

## Endometriosis - The How & Why and Recent Advances in Treatment with Dr Camran Nezhat

Endometriosis is a disease where the cells of internal lining of the uterus (endometrium) starts to grow outside the uterus, mainly on organs in the pelvis, causing a maze of symptoms including not only pelvic pain, infertility, and severe menstrual cramps but many more. It affects more than 170 million women worldwide, and it affects every woman differently. Unfortunately, many women remain undiagnosed, or, are diagnosed late due to lack of understanding of the symptoms of the disease. Despite this, there is lack of research funding into the diagnosis, the cause, and effective treatments of Endometriosis, making women's options limited.

March is Endometriosis Awareness Month and the <u>5th Worldwide Endometriosis March</u> will take place on 24th March 2018, in 60+ countries this year, to gain attention of health policy makers and congressional representatives. In honor, we are talking to eminent endometriosis specialists, and <u>the founders of</u> <u>Worldwide Endometriosis March and Endometriosis Day</u>, Dr. Camran Nezhat and Dr. Azadeh Nezhat, all about Endometriosis and the latest advances in its diagnosis, treatment, and management.

Dr. Camran Nezhat has been called the father of modern-day surgery for pioneering the field of videoassisted endoscopy and is considered as one of the best endometriosis specialists in the world.

## Full Transcript:

**Shweta Mishra:** Good evening and welcome to CureTalks, I am Shweta Mishra your host joining you from India and today we are talking all about Endometriosis with our eminent guests and the founders of World Wide Endometriosis March and Endometriosis Day, Dr Camran Nezhat and Dr Azadeh Nezhat.

Endometriosis is a disease where the cells of internal lining of the uterus starts to grow outside the uterus, causing a maze of symptoms including not only pelvic pain, infertility, and severe menstrual cramps but many more. It affects more than 200 million women worldwide, and it affects every woman differently. Unfortunately, many women remain undiagnosed, or, are diagnosed late due to lack of understanding of the symptoms. Despite this, there is lack of research funding into the diagnosis, the cause, and effective treatments of Endometriosis. March is Endometriosis Awareness Month and the <u>5th Worldwide</u> <u>Endometriosis March</u> just took place on 24th March 2018, in 60+ countries this year, to gain the attention of health policy makers towards this issue. Today Dr. Camran Nezhat and Dr. Azadeh Nezhat, will tell us all about the focus of the Endo March and educate us about the latest advances in endometriosis diagnosis, and treatment.

Dr. Camran Nezhat has been called the father of modern-day surgery for pioneering the field of videoassisted endoscopy. He has been the first to perform many of the most advanced laparoscopic surgical procedures. He is considered as one of the best endometriosis specialists in California. An author of several books and publications and recipient of numerous awards, he has been involved in research, teaching, innovating and philanthropic activities throughout life. Dr Azadeh Nezhat is the co-director of the Center for Special minimally invasive and robotic surgery and performs surgery at the Stanford University Medical Center. Her special interests are myoma of the uterus and effects of endometriosis on young girls. I welcome you to CureTalks, Dr Camran Nezhat and Dr Azadeh Nezhat.





My co-host for today's show is Joanie Cox-Henry. Joanie is a journalist and an endo-warrior battling endometriosis for more than a decade now and has lost an ovary to the disease. She writes for the Endometriosis Foundation of America's blog, The Blossom and educates others on disease. On the panel, we also have Claire Watson who is joining us from Scotland where she attended the Endo March on 24th there.

Claire is an endometriosis survivor and is passionate about spreading awareness. Claire started the Endometriosis Fight Support group as a way to help other women and has won volunteer of the year award twice last year for her work on endometriosis and this year she's been asked to go to the Queen's Garden Party because of her work on endometriosis. Claire was diagnosed with endometriosis at the age of 31 after being misdiagnosed for almost 16 years only to undergo full hysterectomy at the age of 33.

