’re hearing about 2 or 3 breast cancers and say
your aunt and your grandmother or your sister and your mother for example, multiple cases on the same side of the family is a red flag.

NOTE Confidence: 0.883763432502747

00:09:14.490 --> 00:09:18.800 A young age of cancer on set, so Young is defined as less than 50.

NOTE Confidence: 0.901340365409851

00:09:19.380 --> 00:09:50.150 It almost doesn’t matter the cancer type, but certainly there’s breast breast cancer in your family at 50 or younger. I think it’s a flag enough to talk with your doctor about referral having multiple cancers within the same person. So a person who have bilateral breast cancer for example, or breast and ovarian cancer again in the same person. Having multiple cancers in one person is a red flag certain cancer types within a family again. The most classic for beer says listed here. Certainly breast and ovarian goes together, but we’re starting to pay way more attention now to pancreatic cancer.

NOTE Confidence: 0.914956271648407

00:09:50.150 --> 00:10:20.520 Prostate cancer so it’s important to flush out all cancer types within your family male breast cancer is a red flag. Ovarian cancer at any age is a red flag having cancer in your family and being of Ashkenazi Jewish descent is a red flag because we find VRC mutations more commonly in this population and then Lastly triple negative breast cancer or that type of breast cancer that’s estrogen progesterone and her two negative triple negative under the age of 60. We know that type of breast cancer tracks more commonly with BRC A1.

NOTE Confidence: 0.907517194747925

00:10:20.540 --> 00:10:27.380 It was a red flag enough for genetic testing so this isn’t a comprehensive list. But certainly things that you should be listening for.

NOTE Confidence: 0.901857912540436

00:10:28.350 --> 00:11:00.340 So let’s say that one of these features applies to your family and you’re like OK. I want genetic testing? What does that involve well it’s now brave new world technology advances quickly and so in the last 5 years we’ve really moved from just testing just for beer. C1 and 2:00 to really doing what we call cancer panels or you can get a number of jeans done all at once. It’s quick. It’s more cost effective to do it. That way and you can do just a couple of jeans or you can do up to 100 jeans at once or more so we really are doing more cancer panels.

NOTE Confidence: 0.911770701408386

00:11:00.340 --> 00:11:32.370 It’s not perfect and it’s not black or white. It’s not positive or negative. Sometimes you can get what we call Gray results or these variants of uncertain significance that we don’t think are clinically meaningful but we can’t promise and so that’s why it’s uncertain an the other thing is
that we don’t have clinical guidelines for all hundred jeans on the panel so for example, if you go and get a test and you bring it back to me in my clinic and you. Tell me I have a mutation in Exarch 2. I’m going to look at you and be like, I don’t know what to do with that there aren’t any guidelines for that, so the technology is way ahead of what we know to do within clinic.

NOTE Confidence: 0.92784321308136

00:11:32.370 --> 00:12:02.750 For some of these jeans, but with those caveats. It’s still a good idea to go for counseling and testing if you have some of those features in your family. It’s just a blood test your insurance should cover it, particularly if you’re a breast cancer survivor. It’s typically common. I think that will get better with time, but the good news is if you don’t meet whatever criteria for your insurance. It is very relatively low-cost now. You can get a pretty decent panel of 30 or 40 jeans for about $250 out of pocket, which is much better than what used to be.

NOTE Confidence: 0.910287320613861

00:12:02.750 --> 00:12:09.210 $5000 or more just a few years ago, so again if you really want genetic testing the cost is come way down.

NOTE Confidence: 0.92551052570343

00:12:09.860 --> 00:12:42.510 So a lot of people are worried about discrimination and privacy and things like that. I don’t want that to be a barrier to getting tested if you’ve got red flags in your family. There is federal legislation out there to protect you against health insurance discrimination employment discrimination. I will mention that there is no protection right now for life insurance so if you are. Perhaps healthy person with a family history. You want to get tested. We generally recommend getting life insurance in place first so that it can’t be denied. I’ve had a couple denials in that case so get life insurance before you want to test.

NOTE Confidence: 0.906523048877716

00:12:42.510 --> 00:13:00.660 So if you’re even remotely thinking about it. Please call us. This is my shameless plug for our program. Please call us at 200 to 4362 or 4 DNA will be happy to walk you through your family history. Do you need a test? What test to send all the insurance stuff is in doubt talk with your provider or give us a call.

