Academy of PHYSICAL MEDICINE

Transcript

Women's Health
With Dr Nitu Bajekal

APM: I'm in London, and we're going to be talking about women's health. I have with me in the studio Dr. Nitu Bajekal. She's been a consultant gynecologist and obstetrician for over 16 years now. She's a fellow of the Royal College of Gynecology, but I know that she will chime with you because she has a particular interest in nutritional medicine and what's called lifestyle medicine. Very much akin, hopefully, to our own way of thought. She's certainly not somebody who insists on putting people under the knife or just shoving pills into her patients. Nitu, welcome to Academy of Physical Medicine.

Dr Nitu Bajekal: Thank you for inviting me.

APM: No, it's a delight to have you here. You struggled to make it this evening because you were helping somebody in theater, I believe.

Dr Nitu Bajekal: My other half of my job involves surgery and this particular patient was quite a challenge. Not a particularly good timing to put it on, knowing that I was supposed to be coming here, but my colleague needed my help and this lady had chronic pelvic pain. She had very large fibroids, which are benign growths on the uterus. She had tried everything from medication to the ordinary progesterone-containing coil, but was really getting quite debilitated with it. We thought that it was going to be quite a straightforward hysterectomy, removal of the uterus. Turned out that she had very large fibroids that the MRI hadn't really been able to pick up as to how deeply they had gone into the pelvic sidewall, so she was quite a challenge. She bled quite significantly. Managed to do everything. Hopefully she'll escape without a blood transfusion because nobody wants to have a blood transfusion unless they really, really need to.

APM: But she's recovering well?

Dr Nitu Bajekal: She's recovering well. My colleague has just texted me. But yes, while I do like to do lifestyle medicine and I think it's the way forward, there is always a place for professional ... for surgeons.

APM: Well, it's nice to hear. Of course, it sounds like a very exciting life. We're here to talk more about how we, as physical therapists, might recognize patients who have conditions that you see on a regular and a frequent basis. I mentioned lifestyle medicine. You've just mentioned it. It's a term which I don't think I've heard before, although I think I know what it means. Is that something which is becoming more commonplace amongst consultants like yourself?

Dr Nitu Bajekal: I would love to say yes, but in reality the answer is no, because most of us, as doctors, have never been trained in understanding that ... looking at the patient as a whole, so we often zoom in on one area. If the appendix is a problem, we take the appendix out, but actually the appendix was never the problem when you look at the histology, and the patient has, maybe, anxiety and that's why she was presenting with abdominal pain. She may be having a hip problem, and that's why she was presenting with abdominal pain.

Lifestyle medicine is trying to look at the patient as a whole, but also realizing what Hippocrates said, "Let food be your medicine, rather than medicine be your food." I am a great believer in that. I do believe that the way we live our lives, both nutritionally and with lifestyle, has a huge impact, and we can see it. I do put a lot of the onus not on the patient or the public. I do think it's the government and us as medical professionals. All of us. We have a duty of care to listen to people and actually bring people together.

I often see doctors working against, say, homeopaths, or acupuncturists, or osteopaths, when actually, everybody needs to work together, because the ultimate goal, as far as I see it, is the patient's well-being. If you don't think of it that way, and you think of it as to what you have got to offer, and what others can't or can, then I think ... That's what I think lifestyle medicine is.

APM: One of the osteopathic practice standards, and it's probably true for chiropractors as well, is that we have to recognize the contribution of other medical professionals. It's very much easier said than done, isn't it?

Dr Nitu Bajekal: Mm-hmm (affirmative), it is.

APM: If you are a surgeon trained to use the knife, then, as they say, that's probably your tool of choice.

Dr Nitu Bajekal: Then there are pressures. It depends, some people may have their own pressures, personal pressures, they have mortgages to pay, children that they want to ... It's true. As a result ... and GPs will have targets to ... so telling somebody who has got hypertension that they should lose weight, they should eat less salt, eat less animal protein, it's too hard in 10 minutes because they don't have the time. It's easier to dash out a pill when actually, perhaps drinking Hibiscus tea a couple of cups every day we know is equal to having some of the antihypertensives. It's understanding that and I think people don't have the time or the knowledge.

APM: Where does your expertise on nutrition come from?

Dr Nitu Bajekal: It's a very personal story. I actually became menopausal at the age of 38. I thought it was stress. Most doctors are always in denial. In that situation, I was wondering what was happening when my younger daughter came home and said she's changing her diet. I thought a nine year old can't really be vegan. I didn't know what it meant because she ate sausages for breakfast, lunch and dinner. When she changed her life, I realized she was not going to ... she was not messing about, and she was serious about it. I joined her after a month of humoring her, and I realized that-

APM: In a vegan diet.

Dr Nitu Bajekal: In a vegan diet. My health ... I did it for ethical reasons and to join my daughter, and realized the huge health benefits of changing the kind of foods I ate. My symptoms were pretty much gone. From that point onwards, I realized that nutrition had a lot ... I always knew it, because I watched my parents and things, but I think it really crystallized in my mind, and then I started looking at it in much more detail, sifting out patients who were having issues and not. Based on that I built my expertise on it. I've done nutrition online courses.

APM: It isn't just a case study of one that made a difference?

Dr Nitu Bajekal: No, no, no. Got loads and loads of ... There is so much evidence out there that it is quite frightening how little we actually know about how we can help ourselves. I'm not talking about a vegan diet, I'm talking more about a whole-food, plant-based diet. It is vegan in a sense, but veganism has more to do with a lifestyle. It's got ethical issues and environmental impact and things. That's a very different thing from what we're talking about: health. For health, it is eating foods that we recognize, and not eating fragments, and eating the amount of animal protein that is processed in the way that it is. It's not really helping us and I'm sure you, as a professional also, must be seeing the amount of obesity that is there, the chronic illnesses, the arthritis, the osteoporosis. The China Study is one that I would recommend everybody to read by Colin Campbell, Professor Colin Campbell, which has looked at huge numbers of people in China, followed them through, and we can see how it extrapolates with all kinds of cancers and things.

APM: We'll dig that out and we'll put it on the website to go with the recording of this broadcast afterwards. You've mentioned briefly chronic pelvic pain. You've talked about osteoporosis. Two subjects which I know we'd like to cover this evening, but we're also going to look at endometriosis, at polycystic ovary syndrome, dysmenorrhea. We've got quite a mixed audience. I know you've heard already. We've got at least six countries watching us this evening. It's not just osteopaths and chiropractors, we've actually got nurses watching us, as well. There's a whole range of people to share their experience.

Dr Nitu Bajekal: It's always exciting, yes.

APM: Yeah, so where shall we start? You started with chronic pelvic pain.

Dr Nitu Bajekal: I think chronic pelvic pain is one that is quite traumatizing and difficult for women, because they're not taken seriously. You can't see that there's anything

wrong with them when you look at them. You might do certain tests and you don't come up with anything, but you know, pain is pain at the end of the day. Whether it is triggered by nerve pain, whether it is endometriosis, where the lining of the uterus grows outside and can cause tremendous problems. Unless you are experienced in picking it up, if you have done what is called keyhole surgery, so if I'm putting a telescope into somebody's abdomen, if I don't actually know what endometriosis should look like, and I only know the standard bond or textbook pictures, then I'm going to miss it, and I'm going to tell the woman that, "Actually, there's nothing wrong with you," and she's thinking, "am I going crazy? I have this pain. What's wrong with me?"

Chronic pelvic pain can range from everything, right from psychological aspects of pain that cause pain, to real conditions that are physically what we can actually identify: endometriosis, adenomyosis. Adenomyosis is a condition where the lining of the uterus pushes its way into the muscle wall and can cause very heavy, very painful periods and just chronic pain, and nobody might find out unless you do an MRI or a hysterectomy. Women wonder what's going on because they never had a problem before.

APM: Yeah, hysterectomy is a rather drastic way to find out the cause of a pain.

Dr Nitu Bajekal: Well, previously you couldn't diagnosis adenomyosis, so we were very knife-happy. When I first started training, and no disrespect, there were a lot of men in our profession, so people didn't think that much. If somebody came in with a problem, that was it. You walked out with a date for a hysterectomy. Didn't think about the consequences on the ovaries, on your feeling of womanhood, or whatever it might be. Developing other problems later. Chronic pelvic pain from adhesions, from ovaries getting stuck. People would do hysterectomies and when they looked at the histology they would find adenomyosis, so we know that that's how it was diagnosed. In some women, it is needed. We always need to do-

APM: What do you think the prevalence is, then?

Dr Nitu Bajekal: It's probably, I would say it's not like fibroids. Fibroids, one in two women will have fibroids. It's very common. Most fibroids don't create any problem. Adenomyosis, if you look for it in histological, it could be as high as 10%, 20% of women with pain and heavy periods.