We also had Samantha Aviaz on the panel, but she's unable to join the call due to some clash in her schedule, but she has sent in her questions for the experts, which I'll be asking on her behalf. I extend a warm welcome to all my listeners and I would like to remind our listeners that we will be discussing questions via email at the end of the talk, so send in your questions to shweta@trialx.com, and if you want to ask a question live, please press one on your keypad and we'll bring you on air to ask them. You can also post your questions on Curetalks.com. With this, I will begin with you Dr. Camran Nezhat, the Worldwide Endometriosis March just happened on the 24th of this month in 60+ countries. That is a huge support you have from the endometriosis community. For the benefit of our audience, could you please elaborate what is the focus of the Worldwide Endometriosis March and why do you think you a movement is required for this disease?

**Dr Camran Nezhat**: Thank you very much. As I was mentioning before, I wanted to thank you, the organizers, all the participants in this talk and also people, all the listeners on this program around the world for their kind interest and attention to the matter of endometriosis. The reason that we founded and we started the Endometriosis March, which has been a significant achievement in raising awareness for Endometriosis around the world. These are from myself, my brothers Dr Farr Nezhat, Dr Ceana Nezhat and my niece Dr Azadeh Nezhat. Combined together, we had been taking care of and treating young girls and women with endometriosis. All of us if you combine it together, for more than 100 years. And like any other family when we get together for different holidays or vacations, because we are all physicians and we take care of young girls and women with endometriosis, invariably we talk about endometriosis, but all of our talks in what is that over all of these years, we still see patients coming to us and they had been delayed in diagnosis, average of six to eight years. Despite where we practice, we practice in some of the most advanced cities in the world. We practice in a very urban area, very highly educated physicians all around the world and we still see patients come to us, and their diagnosis has been delayed many years or they had to go from this doctor to that doctor, and they said, well, all your tests are normal.

All of your imaging, ultrasound, MRI, everything is normal, so probably this is not anything significant problem, it is in your head and perhaps you are depressed or it doesn't exist. And this was happening over and over, they say well, you have pelvic inflammatory disease and these are people that they even haven't had any kind of intimacy to get pelvic inflammatory disease. So this was upsetting to us to see why does it take, why even medical professionals sometimes it is not in their radar, to diagnose endometriosis. So when we were talking together, and we finally decided that perhaps instead of writing about it more and more as we have been, because again, between all four of us together, we had been probably one of the most published area of endometriosis with several hundreds articles about it and many books and book chapters about it. When we want to to do real something, we should empower young girls and women themselves. The same ways that significant marches for civil rights movement as you can see for other significant movements like. Susan B Komen Foundation for Endometriosis, for Breast Cancer all of these movements. People decided to take the matter in their own hands, we decided to empower young girls and women and their families with endometriosis. And I've been talking about this for many years, almost 10 years.

I mean five years ago, we started WorldWide Endometriosis March on Worldwide endometriosis Day and as you can see, it was bush fires. Suddenly the, old organizations, more that 63 countries around the world





have joined this movement, launches around the world are happening. The goal of this march was to raise awareness, number 1 to raise awareness around the world about endometriosis and we are achieving this goal more and more. Another goal of this march was to trying and encourage all the universities, all establishments, all the companies to come up with a non invasive diagnostic test for Endometriosis, because at the present time, the only way to diagnose endometriosis is by doing a laparoscopy. So we wanted to find a non-invasive diagnostic test and also the other missions are hopefully to find a cure and find or ultimately a method to prevent it. Incidentally, I would be the person answering all of your questions as Azadeh Nezhat had to apologise, had to go and attend to another patient. So this is the summary why we started the worldwide endometriosis march.

**Shweta Mishra**: OK. Thank you so much for your answer Dr. Camran Nezhat. With this I will just hand over to Joanie, our co-host for today's talk and she will take the discussion further with you. Joanie, you are on air.

**Joanie Cox-Henry:** Hi, this question is for Dr. Camran Nezhat. What is the best treatment for managing monthly endometriosis pain if a woman wishes to preserve her fertility?