NOTE Confidence: 0.899802267551422

00:13:01.860 --> 00:13:34.500 So let’s say you go ahead and like OK. I’m going to get the test. What are we looking for there’s actually a lot of jeans that we’re looking at now that are associated with breast cancer risk. There’s some high level high risk jeans. There’s some medium penetrance or medium risk jeans. There’s some low risk jeans. But the do not miss the ones that we really should know whether you have it or not or the BRC A1 and BRC A2. So I wanted to
focus a little bit on those jeans, so if you think back to that pie graph. I showed you with that little green slice that said 5 to 10% of breast cancer.

NOTE Confidence: 0.905857264995575

00:13:34.980 --> 00:14:01.910 About half of that piece of pie is specifically BRCA one and 2, so of all breast cancers walking around about 5% or related to BRC A1 or 2 mutations. So we’ve known about these jeans since the mid 90s and they do cause us a significantly increased risk of breast cancer, so if you are born with the BRC A1 or 2 mutation by the time you reach age 70. There’s a 50 to upwards of 85% chance that you may be diagnosed with breast cancer.

NOTE Confidence: 0.92842048406601

00:14:02.760 --> 00:14:27.640 The risk of ovarian cancer by the age of 70 your risk of ovarian cancer might reach 25 to 40, maybe even 50%, so significantly increase compared to the population and as I mentioned before there’s other cancers that we know about prostate cancer pancreatic cancer. Male breast cancer and Melanoma. We’re understanding more and more that beer C1 and 2 carries risks of these as well, particularly BR C2.

NOTE Confidence: 0.928135871887207

00:14:28.750 --> 00:14:37.460 So as I mentioned the reason it’s important to ask about both sides as I mentioned these jeans can be passed on an inherited by men or women?

NOTE Confidence: 0.894962906837463

00:14:39.040 --> 00:15:11.750 How how common are they they’re not all that common if we were to test anybody walking around we’d find it in one in every 190 or one every 200 people. However, if you look among Ashkenazi Jews, we find a beer. See one or 2 Mutation in one out of every 40 people so that’s why it’s particularly important if you’re if you’re if Ashkenazy dissent to know your cancer family history and go for testing. One word about the 23andMe. I know that I’m starting to see the commercials on TV. ’cause the Holidays are coming there like get 23andMe for your family and that’s fine recreational genetics is I’m not saying Don’t do it just it’s not a substitute for.

NOTE Confidence: 0.899971187114716

00:15:11.750 --> 00:15:42.480 Your provider in Virginia counseling so for example, they do test for BRC one and 2 but it’s only testing for the 3 Ashkenazi mutations and there’s like hundreds and hundreds and hundreds of different mutations out there, so just be aware that know what you’re buying if you decide to do that test and my last. Pearl is if you yourself. Perhaps your breast cancer survivor and you said. Oh, I got that genetic testing. I got that 10 years ago. I’m good. There’s been a lot of updates specifically in beer. C-12 testing so if you’ve been tested prior 2013. I recommend you come back for an update.

NOTE Confidence: 0.8975630402565
00:15:43.180 --> 00:16:04.220 So what can we do to reduce your risk to prevent whether you have a mutation or not so there’s screening and there’s prevention, so screening is not the same just getting a mammogram isn’t going to prevent that cancer from happening. The idea was screenings that you detected early so that we can minimize treatment, hopefully translate into better outcomes.

NOTE Confidence: 0.912342607975006

00:16:04.830 --> 00:16:35.300 I could give an hour long talk on mammograms. There’s like 15 different sets of guidelines about who should get it and at what age and how often but Suffice, it to say mammogram is a cornerstone of screening and I reckon I personally recommend it starting at age 40 and continuing every year so long as you’re healthy, but that’s fraught with debate and I won’t even go there, but it starts with mammogram if you have dense tissue on your mammogram your doctor should be talking to you about whether or not. You want to get an ultrasound to help improve that quality of screening MRI is generally reserved for those women.

NOTE Confidence: 0.904880821704865

00:16:35.300 --> 00:17:04.460 Either with a genetic mutation or with a particularly strong family history, so MRI. We use for those women to increase risk. But it’s not generally used in the population so that screening? What about prevention. This is about lowering your risk an on one extreme. We’re talking about preventive removal like surgical removal of the breast on the other extreme. We’re talking about lifestyle stuff stuff that all of us can do every day and then there’s also medications kind of a medium aggressiveness. If you will about prevention so I wanted to touch on all of that.

NOTE Confidence: 0.911807477474213

00:17:05.310 --> 00:17:37.300 So about surgery all of us probably remember a few years ago, Angelina Jolie wrote in the New York Times about her beer say one mutation and she opted to have surgical removal of her breasts, which was appropriate for her. It does reduce your risk a lot. It reduces your risk by 90% or more even in a beer see a carrier. So it is the most effective way to prevent breast cancer, but again, it’s not for everyone. We generally recommend this for beer say carriers. Those people with very strong strong family histories or other strong genetic mutations.