APM: It's not a name which is bandied around, adenomyosis, is it?

Dr Nitu Bajekal: It isn't, but people, once they come to see a gynecologist, and if they're actually thinking outside the box, then they will realize what the problems are. You might see a woman initially because she doesn't know where her problems are coming from. You have to tease out from her what ... Is it orthopedic? Is it gynecological? Is it urology? Is it something that you can fix through dealing with her joints and her muscles?

APM: Interesting, I think I counted 13 possible causes of chronic pelvic pain, and don't ask me to recount them because I can't remember.

Dr Nitu Bajekal: No, that's fine.

APM: I certainly can't when I'm under the camera and the spotlights. There are myriad causes, aren't there, including the psychological, which you talk about.

Dr Nitu Bajekal: Exactly. As I said, pain is something that a person is feeling, so you can't tell somebody, "There's nothing wrong with you," because they're still feeling the pain, we just haven't found the cause. That does not mean it's not there, wherever it may be. It's understanding that. Once you approach any problem like that, then you get the patient on board, and then they are then willing to work with you.

APM: Yeah, but chronic pelvic pain is defined as, what, 12 weeks pain?

Dr Nitu Bajekal: Yes, it can be 12 weeks of pain, but often women will have years of pain and they've not found an answer.

APM: I speak outside my area of expertise here, but I get the impression that women are generally schooled to believe that pain is normal in the abdomen because-

Dr Nitu Bajekal: Yes, they are schooled to believe pain is normal. They're schooled to believe that periods are often heavy when they just started, or towards the menopause, and those things are not right. I mean, they may be not abnormal, but certainly it's not normal, and there are no gold medals to suffer unnecessarily if there is an easy answer that they can actually find, whether it's helping themselves, or whether it is us helping them. We need to be open to listening, and if you can't actually deal with somebody, then you should be happy to refer them on. It may be either way. You might want to refer patients to medical doctors, and we should be willing to refer patients to other professionals.

APM: I suspect for most of our viewers this evening, most of the osteopaths and chiropractors, what we're going to be doing is we're going to be sending people back to their GPs because we don't generally have a direct route to the consultant. When somebody comes, your patient earlier on today, what would she have come in initially complaining of 12 weeks ago or longer?

Dr Nitu Bajekal: This particular patient would have come in, actually she came in longer than 12 weeks because she did try lots of other things. She came in just with a feeling of heaviness, feeling of backache, and pain that she didn't know. She didn't know whether it was coming from her bowel, whether it was coming from her back, and she had actually seen alternative practitioners. I think she went to ... She was doing Yoga and then she went for a massage where the practitioner felt her abdomen and said, "I can feel something here. Maybe you need to get it checked out." This patient was not actually my patient, but I know the story.

I have seen many times where women haven't been aware and they have come. You don't have to always operate on these women, it's only when you combine all the factors then they may need it. Some women may need very small procedures just to help them.

APM: How would you suggest we best distinguish the patient who thinks she may have back pain, she's had it for a few weeks coming to see one of our viewers, but actually it may be something more.

Dr Nitu Bajekal: I think when you take, because I'm sure you must take a story or a history from the patient. You will know that if she's been absolutely fine, and she gives you a history of tripping, and falling, and hurting her knee, for example, then you know that likelihood that that is what's causing the pain. It will settle, or she's had a broken foot, or she's got pain but she feels it's coming from her abdomen, and you take her history, and you find that actually she says that she's very constipated, is not able to open her bowels. That will sort of guide you, and you might talk to her about dietary things and say, "Go see your GP and it might help you."

On the other hand, if you are doing any manipulations and you actually feel that things feel more rigid, or you can actually feel something when you examine her, then you would tell her, "I think you should go see your doctor and perhaps have some tests, or at least have a discussion with them to see ... " It may be nothing, but the truth is that we can't always feel everything with our hands nowadays, because there are conditions that we can only pick up with ultrasound and things. It is a harmless test. However, no test is harmless, because sometimes you then get onto that rollercoaster that you can't get off. As I said, all fibroids don't need to be treated. If it's just silent, the woman doesn't know about it, doesn't cause her problems, she doesn't need anything to be done.

But pain has to be taken seriously. It could be, as I said, it could be nerve pain, it could be pain arising from a disk, it could be pain arising from a fibroid that's become very soft, it could be from cancer. From your point of view, you're going to take a detailed history and if it doesn't sound right, she doesn't look right, you will want to refer her on.

APM: You said in this particular case you've been working on today, that she was made aware of her problem by somebody palpating her abdomen. Could you palpate something unusual in this case, which was endometriosis, you said?

Dr Nitu Bajekal: No, this particular patient had big fibroids.

APM: Big fibroids, okay.

Dr Nitu Bajekal: She had, she was almost like a four or five month pregnant person. She's overweight, so she has had them feel it but she knew that she was feeling this heaviness, she was having this back problem, and I think it helped her. She was having heavy periods as well, very heavy periods, and the pain. I think she was looking at other ways. She's 50. She's thinking, "I'm almost going to become menopausal. It will all settle down. I'm sure it's just the time of my life." Then, actually it turned out that she needed help, because she was very anemic when she first came, and I know my colleague did other things for her because she wanted to avoid major surgery.

APM: She's anemic because of the heavy periods.

Dr Nitu Bajekal: Yes.

APM: Are heavy periods normal with fibroids?

Dr Nitu Bajekal: It can be. It all depends on where the fibroids are located. These are lumps of muscle that start off in the wall of the womb. They can push their way out and make you look almost pregnant. That may not cause heavy periods, but even if you have a tiny fibroid, the size of a pea, inside a womb, which is the size of a small orange, you can imagine that just by increasing the surface area, it can make you bleed in between, it can have heavy bleeding. Fibroids, the size is not as important as the location, and the timing, and how it behaves. Sometimes they can undergo necrosis and they can degenerate, but most of the time women don't actually have any symptoms from them. I wouldn't worry if somebody does have fibroids, it's just a question of are they creating trouble, and so that may need investigation and then reassurance or not.

APM: Yes, okay. One of our viewers has sent in a question asking if you know of the ... have you got any opinions about the effect of soy on estrogen?

Dr Nitu Bajekal: Soy is extremely good. It is a phytoestrogen, which means it's an estrogen from a plant. Soy has been sort of glorified a bit and demonized a bit. The truth is, there are so many plant foods that are rich in natural estrogens.

APM: I can add to the demonization because soy milk tastes foul. It's horrible.

Dr Nitu Bajekal: Oh no, it doesn't. It tastes wonderful, actually. It's like with anything, if you try something about 10 times you will love it. The thing about soy milk is that soy milk is processed. Edamame beans are the real beans. As almonds in almond milk, it's processed form, almond milk, but you can't have excess of phytoestrogens in any form. If you drank, nobody should drink, but if you drank two gallons of soy milk, any excess estrogens that you would have taken in would get excreted. Unlike dairy's estrogens, which hang about in your body because animals are often injected with estrogen. In fact, most of the estrogen in our sea water and lake water is from the animal manure rather than women taking the pill. People often think it's from the pill. The pill contributes to less than 1% of women who take the contraceptive pill, then they pee it out and that contaminates the waters. Actually, from animal manure and animal produce-

APM: Is that actually a problem?

Dr Nitu Bajekal: It is a problem, because then men start having ... there can be all kinds of issues with excess hormones.

APM: Is it a problem for sea life, as well?

Dr Nitu Bajekal: Sea life, for fish, for what you ingest, the PCBs in the fish, all kinds of things. Coming back to the question about soy, people often say, "Oh, I have had breast cancer. Can I take soy?" Yes, you can take soy, you can take ... There are different types of phytoestrogens. They are there in flax seed, in cereals, in

chick peas, in kidney beans, in soy beans. They're ubiquitous and they're not dangerous. You can eat any amount of those beans and have natural estrogens and not be worried about it.

APM: Okay. You mentioned earlier the size of fibroids. In the particular case you were dealing with today, someone wants to know what was the actual weight of these fibroids?

Dr Nitu Bajekal: This particular patient had, it was the location of the fibroid and the size. She had about six fibroids. One of them was about 10 centimeters, but that was the easy one. The problem was, the one that was about the size of a big orange, but had burrowed itself. It had sort of undergone change inside, liquified, and burrowed itself into the pelvic side wall, which meant that it had sort of grappled around the uterine blood vessels. When we dissected it away, the blood vessels were out there, really angry for having got disturbed. There was another fibroid called a cervical fibroid. If you look at the uterus or the womb, the body of the uterus leads into the cervix and the cervix ideally should not have ... Fibroids tend to be in the muscle wall.

APM: We've got a slide of that.

Dr Nitu Bajekal: Yes, so you can see a fibroid sitting on the top. If I just use that, yes, can that be seen?

APM: Yeah.