Dr Camran Nezhat: Well, any patient who wants to manage endometriosis, depends what they are, in the case that they want to manage and they want to get pregnant, we have to address it in two ways. If they are actually trying to get pregnant right now, there's one group of patients or the other group those who are younger patients, there are patients that want to preserve their fertility and they have pain. If the patient has pain and she wants to get pregnant right at this present time, obviously she has to be evaluated very thoroughly and encourage her and manage her for infertility, to see the time of her ovulation, help her to see you get pregnant if your fallopian tubes are normal, if her husband's sperm count is normal, it depends on how old they are, the times they have relation, we encourage them intercourse at the right time, at the time of ovulation. Or also perhaps some cases we might have to do intrauterine insemination, if the Fallopian tubes are normal. If the fallopian tubes are not normal by hysterosalpingogram, then she might go for further evaluation and she might require surgery to treat that endometriosis. If she is very, very young, that means the patients that are under the ages of 37 and if the husband's sperm count is good. If they have pain, the best treatment is to treat them by an expert surgeon to treat the endometriosis very thoroughly, remove it as much as possible and then try to get pregnant on their own, If they have a lot of pain and are more than 37 years of age and also there are some problems with their sperm and they have not responded to other treatments, still they can be treated very thoroughly by an expert endometriosis specialist and then at that time proceed with IVF or other Assisted Reproductive Technology treatment. If the woman is very young, she wants to consider her reproductive system, we try to manage as much as possible without any surgery, with other methods of treatment, if she doesn't respond to other methods like birth control pills or others, she should be evaluated by expert endometriosis, by laparoscopy and treated very thoroughly for her endometriosis. And for that pain very different options are there.

Joanie Cox-Henry: Excellent, and why does adenomyosis go hand in hand typically with endometriosis?

**Dr Camran Nezhat:** That is a very nice question. Lot of times, a lot of the patients they have endometriosis, a significant portion of them they have endometriosis of the uterus and that is called Adenomyosis. And those adenomyosis patients have to be treated also for their pain, for their bleeding and also again, it depends if they want to get pregnant and if they don't want to get pregnant. People who do not want to get pregnant, if their treatment for pregnancy, well the best treatment for endometriosis is, at difference in time, having no period. We have to be very cautious and careful how to manage these patients, there is not one size fits all. It has to be every treatment, every patient, the treatment has to be tailored for that patient and there is not only one birth control pill or one progesterone or one IUD or one GNRH analogue or antagonist that has to be used for these patients. The treatment should be tailored for that patient, the patient with endometriosis should see an endometriosis specialist who knows how to manage these patients, especially when there is adenomyosis involved for this patient. That is the answer.

Joanie Cox-Henry: Excellent. Thank you.





Shweta Mishra: Claire Watson, are you online? Go ahead and ask your questions to Dr. Camran.

**Claire Watson:** Hi, I'm calling in from the UK and what I am wondering is why is there such a long delay in diagnosing, why does it take a seven, eight or 10 years to diagnose the disease?

**Dr Camran Nezhat:** I was thanking Claire and Joanie for their questions on my behalf and also on the behalf of Dr Azadeh Nezhat who had to attend another matter. So the reason for delay Claire, is because there is not enough awareness even in the medical communities. Unfortunately young girls and women around the world have been suffering for thousands of years because of lack of understanding about endometriosis, because then what the mind doesn't know, I just don't see. The majority of medical professionals, they are looking for imaging studies, they are relying on an ultrasound or an MRI to show them endometriosis. And none of them are accurate for endometriosis. And it is not on their radar because the only way to diagnose endometriosis at the present time is by laparoscopy and you cannot expose everybody to laparoscopy, but at the same time, sometimes the patient is not even offered laparoscopy because it is not on the radar of the physician that the patient goes to.

A lot of these young girls and women, they still go to the pediatrician and for a lot of the pediatricians, endometriosis is not in their differential diagnoses. A lot of internees, endometriosis is not in their differential diagnoses. And at the same time when it goes through a lot of gynecologists when they might think of endometriosis, they are not very well versed about it. I have been, and also many of my colleagues, I have been also my brothers and my niece, we have been practicing, as I mentioned, for more than a hundred years together and beyond. We have trained and we are training some of the physicians, some of the gynecologists coming to us from some of the best centers around the world. When they come to us, the first five or six months when we show them what is endometriosis, they don't, when we remove the disease, we send it to the pathologist and you prove it to them because endometriosis at the very beginning, it's just mind boggling for them that after many years of medical school and many years of training in obstetrics and gynecology, they know what Endometriosis looks like, that means a lot of the teaching centers, some of the best programs in the world, the teachers don't know what endometriosis looks like anyway. So what mind doesn't know, the eyes don't see. That is the answer to your very good question – why does it take a six, seven, eight, 10 years to diagnose the disease is because the physicians don't know what to look for. That is the answer to your question.