NOTE Confidence: 0.884453117847443

00:17:37.300 --> 00:18:08.040 Even in my B, RCA carriers, though it’s not mandated. It’s not that if you get that test result back you have to get a mastectomy. It’s the timing of it is negotiable by patient and I do have patients in my in my practice who choose never to get never get mastectomy. It’s not 1 size fits all the other thing I will mention about prophylactic surgery and I’m guessing doctor, Abraham will talk about this is just ‘cause you’ve had breast cancer
does not mean you have to have a mastectomy. I think a lot of patients feel pressure to get mastectomies and you don’t have to it is an option.

NOTE Confidence: 0.881394147872925

So the pros, obviously have mastectomies you lower your risk, you have screening anymore. But there are cons. It is a big surgery a doctor. Abrahams probably going to show you some beautiful beautiful outcomes, but it isn’t the same as getting Greg Breast Augmentation. It is a big surgery. There’s some in body image stuff for some women some breast sensation loss so again. It’s not a one size fits all.

NOTE Confidence: 0.907315492630005

What about removal of the ovaries this is indicated for a beer see a carrier we do strongly recommend removal of the ovaries for a beer say carrier because we’re not that good at screening for ovarian cancer. It does reduce the ovarian cancer risk substantially an might actually also reduce the risk of breast cancer for those of you in the room who are not BRC carriers have had a breast cancer diagnosis. I often will get asked well. I’ve had breast cancer. That means I need to get my ovaries out right that is not the case so talk with your doctor about whether or not, it’s right for you.

NOTE Confidence: 0.885208249092102

Or if you have a question get genetic testing.

NOTE Confidence: 0.89549857378006

So we’re not medications. Some of you in the room might look at this and be like, we to 2nd Tamoxifen Aromasin Arimidex. Those are medications. I’m on to treat my breast cancer. Well, it turns out, we can use these same medications in healthy women have increased risk to prevent cancer. In fact, it looks like it lowers risk by half, so if you take for example, tamoxifen every day for 5 years in a woman who might be at increased risk her family history or because of Rusty Tapia. It looks like it cuts your risk in that those effects are long lasting in fact, specifically for tamoxifen. There was a study recently published.

NOTE Confidence: 0.918266236782074

Where they look at those women who took it for 5 years stopped it and looked at what happened to them 15 years later and their risk was still cut in half, so there can be some long lasting effects. This is clearly not for everybody. There’s definitely pros and cons. So obviously the Pro is that it can lower your risk. But as many of you on these medications out there in the audience know there can be hot flashes and night sweats and leg cramps and vaginal dryness and there’s a small small risks of uterine cancer blood clots. It’s not a free lunch, so that’s why if you think you might be at increased risk.
If you think you might qualify, it’s important to talk with your doctor about where does your risk of breast cancer fall in relation to the pros and cons of these meds, but they are out there and then Lastly lifestyle. This applies to everybody, including myself about what you can do every day to lower your risk so limit your alcohol to one serving a day or less. If you smoke, please quit or if you don’t smoke don’t start.

Limit hormone replacement therapy again this, I do feel like the risks in general are overblown, whereas if it’s right for you. If you need hormone replacement therapy for some reason, it’s OK limit it, but it should be shared decision making about pros and cons.

And then Lastly eat right and exercise. We know that obesity and post menopause being overweight post menopausal. We can increase the risk a little bit. So we just need to move you know what we’re looking for is just walking 150 minutes, a week of moderate intensity. Exercise translates to about 30 minutes, a day, which translates to about 7:00 or 8000 steps a day. We all sit were sitting here we sit on our phones. We sit in our computers. So I really encourage you to get a pedometer or look at your phone to see how many steps today, you’re getting and get squeeze that extra walk in.

Push your fruits and vegetables, 5 servings a day and then obviously watch your portion sizes.

I want to end by saying what does not increase breast cancer risk there’s a lot of things that I feel like people come to me really worried about an I just say don’t lose the forest for the trees what he wants to do is eat right and exercise. But I don’t worry bout deodorant. I don’t worry about hair dye or any number of things. I don’t worry bout soy so again. I feel like a lot of people worry about things is plenty of life to worry bout don’t worry bout this stuff eat right exercise don’t sweat the small stuff.

So, in conclusion, a lot of breast cancer risk. We have no control over most risk factors are not modifiable. But the point is to
modify the things that we can if you have a genetic mutation in your family. Let's find it.