Dr Nitu Bajekal: That's a subserous fibroid. A fibroid when it starts off in the wall but has pushed its way out. Then you have a fibroid that can be called a fibroid polyp, which is stuck inside the womb, and that can cause heavy bleeding, and bleeding in between your periods. Then there can be fibroids within the wall itself and increase into huge sizes. My particular patient had a fibroid in the cervix, she had a fibroid sticking out into the side wall, she had another big fibroid on the top of the womb, and then there were a whole lot of other fibroids. That's not unusual. Women can go to their grave not knowing that they've got multiple fibroids. African, Caribbean women, Asian women, they can have ... 75% of women, on postmortem, will have fibroids. It's very, very common. It's where they're located. You can have a tiny fibroid near the fallopian tube over here, and that can create fertility issues. You can have huge fibroids and women will never know until it becomes such a size that people will start asking them are you pregnant. You know?

APM: I'm jumping around here because I'm getting questions coming through.

Dr Nitu Bajekal: Yeah, yeah. There's so many topics to discuss.

APM: There are, yeah. You talked about the hysterectomy today and one of the viewers has asked, "What's the consequence for hysterectomy on the ovaries if they are left in?"

Dr Nitu Bajekal: There are studies to show that if you have taken the uterus out ... A hysterectomy involves taking either just the body of the uterus out, the body of

the uterus and the cervix out, or a total hysterectomy where you take everything out. We tend to do most of these procedures keyhole, so I tend to do most of my hysterectomies laparoscopic. This particular patient was not suitable for something like that because it was just too difficult. The two patients before that, that we did today, they were straightforward in the sense even though they were difficult technically, we were able to do them keyhole.

There is a implication. Hysterectomy should not be taken lightly. The reason being that you disturb the blood supply to the ovaries. Even though the blood supply to the ovaries come from two sides, the moment you start putting clamps on your operating sides, you are going to disturb the blood supply. There have been studies to show that women who have a hysterectomy often will have menopause two or three years earlier than they were due to have it, which means then they are not having your own hormones, so you're then going to have an increased risk of osteoporosis, all the risks that comes with menopause.

APM: It's an interesting statistic, given that the range of dates for menopause is so wide. That is to say two years, I mean, that could easily fall within the bracket, couldn't it?

Dr Nitu Bajekal: It could be, but we know this from studies that because the average age of menopause is 51 all over the world, irrespective. The average age of menarche, which means when a girl starts having her period, now is becoming lower and lower because of improved nutrition, but also the amount of foods that we eat that have got a lot of hormones in them. Injected hormones. But the age of menopause is steady at 51. If somebody has a hysterectomy at 40 and they start having menopausal symptoms, hot flashes, night sweats, when they should have, technically, their mothers had menopause at 51 or 52, their sisters are still going, but they have had it much earlier at 44, 45. You would assume that the hysterectomy had a role to play with it.

One has to be quite sure that you explored all the other options before deciding that somebody would benefit from a hysterectomy. It is life saving in many patients, and life quality changing in many patients, again. So, you know, it's being aware.

APM: In answering that question, the hysterectomy that leaves the ovaries in place, you might see a slightly earlier menopause.

Dr Nitu Bajekal: Earlier menopause, and so that's not something that some women would want to have. In other women, this particular woman wanted, needed her ovaries out. She was 50. The benefits of removing the ovaries to reduce the risk of ovarian cancer when you are doing major surgery already is probably in her interest.

APM: Okay, if a patient presents to you with chronic pelvic pain, what's your diagnostic sieve? How do you work it? Do you immediately send them for MR scanning?

Dr Nitu Bajekal: No, not at all. The first thing I would want to do is take a very detailed history. I

tend to take a history which encompasses not just the gynecological history, which means when did you start your periods? When was your last period? What are your periods like? Have they changed? Is there pain? Do you have bleeding in between? Do you have pain? Do you have pain on intercourse? All these sort of questions, but I also ask them about their medical history, about their surgical history, about their family history, about their bowel symptoms, about their waterworks. Essentially, you take a full detailed history. Find out, you know, if they're young then you want to know are they happy, are they in school, are they being bullied at school. You want to know as many questions about their social history, about their personal history, as well as, about their gynecological history.

If they say, "I wake up and have pain every single day, every minute of the day," then you have to almost always explore it, because it's unlikely that you're going to find a gynecological problem that causes pain all the time. If somebody says, "I have pain leading up to a period, and then once my period starts it actually gets better," then you're thinking this may be endometriosis. Others might say, "Actually, I'm fine. I never had painful periods at all, and now I'm in my 40s, I'm having these painful periods. I don't feel well the rest of the time," and you're thinking, "could this be adenomyosis?" Then you're thinking of other patients who say, "I did have chlamydia when I was younger." You take a history. Is there a history of sexually transmitted infections? What happened? Were you treated? Did you have any consequences? They might say, "I did have vaginal discharge for quite some time. The infection came back," and you're thinking, "this could be scar tissue. This could be adhesions."

Others might say, "I've had a cesarean section," "I've had four cesarean sections," "I've had one cesarean section." That may leave them with scarring. Different people react differently inside, so somebody may have just one operation and have lots of scar tissue. Others may have loads of surgery and everything is pristine inside. You've got to tease out everything from a very detailed history, because a patient is the best person to tell you this. It's her body. They are able to talk to you about such things, and then you work out and decide does somebody need an ultrasound scan, after you've examined them. Does somebody need an MRI scan, does somebody need to go and see a pain specialist, or does somebody just need reassurance and say, "Actually, you know, let's try and do this, this, and this. Maybe it's your bowel. Maybe you have to change your diet a bit. Maybe you have to improve on some other areas. It's actually doing a bit of detective work. That's how I look at it.

APM: You mentioned earlier on, you mentioned a whole load of questions that we might ask patients. A lot of those, I suspect, particularly for male practitioners might be quite difficult questions to ask. One of them was bleeding between periods. If someone's got chronic pelvic pain I might ask that question, but I don't know what the significance is, so why would I ask it?

Dr Nitu Bajekal: You don't know that they have chronic pelvic pain. You are taking a detailed history. They might come and tell you, "I have pain," but you may actually then find out that they're having issues with their periods, or the pain that they're having is related to making love, or they're anxious that they've not got pregnant and so they're having pain. Unless one asks all the questions, you

can't make the diagnosis of chronic pelvic pain, because that's a retrospective diagnosis. You will ask these questions, only as a specialist for myself, you may not ask, "Are you bleeding in between your periods," but you may ask other questions. "Do you have any problems with your periods?" They say, "Yes," and you feel not confident enough to explore that, not because you're a male but just because it may not be your remit, then you might say, "I think you should go to your doctor and explore this in a little bit more detail."

I don't think there's a problem as a professional asking any of these questions. Yes, if you're examining somebody, and I know it's always difficult for women and male professionals. We are slightly more vulnerable nowadays because you need to make sure that you have a chaperone when you are doing [crosstalk 00:29:39], but it's not always feasible. You have to go with your gut instinct. You have to go with trust with the client. It is an area, but sometimes you have to ask these questions if you think one question leads onto the next. You're not suddenly going to just ask them, "Do you have pain on intercourse?" But, it might lead up to those sort of questions, and then ask them. I can ask them very easily, because I'm a gynecologist. That's what I do.

APM: Of course, yeah.

Dr Nitu Bajekal: For my husband, who is a spinal surgeon, he may be asking questions and actually find out that it's not really the back that's the issue. It seems to be the back problem every time she opens her bowel, which might be a sign of endometriosis. Now, they might not be able to link all that up, because not all of us know all the signs, but they might, they should be able to say, "This is something outside my remit. I need to send them on to maybe the GP who will then refer them on to the colorectal surgeon or the gynecologist for further ... "

APM: Yes. I just want to ask, because we've covered some ... in some depth in a previous broadcast, the question of chronic pelvic pain. Have you come across the problem of over-breathing or hyperventilation in your professional career?

Dr Nitu Bajekal: I have seen a few patients, but that was actually ... The two patients that I did see were not in this country. I trained in India and I saw two young ... well, one of them was a very interesting case. We were a tertiary referral from all over Asia, actually, the hospital where I worked. This young person was brought in with hyperventilation and anxiety kind of symptoms. Later on, we realized that she wasn't getting pregnant, and when we did all the chromosomal tests she was actually ... she had what is called testicular feminization syndrome, where her chromosomes ... She was actually male, but because of the lack of a particular enzyme, her male organs weren't responding, and so she was phenotypically a woman but genotypically a male. Her anxiety and hyperventilation was triggered not by knowing that diagnosis yet, but from the fact that her ... This was in India. From rural India they had come, and her husband had taken on another partner because she was not able to have children. So that was one, but nothing ... I have not seen hyperventilation and pelvic pain as a ...