**Claire Watson:** OK, thank you. This also leads me on to another question that in the future is it possible that individuals can be diagnosed through blood tests and how far is it likely to happen?

**Dr Camran Nezhat:** Oh, there is none at the present time any blood tests or any different tests that right now, we can say diagnose endometriosis without laparoscopy. There are some tests which are suggestive, like some new endometrial biopsy test that it does show that the patient has some inflammation and that inflammation, one of them could be because of endometriosis. So I know for endometriosis there is no definite test or blood test at the present time. Also, I know you had the question here – why is it dangerous to electrosurgical instruments, how can we carefully use instruments to precisely excise the treatment. What is better – radio frequency/ electro surgery/ laser/plasma energy? The answer to that question is not the instrument – electrocautery/plasma energy/ lasers, what is a robot, what is the best? the answer to that question is none of them are the best.

The best is the right surgeon, a surgeon who has experience, can do the surgery with toothpicks and the best and the most expensive instruments in the hands of an inexperienced surgeon could be dangerous. So that in general, laser damages the tissue, much much less than electro energy or electrocautery because physics, the penetration of the laser is 150 micron, the penetration of the electrocautery and electrosurgical instrument is 7,500 microns. So you know the difference between 150 microns and 7,500 microns from electro surgery is a lot more damage. So electoral energy, electro surgical instrument, electricity would be much, much more damaging than the laser. Laser is only 150 microns. So a very experienced surgeon, can do a very, very precise excision of the endometriosis with laser rather than electrocautery that could be more damaging. One other question is can you avoid, you had the question here Claire can we avoid laparotomy,a





long and precision open surgery even before severe stage for a multi-organ endometriosis. That was another question of yours Claire, is that correct?

Claire Watson: Yeah that's correct.

**Dr Camran Nezhat:** Right. That question that you ask Claire and you have sent it to me in advance before, and I thank you for that. Absolutely, of course. Multi-organ stage-IV endometriosis could be managed properly by minimally invasive surgery by video assisted laparoscopic surgery or through arthroscopic surgery. Definitely because the limiting factor is a skill and experience of the surgeon and the availability of proper instrumentation. We reported multi-organ laparoscopic treatment on a stage four endometriosis to be a disease as early as 1985 and we have reported it and published it as early as 1986, 87, 88 for endometriosis of the bowel. So all of this could be managed by laparoscope. As I mentioned, again, the limiting factor is the skill and experience of the surgeon and the availability of proper instrumentation.

Claire Watson: Thank you very much.

Shweta Mishra: Joanie, do you have other questions for the talk?

Joanie Cox-Henry: Yes, I did. I had another question, for women who have already had children with endometriosis and are not interested in preserving fertility, is a hysterectomy typically the best choice?

**Dr Camran Nezhat:** Thank you very much Joanie for asking your question. Women who have had children, that have completed the family, they continue to have pain, they have to be evaluated very thoroughly. We cannot have a one size fits all approach. If there is a young woman in the 20s or early 30s and she has pain, we have to evaluate her to see why she has pain. If she doesn't have heavy periods, if she doesn't have adenomyosis, that means endometriosis in her uterus or her uterus is completely healthy, she might not need to have hysterectomy. All she needs to do, she needs to have endometriosis of other areas like she has endometriosis on her ovaries, she might have endometriosis on her nerves, on her uterus lateral ligaments, on her other nerves which causes a lot of pain. If the woman has nothing wrong with their uterus, she doesn't need to have her uterus removed. First, we should try other methods to treat the endometriosis, people will jump on hysterectomy, but on the other hand, if she has a lot of disease involving her uterus and she has tried everything else, removal of the uterus is going to be the only option and everything else has failed. Yes that might be the reason, that might be the only option if everything has else has failed. I hope I answered your question.

**Joanie Cox-Henry:** Yes you did. Thank you so much. And I was curious, have you found any links between alcohol and endometriosis and Diet and endometriosis?