APM: I only mention it because there is a very famous osteopath and naturopath called Leon Chaitow who has written quite extensively on this subject. In fact,

he's in his 80s now and I think he's written over 90 research papers, and he edits the Journal of Movement Therapies. In his research, he's shown that hyperventilation increases the CO2 load on the body, which reduces the body's ability to handle pain. It's fascinating, of course, to get away from the structural stuff and to think that, as you've mentioned, central sensitization, hyperventilation, over-breathing, previous trauma, and so on, and stress, can all be huge factors in this.

Dr Nitu Bajekal: Huge factors. I mean, they are so much underestimated by the allopathic medical profession that you will see that at some point, when patients have been given a whole number of drugs and it's not working, they will then turn to other professionals for that advice. Sometimes it can just be a cry for help as well, because they're manifesting pain, because there is not a physical reason, but a psychological reason, and it is for us to try and tease that out and help them.

Again, it could be neurological pain that, again, doctors are not very good at picking up. I see a lot of patients with a condition called vulvodynia and that involves ... often they are type A personalities, they're quite high achievers, they may have eating disorders, but they often will have symptoms of vulval burning, soreness, so much so that they can't even insert tampons, or they can't have intercourse. When you and I have somebody touching our hand, you can feel touch and pressure. These women and men, of course you can get trigeminal neuralgia, it's like a neuralgic pain, and so they then may need lots of different types of treatment. Whenever you have lots of different types of treatment, it suggests that you don't really know exactly how to handle it. Everything is tried, from cognitive behavioral therapy, to medications like Gabapentin and tricyclic antidepressants, but also just acknowledging that the person has an issue. These women often I will see, have gone to numerous professionals and have been told that sometimes they have Thrush, there's nothing wrong with them. When they have a diagnosis it makes it easier for them to accept it and then deal with it and that, I think, is again very important.

APM: Yeah. A lengthy question here, or slightly lengthy question. How important do you feel estrogen dominance is in terms of etiology of common problems like endometriosis, fibroids, PMS, heavy bleeding, et cetera, and how do you treat estrogen dominance?

Dr Nitu Bajekal: We know that it's not estrogen dominance but these are all estrogen-fed conditions. Endometriosis, endometrial cancers, polycystic ovarian syndrome, all these conditions are linked with increased estrogen. We know obesity increases estrogen. Why? Because the body fat is a source of steroids, and steroids are then diverted into cortisol, into estrogen, into progesterone, into testosterone. Estrogen, then, has a deleterious effect on the uterus, as such. When there's too much of it, fibroids tend to be ... we know it's estrogen related. When somebody has got fibroids, when they reach menopause, the fibroids tend to shrink. We know that. Endometriosis, when it's really bad during the reproductive age group because they have estrogen floating around, when they reach menopause that becomes less.

Estrogen is a known factor. We know estrogen has a huge role to play in breast

cancers, as well. It's not so much of a dominance, but we do know that obesity, particularly, increases all these conditions. The only group of women who double up, for example, womb cancer, endometrial cancer, under the age of 35 tend to be overweight, obese, polycystic ovarian syndrome sufferers, and that has to do with the high levels of estrogen that floats around in their body because of [crosstalk 00:36:37]

APM: How do you define obesity?

Dr Nitu Bajekal: Whether it's BMI, or-

APM: Well, I've always felt that the BMI is a fairly crude tool for measuring.

Dr Nitu Bajekal: Yeah, you're much better off actually, if you are able to, and it should be at least in a GP practice, the best way is to measure the waist at the level of the bellybutton, and it should be half your height. We know that BMI on its own is not great, but it's a good tool because you don't have that many body builders and you don't have to worry that much about ...

APM: And it's usually fairly obvious if someone's got a high BMI and they're a body builder, you can see.

Dr Nitu Bajekal: Yes, you can see it. BMI is still a very good way of working out, because not everybody wants to have their waist measured. At least the BMI is a starting point where you can say this is what it should be and this is what we find. You have gone into the obese range where just losing some weight will help to take so many of your risks, whether it's cancer risks, we know all lifestyle cancers increase with obesity, whether it's bowel, prostate, breast, or ovarian. They all increase ... endometrial cancers. They all increase with obesity, and obesity is estrogen-linked. I hope I have answered the question of your [crosstalk 00:37:52]

APM: I hope so. I was just going to ask does the problem increase with increasing obesity? Is there a linear rule on the curve that-

Dr Nitu Bajekal: Yes, yes. Of course, obesity also has other impact. Arthritis, heart disease, diabetes, hypertension, and then of course any surgery that we do, like today's patient was rather large, so it does make it harder. Makes it harder even for the surgeon, you know? You end up having neck pain and difficult problems. It was difficult. Thrombosis afterwards, recovery, infections. Being overweight is bad, but being obese is much, much harder for the person. It's difficult, because unless you actually have structured advice, there's so much wrong advice out there about how one can help themselves, because there are so many diets, so many things. People get very confused, and that doesn't help people lose weight.

APM: You're an advocate of HIT training, aren't you? High-intensity interval training.

Dr Nitu Bajekal: Yes.

APM: You said this is for everybody on one of your slides that I saw.

Dr Nitu Bajekal: No, it's not for everybody. There are some people who won't do well. When I mean HIT training I don't mean going to the gym and pounding something. I mean, if you are like I was, just coming on the tube, on the underground, so you're walking, you see an escalator, run up the steps. That's HIT training. HIT training basically involves increasing your heart rate for very short periods, depending on how fit you are. HIT training may be, for somebody who is really obese, going and opening the door. It's HIT training because [crosstalk 00:39:25].

APM: Stand up and sit down.

Dr Nitu Bajekal: Yeah, stand up and sit down.

APM: This is a useful exercise.

Dr Nitu Bajekal: Exactly. If you're walking, you walk a bit faster, get your heart rate up. That's high intensity interval. If you're cycling, cycle a little bit faster. Swimming, it doesn't matter.

APM: This actually differs from the gym definition of HIT training, which is-

Dr Nitu Bajekal: No, no, no. I'm not talking about-

APM: ... high intensity for a minute, leave it for 15 seconds and then go back again, and there are a number of [papers 00:39:44], or disciplines [crosstalk 00:39:46].

Dr Nitu Bajekal: Yes, of course and yes, you can do it in the gym, but who wants to go to the gym? It's boring. You want to do it as part of your daily life, and that's ... You're walking the dog, run up the hill with your dogs and that will get you ... and once you're out of breath, your hormone levels tend to normalize as well. Great treatment for polycystic ovarian syndrome. Not so good for menopausal hot flashes. If you're not doing high intensity interval before, don't suddenly start it when you're having hot flashes, because that will make it worse. It's understanding that, but yeah, when I talk about high-intensity interval training that's what I mean. Not the hardcore stuff in the gym.

APM: What's a bigger problem for you in your practice? Is it obesity or the other end of the eating disorder spectrum? The underweight, undernourished.

Dr Nitu Bajekal: Obesity. Hands down, obesity, because there's too much of processed food, there's too much of junk food, there's too much of animal protein in our diet. Without a doubt, all that needs to be cut out. Everybody should be focusing towards a whole-food, plant-based diet.

APM: It's hard work to do that, isn't it?

Dr Nitu Bajekal: It isn't hard work because it's very tasty, and when it's very tasty, then there's absolutely no reason. The reason why it's so difficult is because there are so many mixed messages out there. People get confused. They think, "Where do you get your protein, Dr. Bajekal?" Do I look like I lack in protein? No, because

plants give you all your protein. The elephant, the gorilla, the ape, they have very strong muscles. They live long. They don't eat animal protein. Same thing. If you don't want to look like a gorilla or an elephant, and you want to look like a deer or an antelope, they eat the same. Actually, the lion and the tiger, when they chase, they only get the infirm and the very young. They don't get the young and the fit because they can't run very fast. We know that actually you don't need to get your protein from animals. You want to eat animal protein, then you eat it because you like the taste. Those are very different things. Like telling yourself alcohol is good for you. No, it's not. You would have to drink about 16 bottles of red wine for it to be good for your heart, but we all know it's great for the soul. You want to drink a glass of wine, you drink it because [crosstalk 00:41:57]

APM: Did you just say I could drink 16 bottles of red wine and it was good for my heart?

Dr Nitu Bajekal: Well, that was a study. That was actually the study that you have to drink equivalent of the anthocyanins and all the right antioxidants that come from red wine, you'd be dead from cirrhosis, or ... You're much better off eating a bunch of red grapes, but that doesn't necessarily tick the boxes every time, so you want to have your glass of red wine, but people often convince themselves ... They like to hear good things about their bad habits. They want to hear that animal protein is great for you. Let me eat my bacon and sausages. Well ...

APM: But also, of course, the newspapers, or Twitter, or Facebook, from which most people seem to get their news these days. They like an interesting, what they would call interesting story. It's much more interesting to say chocolate is good for you. It's a very famous study, isn't it? It was completely bogus, but all the newspapers picked up on it, and then the public was led to believe that chocolate was good for you.

Dr Nitu Bajekal: Yes, but people like hearing that. They want to hear that butter is good for you. They want to hear that chocolate is good for you. We are taking people down a merry path, and as a result, we have got an exploding ... I've just come back from China, and it is quite sad to see the epidemic of diabetes, and it's purely ... All our diet should have 80 to 90% of carbohydrates. Instead, what we do is we load our diet with protein and now we have osteoporosis. We know from the Harvard study, very, very good study, that has shown quite nicely the role of animal protein and dairy on osteoporosis. Deleterious effect because of the way protein has to be excreted from our kidneys, but the industries don't let us hear that. As a result, we get ... we know that even having equivalent of a small amount of dairy doubles our risk of hip fractures and osteoporosis in women, the big study that was done from Harvard.

APM: Which, I suspect is counterintuitive, because people imagine if you drink milk you're getting calcium. If you drink skimmed milk you're getting even more calcium.

Dr Nitu Bajekal: Yes, so skim milk is even worse than high fat, because the moment you take fat out of dairy, the casein, which is actually implicated in breast cancer and things, really comes up to the forefront. If you're going to drink dairy, you're better off

drinking the full fat rather than the skimmed.

APM: Even though the semi-skimmed or skimmed has more calcium.

Dr Nitu Bajekal: Yes, so the basic problem, and I don't know whether this is the discussion today, but-

APM: No, I think a lot of our viewers will be really interested in the nutritional component in health, and osteoporosis is a big issue, which we were going to cover separately.

Dr Nitu Bajekal: Absolutely, so we know that osteoporosis is very characteristic in the Western Hemisphere and in India, where there is a lot of animal dairy that is had, and the Harvard study, if you actually look at it, has followed thousands and thousands of women. When we look at women, we look at Southeast Asia: they don't have osteoporosis. Osteoporosis was non-existent until animal protein came into our diet in such high quantities. When you look at your great-grandmother or your great-grandfather, they would have had meat or dairy as a treat. They did not have it every single day in every single meal. We know that processed meat is now a type one carcinogen. We know that most meats fall into the type two, not so good for us. If you can avoid it, why not? There is plenty available. If you're going to indulge in it, indulge in it like you would with alcohol. You want to have it, you have it. Don't con yourself into thinking that it's good for you, because you're not doing your bones any good. You're not doing your weight any good. You're not doing your cancer risk any good. You're not doing most things any good.

APM: I was going to ask how you convey this to your patients, many of whom will be used to going to McDonald's once a day. I'm guessing that you can convey it through passion because you're very obviously very passionate about it.

Dr Nitu Bajekal: I am very passionate because I have seen my patients benefit so hugely from changing their lifestyle. What I tend not to do is ... What I like to do is tell them what they should eat rather than what they should not eat. The moment you understand that, because people ask me, "What do you eat, Dr. Bajekal?" You can eat any amount of fruit. There are plenty of studies to show if I fed you 20 portions of fruit every single day you would still not become diabetic, because there is this big misnomer amongst lots of diets, "Oh, fruit is bad for you because it's got sugar." No. Nature has put fiber in it, and that's why you can eat fruit, all fruit. Diabetics can eat fruit and they can eat it freely. Eat as much fruit as you want. Eat as many vegetables as you want. Okay? The more colorful the vegetables the better for you.

Eat beans. I don't know if you know about the blue zones. Blue zones tend to be groups of people in, say, Sardinia, in parts of US, the Okinawans in Japan. There are pockets of people that live very long. The Seventh Day Adventists are great people who we know, and we follow them because many of them are vegetarians. Some of them are vegans, some of them eat some amount of animal protein, and we know by watching them how their diabetes risk increases as they increase their animal protein. These blue zones, we know one of the big factors that is responsible for their longevity is not olive oil, but

actually is beans. Eating beans and lentils and pulses because fiber ... Animal protein has no fiber. Eggs, fish, meat, chicken, dairy, no fiber. You need fiber for good bowel health.

APM: Right, so All-Bran had it right for years in making us eat pots and pots of All-Bran.

Dr Nitu Bajekal: Yes, but All-Bran is again processed, so you're better off, again, eating the real deal. All fruits, all vegetables, nuts, seeds, beans, lentils, pulses. If you can focus your diet on that, and then the rest of the time, when you want to eat your chocolate cake you eat it, but eat it mindfully. That would be my advice. I draw up a little chart for patients so that they know how to incorporate things and where to look for good sites, and recipes, and things, because people often don't know how to cook.

APM: Is that something you could share with us, or is it specific to each patient?

Dr Nitu Bajekal: It's specific to each patient.

APM: Oh, okay. I've just been asked by some-

Dr Nitu Bajekal: Come over to my place, I'm a very good cook.

APM: You heard that. We'll get the address for you later and we'll pop 'round. You probably just answered this, but somebody's just asked: how do we advise our patients and ourselves as to what is a beneficial diet? What are the specifics of it? You've given a lot of that, but you said some good sites for recipes and so on.

Dr Nitu Bajekal: Well, if I can mention a book that I think everybody should read, all professionals should read, is called How Not to Die. It is worth its weight in gold. It's by a physician who is very passionate and does non-profit work and every single statement that is made is backed up by hardcore research that has been buried under lots and lots of industry research.

APM: I suspect you'll sell a few copies on the back of this broadcast because that sounds as though it would appeal to a lot of people watching.

Dr Nitu Bajekal: It is certainly, certainly, certainly worth reading. I have felt so passionate about the change that people can bring through lifestyle, that I have set up my own Women for Women's Health, because I feel that women need to be empowered. When women are empowered they empower men, because men tend to listen to women, generally. Or at least it's an easier life. Community listens to women, so I feel that by ... Once you have the knowledge, you can then choose what you want to do. People might say, "But I love my steak." Love your steak, but don't con yourself into thinking it's great for you. Once you have that knowledge, we all know that eating a cake is not necessarily good for us, but it's great for the soul for some people, so you want to eat it. I want to eat a vegan cake. It's not whole food, it's plant based, but it's not whole food, but I still want to eat it. It's all these choices that we have to make. It's very simple. It doesn't sell many books, actually. Eating low down in the food chain, eating

smaller amounts, eating sensibly, living a good life doing charity work, sleeping well, being kind. These are things that are important in life, I think.

APM: Two related questions: do you have a view on so-called low-carb/high-fat diets? And someone else has asked about protein, and why we currently are being recommended to eat more protein?

Dr Nitu Bajekal: I absolutely detest the idea of a low-carb/high-fat diet, simply because we know that all communities that have lived long have always survived on a high-carbohydrate diet. You must not get confused with carbohydrates with processed foods. That's why diets like the high-protein diets and all work initially in helping you lose weight-

APM: This is the Atkins diet?

Dr Nitu Bajekal: Atkins diet, where the poor man died of his own diet. We know that when you have low carbohydrate, or you have a high-protein diet, basically what happens is you cut out things like cakes, and biscuits, and white bread, and all the things that you should not really be eating in your diet, so initially, you might lose some weight, but the problem is protein puts a huge load on your kidneys, puts a huge load on your heart, it puts a huge load on increasing your risk ... Eggs and chicken increase your risk of things like prostate cancer. Fish has got PCBs and mercury. We don't advise women to have more than a portion if they are going to eat fish, because of all ... especially salmon and things that are great traps for high cholesterol-

APM: More than a portion per ...

Dr Nitu Bajekal: Week.

APM: Per week, yeah.

Dr Nitu Bajekal: We know that the reason you're being advocated to have high protein is, just stop and think, who are the industries that benefit the most? I always say there is no vegetable lobby. Nobody is going to tell you to eat more potatoes. Nobody is going to tell you to eat more sweet potatoes. But the salt industry, the sugar industry, the dairy industry, they're very, very powerful, aren't they?

APM: Over the last year or so, the recommended intake of fruit and vegetables has gone from five to seven to 10 per day. Where do you stand on that?

Dr Nitu Bajekal: I think it should be at least 13 to 15 a day, and it's very easy. What constitutes a portion? What you can get in the palm of your hand. It's not a lot, actually. If you're a little child it may be two slices of an apple, but if you are an adult it would be one apple, a couple of plums, a couple of satsumas, a big salad for lunch with hummus and chick peas.

APM: You put in the presentation of yours that I've seen, you put some guidance on there. Can I share that with our audience after [crosstalk 00:53:13]?

Dr Nitu Bajekal: You can share anything you want.