Dr Camran Nezhat: You know, endometriosis is an enigmatic disease. It is very, very common. It has been said that 1 out of 10 women have endometriosis. Actually, you know, sometimes it could be even more common so and it behave very, very differently. Sometimes, a small amount of endometriosis causes significant amount of pain. Sometimes a lot of endometriosis causes no pain. We don't know what it is related to. We don't know if it's related to genetics, if it's related to food, is it related to environment? We know that probably that in half of these patients, some genetic factors might be involved, in about 50 % of our patients might be some genetic, some genes related, but not in all of them. In some occasions you might see environment could have some impact - environmental hazards, toxins, environmental pesticides. Some of them could have in fact, sometimes some of the foods might be related to, you know, endometriosis is so common that you can relate it to almost anything. To coffee, to alcohol, to thyroid disorder, to heart disease, what I'm trying to say is because it is so common, endometriosis, can be linked almost anything. We need more research. I admire people like the all the movements, the worldwide endometriosis march, Endometriosis Day, people like Claire, like Joannie, like others around the world that I see every day, they are interested in empowering and encouraging more research, to find out why women and young girls have endometriosis. It is not only a disease of the reproductive organ. It could affect your bowel, bladder, diaphragm, urethra, skin you name it, so we need more research to see what it is. Of course, a good diet is





good for everything and a bad diet is bad for everything. I have told all of my patients, when they ask what diet, I tell them, go ahead and look at our website – nezhat.org where we recommend a good diet.

**Joanie Cox-Henry:** Excellent. Thank you so much doctor, for all the work that you're doing to help further the research on our illness. We appreciate it.

**Dr Camran Nezhat:** No, it has been an honor and privilege to take care of young girls with endometriosis. Over the years, I have had, we have had our own family members or good friends afflicted by this enigmatic disease and hopefully now that there are international movements on the disease, interest in the disease, we are very encouraged, major medical organizations. We have to thank them that I know are interested. To name them – American Society of Reproductive Medicine, American College of Ob-Gyn, Society of Laparoendoscopic Surgeons, Federation of International College of Ob-Gyn, British Society, Royal College of Ob Gyn in England, ESHRE in Europe, AGL, ASRM, American College of Surgeons, everyone, all of these societies and especially American Medical Association, the young people like, Dr Robert Wah of the American Medical Association, very, very good investigators because, I had been doing research with Dr Linda for the past 25 years when she was at Stanford, now she's at the University of California in San Francisco. People like Dr Saida in the Northwestern, people like Dr Hew Taylor in Yale show a lot of interest in endometriosis. And I know sooner or later we are going to more and more progress and I am thankful to them. Progress happens when there is collaboration between different disciplines.

**Shweta Mishra:** Thank you so much for your answer Dr Camran Nezhat. Joanie thanks for your question. Dr Nezhat I'll just read out the questions that has been sent out from Samantha. Samantha, one of your patients could not join the call due to some personal reasons. So she writes – is there anything as a parent that we can do to prevent young girls from getting endometriosis to begin with? And if not, how close are we to finding a vaccination etc?

**Dr Camran Nezhat:** Thank you for the question. It is very important, that the name or the word endometriosis be on the radar of the parents with young girls because about 500 – 600,000 people in this country, US, have autism, everybody knows what autism is. But a very small number of people until 4 or 5 years ago, hardly even knew, some medical professionals didn't know what endometriosis is. We need more, the parents they should know that their young girls, young daughters, they get their period suddenly have to miss a school every single month for two or three days, in college they have to miss school, they need to be evaluative, we need to raise more awareness amongst pediatricians, among parents about endometriosis, teach them what endometriosis is, they take the young girls to the doctor and the doctor should evaluate the patient and hopefully prevent the young girls losing their ovaries to endometriosis or their fertility.

**Shweta Mishra:** Thank you for the answer. I hope Samantha must be listening to this conversation right now. The other question that she had is, how does the endometrial lining leave the uterus and attach to other organs and is this genetic?