APM: Okay, well I will put that up on the website afterwards. Somebody has asked what we can advise patients to eat specifically for endometriosis. A lot of what you talked about was-

Dr Nitu Bajekal: We do know that, again, this comes back to eating a whole-food, plant-based diet. Most mainstream doctors and consultants will not advocate this because they feel there's not enough science. Certainly, we know that a lot of foods that are inflammatory tend to be of animal origin, because you have growth hormone in them, you have the VGF in them. There are lots of things that you and I ... For example, dairy is meant for a small little calf to grow into a 300-kilo cow. We're not really meant to be having that, so these sort of inflammatory foods, when women cut it out of their system they'll often find that their symptoms improve. But nobody has done a serious randomized trial, but we know this from common sense that it actually makes a difference when you focus on whole foods, plant based, you will find lots of conditions, including endometriosis can actually make ... Life can be quite intolerable for women with endometriosis. Yes, you can be on the pill, and you can be on the Mirena coil, and you may have a hysterectomy, or I may do keyhole surgery, but those are all stopgap things. You've got to build it up, bolster it with something that can last you for the rest of your life. That's the important thing.

You don't stop traditional medicine, or coming to see you, or coming to see me, but hopefully you will reduce the number of patients that come to you for those sort of conditions, because they're looking after themselves.

APM: You don't find, though, an increasing number of patients, of the population, they just want a simple cure. They want to come to you and say, "Dr. Bajekal, do what you have to do but fix me. I don't want to have to take responsibility for this."

Dr Nitu Bajekal: Yes, there is that attitude, but not ... It's because we like to think that, as well. I think we don't have the time for patients. We don't actually sit down and talk to them. They want to, they're just confused. They don't understand it. Somebody tells you to have a high-protein diet, somebody tells you to have a high-fat diet. It doesn't make sense. If you actually look at the heart disease and the number of people that are dying from heart disease, that kind of advice doesn't add up. It doesn't add up. We know instinctively what we are saying when you're telling somebody to have plant-based diet and whole food. You know it's right. You just know that it's hard. It's a tough job to achieve.

Then I look at you and say, "Can I have a tablet?" because you know it's tough. Nobody is there to take you, hold your hand through that journey. There is confusion out there in the public because our own governments don't tell you. They still put ... Canada is the only country that's come out now, taking dairy out as a food group, you know? Which is a great, great advance.

APM: Can I just go back on some questions that have been coming in while we've been talking?

Dr Nitu Bajekal: Of course.

APM: Somebody has asked is calcium from seaweed so much better than calcium from other sources, or presumably they mean from dairy sources?

Dr Nitu Bajekal: Yes it is, but I don't like to focus on any one, particular food. Yes, mushrooms, if you expose mushrooms to sunlight you'll get Vitamin D from them, but what is the best source of Vitamin D? Sunlight. 90% of your Vitamin D will come from sunlight. It's like that. With calcium, yes, you can get it from seaweed, you can get it from eating two or three dried figs, you get all your calcium for the whole day. Do you need to take a supplement? [crosstalk 00:56:40]

APM: Is seaweed contaminated with the estrogens you talked about earlier on, do you think?

Dr Nitu Bajekal: Not really, because again it's low down in the food chain. You have to understand that as it goes higher up in the food chain, everything gets multiplied. The seaweed will get eaten by the little fish, the little fish will get eaten by the bigger fish, and then the bigger fish, and then you will eat the fish, and it all accumulates in our body. That's what the problem is. The lower you eat in the food chain, even though there may be certain chemicals you still will ingest a very low, low, low dose.

APM: Could you comment about diet for women going through menopause? This question says she has loads of patients going through it and also, I've had a couple of questions about your opinion of HRT during menopause, as well.

Dr Nitu Bajekal: Yes. I can't stress this often enough. Whether you're looking for a diet for preventing cancer, whether you're looking for a diet to treat menopause, whether you're looking for a diet to treat endometriosis, whether you're looking for a diet to manage arthritis, Alzheimer's, anti-aging, it's the same, same diet. There is no mileage in anything else. It's the same thing. Whether you ... it's beans, lentils, pulses, vegetables, fruits, nuts, seeds, some plant milks, some things like tofu, and tempeh. And less oils. Oils are not your friend. Alcohol is not our friend. Cakes are not our friend. Animal proteins are not our friend. You eat those mindfully because you want to eat it. You want to indulge in it. Oils are inflammatory as are animal proteins, so are high-sugar foods. But eating a bunch of dates: no problem. One date contains the same amount of sugar as a box of strawberries, but a date has other things for you in it.

It's understanding that, so for menopause, yes. Please go onto my website. Loads of information on it but, again, it boils down to the same simple things. Eat estrogen-rich foods. Phytoestrogens, so porridge, flaxseed powder, cereals that are whole grain, proper cereals, chickpeas, hummus, soy beans, edamame beans, some soy milk, some oat milk.

APM: This is just for women, of course. Men can go on with steaks and like that.

Dr Nitu Bajekal: And men can also have all that. Men can have steaks, as well. Then you'll exchange it for prostate ... For men, lots of tomatoes. Very good for preventing prostate cancer, but as I said, I don't like to focus on one particular food, simply because you want to eat a range. You want to eat a rainbow color of things

every time you make that choice. Don't leave the vegetables and only eat the steak; eat the vegetables as well. I see that all the time with my male colleagues.

APM: I want to go back to vulvodynia because you mentioned that earlier on and you talked about how complex it could be. Ages ago, somebody sent in a question asking how do you treat it? What do you actually do?

Dr Nitu Bajekal: First of all, again, back to the basics. I take a detailed history. Once I'm certain that that's what they have, so often there's nothing to be seen. They have a burning sensation that can suddenly arrive, so much so that they can not even sit down. Sometimes they may need little cushions to sit down. They can actually pinpoint it to a particular surgery, they may pinpoint it to a certain traumatic experience, or they may pinpoint it to nothing. Very rarely it can be a trigger for cancer in the background, but very, very rare. Almost always these are young women who have these symptoms. Once I examine them, I examine them in such a way that I use a cotton bud first to see whether they're particularly tender in any one spot. There are two glands that are called vestibular glands just near the region of what is called the fourchette, the bottom bit of the opening of the vagina. It used to be known as vulval vestibulodynia, because vestibular glands will often get inflamed and can be very tender. That can be from a sexually transmitted infection, or just some chronic thrush and things.

Once you work out whether there is a problem, you then do swabs to make sure there is no infection and then you talk to patients. Once you've decided that they do have the condition, and you've examined them, you can offer them either cognitive behavioral therapy, where they actually understand that they have this issue and they will then seek help from that way. They can take tablets, doesn't always help, but just accepting that they have an issue, so-

APM: What tablets would you be giving them?

Dr Nitu Bajekal: Things like which would help for the nerve endings, so tricyclic antidepressants like Nortriptyline. I would start them off on a low dose and increase it. Usually, it just gives them enough time to get their heads around it, and then they find ways. Okay, so if I use just general measures. No soaps, no perfumed toiletries, no feminine wipes, no ... A lot of our sanitary wear contain a lot of chemicals. Our washing powders have a lot of chemicals, so I give them a whole list, which is on my website, on general vulval care that is applicable to women with eczema, women with Lichen sclerosus, women with vulvodynia. It doesn't matter. Everybody should try and follow those simple things, which would reduce the amount of toxic chemicals that have come into contact with your skin, because that itself can trigger symptoms.

Then tablets, sometimes acupuncture, very rarely neural blocks and things like that. Americans like that. Usually I'm able to manage my patients just by giving them the diagnosis and treating them with these general vulval care measures and tablets.

APM: We run a course with a chap called Stephen Sandler, who is a very experienced

obstetric osteopath. Just as a throwaway line in this course, he said that he had discovered, I can't remember how he discovered this but, and it sounds slightly bizarre, but actually ironing underwear was really good for preventing particularly UTI infections, but presumably some of the other things you've just been mentioning there. Washing under normal washing machine conditions these days doesn't get rid of bugs in underwear and actually ironing does.

Dr Nitu Bajekal: People often will use soaps, and quite strong washing powders, and bubble baths, because they feel that the vulva and vagina need to be cleaned. The truth is there are good bacteria there. You don't want to get rid of them and when you use feminine wipes and feminine toiletries, perfumed toiletries, you will get rid of the good bacteria and that leaves open ... Once the lactobacilli have gone, or the good bacteria have gone, what happens? You have the bugs that live in your back passage normally, E. coli, group B streptococcus, they come into the vagina, they come into the bladder, especially in menopausal women, because menopausal women have lack of estrogen, thin lining of the skin, and straightaway a break where the bugs can come in. It's really, really important to remember that the vagina and the vulva are all self cleaning. You just need to use warm water. Water and that's all. Maybe a non-soap-based wash, but you really don't need any soaps in that area.

APM: Okay. We're jostling around all over the place at the moment. We had a whole list of topics we were going to discuss, many of which you have mentioned. I'm going to have to go through some of these.

Dr Nitu Bajekal: Of course.