**Dr Camran Nezhat:** Again, the question is a good one. As I mentioned, we know endometriosis is multifactorial. Genes might be affected in about perhaps around 50% to the best of our knowledge right now, but we know it is not all genetic. For example, not all the daughters of a woman are going to have endometriosis. It might skip a generation, it might not affect, but the genes could have some factors and it is the issue of a retrograde menstruation incidentally, which is called Sampson's theory even before Sampson, 300 years before Sampson Samson. This was by another physician called Sharone had postulated that endometriosis could be due to many factors. It could be genetic, it could be you are born with it, it could be as I mentioned – about 50% of the time it could be due to retrograde menstruation. It is multifactorial. We wrote a book called the Endoscopy and Endometriosis, Cyst Endometriosis and Ancient Disease – Ancient treatment. This was published by a very important Journal of Fertility and Sterility. And it is on my website, I recommend you go to www.nezhat.org and find History of Endometriosis, Endometriosis – Ancient disease – Ancient treatment, and you would be fascinated to see all the theories including retrograde menstruation, including the genetic factors, how it has been a revolving door for years, thousands of years, and how young





girls and women have been accused of everything including hysteria. And they mentioned Freud. Freud was totally wrong. Freud brought the history of hysteric women, a lot of his women and young girls had endometriosis and they used to call it, again, it is in our papers, they used to call it "angry uterus". Uterus is like an animal that travels all over the body and gets angry and they used to hang women upside down, shake them that their uterus goes back down to its normal position. So the history, there's so many theories about them. We don't know what is true and hopefully we get to the bottom.

**Shweta Mishra:** OK, well thank you so much for enlightening about the history of endometriosis. And it is a frightening history that you just described. Now my question is now that we're in this age of digital health, what is your opinion Dr Nezhat about mobile apps today? Like the Phendo app that we have around and track their endometriosis symptoms as they experience it daily and this app has recorded like more than 600,000 data points so far. So do you think apps like these maybe helpful in advancing endometriosis diagnosis and treatment in the future?

**Dr Camran Nezhat:** In my opinion, knowledge is power and all the wearables we call them as long as it helps the patient I have to support it. I believe knowledge is power, but I caution people/patients that unfortunately a lot of commercials and lots of unfortunately wrong hands are getting in the world because of the alternative motives. It has to be vetted carefully to be evaluated to see what is the purpose, what is the emotion, anything that has commercial on it, I would be very cautious including, you know, the goal has to be to help young girls and women. But I don't have any technology as long as it helps the patient. And I have no problem with, but it has to be evaluated to make sure I don't think it is fair for the women and girls to go out and spend the money on necessarily to be abused or the data being abuse. I caution people. You can see what happened recently with Facebook. I want people to be cautious of giving or sharing the information with people that they don't know.

**Shweta Mishra:** Right, exactly. Thank you so much for that information. But yeah, there are a lot of free apps around and Phendo app is a free app which allows women to track their symptoms as they are experiencing it in their daily life. Thank you for your answer doctor. With that I will move on to our audience questions. We have a lot of audience questions, we have got quite a lot of them on our website. So I'll just read them one by one to you. I think most of it we have answered in your talk so far. So the first question is, I would be interested to know about superficial Endo, as doctors call it. I have read that the cells can appear to be clear color, which makes it difficult to see. Is this true and what are the chances endo can get left behind because it's just not seen. For example, on the bowels.

**Dr Camran Nezhat:** Thank you very much for that smart question, I addressed it before that is true. I mentioned to you that I have been training physicians from around the world for many, many years from the best institutions in the world. When they come to me, they don't know even what endometriosis is. That means that teachers don't know what endometriosis is, so that means we need better training to train. That is why we started this speciality called endometriosis. This is the first one started by Society of Laparo and Endoscopic surgeons. We are very, very pleased to inform you a that American Society of Reproductive medicine with Dr Richards Reindollar, has been very forward looking in this and they have started a fellowship again for the reproductive medicines, reproductive surgery for endometriosis – So these are true. We need better education to treat and to recognize what endometriosis is as your question says white very superficial with a clear lesion, some are totally typical of endometriosis and they can escape the best eyes and anything that's suspicious should be removed, sent to pathologists. We need more and more training.

I encourage you, again, those of you who are listeners, you want to see some of this, please visit www.nezhat.org also to The Nezhat YouTube channel. They have some videotapes, also look into my publications at nezhat.org, you can find my bio, where you will find several hundred articles. You can look at each of them. We've got the video tapes, should be very helpful if you can share it with your physicians, they could benefit from it. Very good papers published in very good journals like Fertility and Sterility, Journal of Obstetrics and Gynecology. We had a paper about endometriosis of the ureter in Nature Reviews last June, an excellent paper review about endometriosis of the bowel and American Journal of Ob-Gyn called Grey Journal, and you can look at those papers. It would be very, very helpful to you. An update recently in





the Journal of Society of Reproductive Surgeons, these are all online, free on my website. You can download it for your benefit and these are all good peer-reviewed journals that could help you, you can help your doctors. Knowledge is power, if you are equipped with knowledge, you have to be very cautious, unfortunately there are a lot of unfair and improper advertisements on websites because it is not necessarily everybody who says, I am an excision-specialist, you have to be very cautious. You need to find a proper doctor. Somebody who could go without any training, without any expertise to try. Unfortunately, we see many cases of patients that have been damaged by people that when they are training up, they tried to excise the lesion, they got right into the bowel. They get right into the bladder or the blood vessels. It is the surgeon, the expert, the instrument and it is very, very important that you find somebody who is experienced expertise to help you.

**Shweta Mishra:** Thank you for your answer. Dr Camran, the next question is what are the best treatments available for microsurgery, I was left undiagnosed with endometriosis for 33 years and there is so much scar tissue that individual organs are not visible in ultrasound. I cannot risk a colostomy. How possible is it to have regular MRI scans for women with endometriosis so that we have understanding and control of our symptoms?

**Dr Camran Nezhat:** Again, thank you for your question. This brings me to what I said earlier. You have to be an educated consumer because there is no MRI if the disease is very advanced, MRI or ultrasound, ultrasound might be able to show some of it, if it is very advanced. If it is on the uterus, it might be adenomyosis, if it is on the bowel or rectum or vagina, but some of this does not any good imaging or any good test non invasive right now, the best recommendation is that you, again, we have region in worldwide endometriosis website, in my website – nezhat.org, in the endomarch website, we have written some guidelines about how to find a physician with expertise about endometriosis, please visit these sites, we try to guide you because again, there is no one size fits all. The more you read the more educated you become. And hopefully you will find some help.

**Shweta Mishra:** OK, so I have a couple more questions and we'll wrap up because we're almost at the end of the scheduled time. So the next question says, are you hopeful that we will one day perhaps in the next few decades, find a cure or prevention for endo that will not require surgery?

**Dr Camran Nezhat:** That is the goal. Hopefully the main goal is to first raise awareness. I encourage all of you who are listening to join movements like Worldwide Endometriosis March, Endometriosis Day, participate nicely, encouraging everybody to encourage more government fundings for your research institute, whatever it is, wherever in the world, anywhere in the world, to do more work to help provide what is endometriosis to find a non invasive diagnostic test. Hopefully when we find that, hopefully we find a method to cure it better and a method to prevent it. Of course, gradually progress happens on we are making ultimately in my opinion, when you find a good way to diagnose and treat endometriosis, we are on our way to diagnose and treat ovarian cancer also better and we help all the women around the world and this would happen, we are on our way.

Shweta Mishra: All right. Thank you that assurance Doctor.

**Dr Camran Nezhat:** Thank you very much for your attention so I think we are at the end of the talk. I encourage you to go to Worldwide Endometriosis March website and register on the website, look up Nezhat.org and you can find information. And if we can be of help to you at anytime, we will be honoured and privileged to. Thank you for interviewing us and thank you for helping women and young girls. Have a good night. Bye Bye.

**Shweta Mishra:** Thank you so much Dr Nezhat for your time and we really appreciate that you have such a busy schedule and you still found some time for us. Thank you so much Joanie and Claire, for your insightful questions and I thank all the people out there who showed interest in this talk and posted the questions on the page and I hope we were able to answer most of them. And our audience, I thank you for your support and we look forward to have you join us for our upcoming CureTalks on mind-body strategies to manage





stress and decrease physical symptoms in May with Dr Alice Domar.

If you would like to propose a talk or if you'd like to be on a fertility CureTalk, please email me at shweta@trialx.com. And for more information on the upcoming talks, please visit www.curetalks.com Thank you and have a nice day.

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