APM: Somebody has asked about your thoughts on the contraceptive pill as a causative factor in polycystic ovary syndrome.

Dr Nitu Bajekal: I'm a great advocate of the contraceptive pill. It's the single ... one of the ... probably the best breakthroughs for women in terms of freedom, independence, freedom from unwanted pregnancies, freedom from conditions like endometriosis, and polycystic ovarian syndrome, freedom from heavy periods, painful periods. The pill actually is designed to really be taken back-to-back. There does not need to be any withdrawal bleed with it. A woman can take it continuously like she would with the implant, or a progesterone tablet, or the Mirena coil.

The pill is not implicated in PCOS, in fact, the other way around. It helps to put your ovaries to bed, because you're already born with the number of eggs, so there's nothing that you can do to change it one way or the other. Polycystic ovarian syndrome is a lifestyle condition: it is dependent upon diet and exercise, and diet is the key, so you can be ... Half the woman with PCOS, polycystic ovarian syndrome, are overweight from eating the wrong foods, but the slim PCOS also have bad diets. You can be very slim, and have Diet Coke and crisps, and actually have polycystic ovaries. The pill is one of the medications that you would want to advocate to somebody who's not having regular periods, while they're getting onto the diet and lifestyle to change their condition, because it can actually be reversed through diet.

APM: While you were talking there, I was just running through the slides there. I brought one up, because essentially you've talked about the mechanisms and what might affect polycystic ovarian syndrome. What does it actually mean when you've got a polycystic ovary?

Dr Nitu Bajekal: You need two out of three criteria to say that somebody suffers from polycystic ovarian syndrome. Either you have to have clinical symptoms, which include things like not having periods, very irregular periods, so once every two months, once every three months, once every six months-

APM: Would both ovaries always be affected, or could it be just one?

Dr Nitu Bajekal: No, could be only just one ovary. Somebody may have clinical symptoms: acne, lack of sleep, anxiety, irregular periods, increased facial hair, loss of hair on the head, hair over the body. Pain is not a feature of polycystic ovaries, so it could be all this range of symptoms that I've just described, it could be one of any of those, then, if you do an ultrasound scan, once or both ovaries may show these ... like a pearl necklace arranged just under the ovary. A number of little cysts under the ovary that are between two and nine millimeters. Very small. They never grow to any size. They don't cause any pain. They're empty egg follicles that have not responded to the brain, because the hormones from the brain, FSH and LH, are telling the ovaries to wake up and do their job and they're not, or sometimes the ovaries themselves don't-

APM: What stops them responding?

Dr Nitu Bajekal: It's insulin resistance. That's one of the key factors. Imagine a door with a key and a lock, and normally the key has to fit into the lock to open the door, and that key is insulin, and the lock is the door to the cell. Sugar is floating around. You've had an apple, you've had fruit juice or whatever, and so this sugar has to enter the cell. Insulin helps to make the sugar go into the cell.

APM: So there's a direct correlation between PCOS and diabetes.

Dr Nitu Bajekal: Totally. Insulin resistance, really. What happens is when you eat fatty foods, so when you have a low-carb, high-fat diet, or you have lots of animal protein, that has a lot of fats, and it's saturated fats. Straightaway it goes and blocks the lock, and when it blocks the lock, insulin can't get in, and so insulin has to increase, and that is insulin resistance. Insulin resistance then becomes into polycystic ovarian syndrome, almost always in the overweight PCOS, but sometimes in the slim women who are suffering from polycystic ovarian syndrome as well. We know that diet and exercising, again, helps to reduce the risk of cancer, helps to reduce the risk of cancer once you've got it, but even with polycystic ovaries, it will help to normalize your hormones.

Clinical symptoms and an ultrasound diagnosis, or hormonal diagnosis, so FSH and LH levels produced by your brain that get reversed. So that is a laparoscopy, where we're looking at this typical heavy, white-looking ovaries, because they have these little cysts spread under them.

Actually, in 1935, Stein-Leventhal, what he did was, this group of doctors, they

took out a wedge of the ovary, and suddenly they found women started conceiving, and they didn't know why, but by actually traumatizing the ovary, by taking away, they found that these women with lots of hair and increased weight started ovulating naturally, and that's one of the treatments that we do use for polycystic ovaries for women who are not able to conceive, what we call ovarian drilling, where we dimple little holes in the ovary, and we don't know how it works, but it does tend to normalize the hormones in some way by restoring the normal hormonal balance. It's a triad of three things.

APM: This slide that you've brought up just here, it's actually quite an interesting slide. Can you just orientate us to what we're seeing there?

Dr Nitu Bajekal: Yes. This is the uterus; this is the womb. If you saw something sticking out, you'd think that was a fibroid, but this is a nice, normal-looking uterus. This is the fallopian tube. This is an ovary. Normally this ovary, once a month, will produce an egg. It doesn't have to be one from this ovary and one from that ovary, it could be from the same ovary every time-

APM: How much larger are those ovaries there than they would normally be?

Dr Nitu Bajekal: I would say that's about three times.

APM: Oh gosh.

Dr Nitu Bajekal: Of course, it depends on the age. If you're a very young girl, you'll have a tiny ovary. If you are menopausal, you'll have a very small ovary, almost hardly visible in a [AT roll 01:10:12], for example. This is a good-sized polycystic ovary. This is the fallopian tube. Normally, an egg gets released, it goes up the fallopian tube, and meets with the sperm in the tube, and then implantation occurs. This is the bowel, and this is all the yellow omental fat that we see, and the blue stuff that you can see there, right in the pouch of Douglas ... Can you see that over here? That's because we've just checked to fallopian tubes. This is a woman who's trying to conceive, and it shows that her fallopian tubes are open. It's one of the ways of testing. It's called a dye test if we do a laparoscopy.

APM: So that's not normal.

Dr Nitu Bajekal: No, that's not normal. Normally you won't find blue stuff in there. Royal blood, no.

APM: We've got a bit of time left, so let me run through some of these others.

Dr Nitu Bajekal: Of course.

APM: What are the issues that can arise from endometriosis? We've already covered that and then to-

Dr Nitu Bajekal: Infertility, especially, and pain are the two big features, and ovarian cancer is a slight increased risk in women who have endometriosis.

APM: And did you cover earlier on the role of HRT in dealing with endometriosis?

Dr Nitu Bajekal: HRT is mainly for menopause. Women shouldn't be scared of hormone replacement therapy. People are very scared about the risk of cancer, but actually we have a one in six chance of having a road traffic accident in going in a car. If somebody's quality of life is really impaired, they're not able to sit like I'm sitting with you, and every one minute I'm getting a hot flash, that's not a way of living, so in that situation, women will need help. Diet and lifestyle is great, but for some women, they can't do it or it's not enough, and they will need HRT. That can be in the form of a tablet, a patch, a gel. It could be an implant. It could be lots and lots of methods. It depends whether they've had a hysterectomy or not. We usually advise women to take HRT for between two to five years, not longer, but if a woman is advised, and they want to, then, like many of my 80 or 90-year-olds, they don't want to come off HRT. They're willing to take the small risk for the way they feel, and that's up to them.

APM: Should we have any concerns when we have a patient in our clinic who says they've been on HRT for longer than five years, because I know there have been-

Dr Nitu Bajekal: No, if she has thought about it, and that's what she wants to do, she's an adult, a thinking individual-

APM: But there were risks of increased, I think, breast cancer, and-

Dr Nitu Bajekal: Yes, there are risks, but as I said, when you compare the risks with eating the kind of foods that we eat versus HRT: nothing.

APM: Okay. This viewer says, "Sorry to go back slightly, but are we likely to get many patients with low-back pain, which is actually a referral from a -gyny problem, and are there particular problems, which do refer to the back?"

Dr Nitu Bajekal: Yes. Basically, if you know the nerve supply for this uterus, the supply comes from the sacrum, S2/3/4 and things. It's very common a woman has a prolapse, for example, the whole womb drops down. She may complain first time, saying, "You know, I'm actually having this backache," and actually, what she has is all the ligaments have got loose, and they have dropped, so a prolapse can be a symptom of backache. Endometriosis, because all the nerve supply. Just before a period, even if you're completely normal, women may often have low-back ache, and they're wondering why: "My uterus is in front, but I'm having low back pain," because it's referred pain. The pain is coming from the nerve supply. It could be endometriosis. It could be very large fibroids. It could be a prolapse. It could be scar tissue. Inflammation. Any of these conditions could be, and it's difficult-

APM: If it's a prolapse, for example, how are we going to distinguish that? What else might we be asking or looking for?

Dr Nitu Bajekal: She might say, "I can feel a lump down below. I feel quite unsupported. I'm not able to pass urine. If I pass urine, I feel I haven't completely emptied myself; I have to go back within a few minutes and there is still quite a lot of urine."

Those sort of questions may ... Not all women with prolapse need to be treated, it's just that they need to know about it, and maybe they have to just go and do some yoga and Pilates, or lose weight, because that, again, will help with improving the prolapse and the urinary symptoms.

APM: Is there a high-risk group for prolapse? I mean, presumably it gets worse as you get older.

Dr Nitu Bajekal: Yes. We know that women who have had very difficult vaginal deliveries, women who have had very large babies, as they approach the menopause, if there's a family history, if they're Caucasian, if they're very overweight, if they have got connective tissue disorders, they all are at increased risk of [inaudible 01:14:34], but you can have women who have 15 children, who will have their-

APM: There's always people who escape the statistical bell curve, aren't there?

We're going back to diet again here. What do you think about juicing as a way to get your natural food?

Dr Nitu Bajekal: I'm not a great fan of juicing because, again ... I have a very simple mantra: a whole-food, plant-based diet, if you look at any particular food, you say "Is it whole?" So if you're looking at water, if you're looking at broccoli, you're going to say, "Is that whole food?" Yes. "Is it plant-based?" Yes. So if you're looking at olive oil: is it whole food? No. Is it plant-based? Yes. Is the olive whole-food and plant-based? Yes. So when it comes to questions like juicing, you're throwing away the fiber, so if you can juice and have the fiber, then that's fine, but it's a good way of getting quite a lot of your nutrients into your body, but I don't like the idea of throwing away anything from ... If you can juice with the fiber, that's good.

The only tip I have for juicing, or for any smoothie that one drinks, you should sip it, and sip it over about half an hour, so have it at your desk and keep sipping it. Why? Because of the salivary amylase and things. You want the salivary digestion to start off. Why I don't like fruit juices is you can eat three apples. It'll take you a good half an hour to eat three apples. Try and drink a glass of apple juice: you can down it in five seconds, and that will up your sugar level. That is understanding, and that's why it's so important. Whole-food, plant-based. Don't fragment any foods.

APM: We haven't had a single person send in their name with their questions this evening, which we encourage them to do, because it puts a bit of color into the questioning, but I can understand this person, who hasn't given us their identity. It says, "Beans and pulses give me bad, painful gas. Is there any way to avoid it?"

Dr Nitu Bajekal: Yes. The reason you get bad, painful gas is because you're often combining it with animal proteins.

APM: Right. We go back to animals again.

Dr Nitu Bajekal: I am sorry, but that is it, and the reason I say that is if you look at my dog, my

dog has got a very short alimentary canal. Why? Because he or she is evolved to eat meat. It goes in from one end, comes out of the other end. Look at our gut. How long is our gut? Lots of squiggles, so it sits there. It's got no fiber to push it along. This person who has-

APM: Doesn't seem to affect the problem of gas with my two dogs, I'm afraid, because they're copious producers. They must be-

Dr Nitu Bajekal: Well, you might be giving them a lot of dry dog food, and dry dog food, sadly, has mainly soy, and corn, and all the things that dogs shouldn't really be eating.

APM: Right. Okay. Someone who works in a gym, and lots of the patients claim that they need protein for muscle growth-

Dr Nitu Bajekal: Yes, of course they need protein for muscle growth. It should all come from their greens. All from their plants. All from their beans. Simple as that. You can look at Serena Williams, Venus Williams. They're vegan. They're plant-based, completely. Lewis Hamilton, plant-based. You don't need to look far for ... and I certainly know that I'm probably stronger than most women, and I'm 55, nearly 56, and I can outrun and out-beat most women, and it's to do with my diet. I know it.

APM: Good. Someone has asked here about how foods cause an inflammatory process, because it is often stated as a fact, but they say they've not been able to find a mechanism by which it actually causes-

Dr Nitu Bajekal: It's to do with the ingredients. When you look at inflammatory foods like, back to animal protein, they have things like growth hormone, the vascular endothelial growth factors. These are all inflammatory factors. They inflame the inside ... and oils ... they all tend to inflame our arteries, our [inaudible 01:18:29], our tissues, and so that's how they cause it, but of course there's much more mechanism, and there's plenty of ... I can send whoever is interested the research behind it, but we know that these are-

APM: If you can do that easily, and you can give it to us, we can put it up on the site for everybody, so that would be lovely.

Dr Nitu Bajekal: But as I said, the one site that is really worth looking into ... there are several. Bill Clinton's cardiologist, Dean Ornish, he's done a lot of very, very good work in reversing heart disease through diet and lifestyle. There's Caldwell Esselstyn, who is a surgeon who has reversed heart disease now for the last 50 years, and has worked hugely, and has got an amazing, amazing book that he's written, as well as work that he's done. People who are interested can actually find the scientific research papers, but if you want to do nothing else, then just read that one book. Half the book is just all the research from Harvard, from Cornell, and these are all proper papers that are written in peer-reviewed ... the Lancet, and JAMA, and things like that.

APM: [Farron 01:19:41] has just sent in a question asking again about the relationship between the pill and breast cancer, but you said the risk still exists, you said.

Dr Nitu Bajekal: There's a difference between the pill and HRT.

APM: Oh sorry, yes.

Dr Nitu Bajekal: The combined oral contraceptive pill, if taken for more than 12 years, increases one's risk of breast cancer very, very minimally. Once you stop the pill, your risk of getting the breast cancer goes back to normal, while with taking the pill for five years halves one's risk of ovarian cancer and womb cancer for everybody. So any woman who takes the pill for at least five years, and they should be encouraged to take it for five years, it halves the risk of ovarian cancer and womb cancer, and that benefit lasts even after you stop the pill. The breast cancer risk goes, but the reduced risk of ovarian and endometrial cancer remains after stopping the pill. With HRT, there is the five extra patients for 1,000 patients. So now, currently, the risk of breast cancer is between one in eight to one in 12, in the Western world. In mainland China, it was one in 100,000, so you just have to put together what was missing in their lifestyle compared to what is in our lifestyle. That's what I would like people to go away and research the China study.

APM: I'd like to drag us back to osteoporosis for a minute if I may, and we've had a question about osteoporosis as well. Again, a question about diet, which we'll come back to. Clearly, for people who are engaged in our particular therapy, which involves mucking around with joints, and muscles, and so on, the risk of osteoporosis has to be taken into account. What are the risk factors we should be considering?

Dr Nitu Bajekal: Smoking, high animal protein diet, high-fat diet, obesity, immobilization, not getting enough sunlight, not being active, and then prolonged steroids, so people who are on oral steroids for a long period of time. These are all, I think, and then Warfarin also causes some amount of osteoporosis.

APM: In women, am I right in thinking that the onsets of menarche and menopause also are indicative of a possible heightened risk?

Dr Nitu Bajekal: Menarche, no, but menopause, yes. That's the trigger. So if you can actually make sure that your diet is really optimal, then there's no reason why, if you do little exercises, which include weight-bearing. Weight-bearing is really important, and looking after your muscles. Sarcopenia, I don't know if you've heard about sarcopenia. It's muscle loss. We know that osteoporosis, on its own, is not just as important together with loss of muscle, makes people more prone to falling, to hip fractures, and that is why it's so important to do weight training. Your legs actually carry your weight, so your legs tend to be all right, but your arms, it's quite important not to complain about doing daily chores, or bringing your shopping in, anything like that. Anything that allows you to carry weights improves your bone strength. The bone matrix is really important. What you don't want is osteoporosis to govern your life, because one in three women will die from a hip fracture, and that's osteoporotic-related.

APM: The question particularly asked: where there any supplements that you recommend in addition to the good diet that you've already recommended.

Dr Nitu Bajekal: All people, whether you eat meat, or you're a pescetarian, or you have dairy ... A word of advice. People who only have dairy, who are lacto-vegetarians, actually increase their risk of breast cancer, because they are then loading their diet more with, in exchange for meat, they then tend to have more of dairy. All people, irrespective of their diet, should have, if they don't have enough sunlight, should have vitamin D in their diet, in their supplement, so taking vitamin D three, four times a week, especially in the winter months, and vitamin B12, because vitamin B12 only comes through the algae and all that, and it's difficult for all of us to get enough of vitamin B12. Everybody in the standard British diet should have vitamin B12 supplement and vitamin D, unless you are very lucky to be able to have lots of sunlight, lots of holidays.

APM: I'm being harried to answer some of these questions, and new ones keep coming in. We've got a few minutes left, so if we can deal with some quickly.

What about the use of tampons? Will the body see those as a foreign body to be attacked, and therefore cause potential health issues? That's from Winnie. Also, are they treated in a way which would destroy helpful bacteria that you mentioned earlier on?

Dr Nitu Bajekal: It is important to know that most sanitary wear, including tampons, are chemical laden. There are lots of options now, which are biodegradable and very user-friendly, where they don't have the same chemicals, but there's certainly one that a lot of my patients seem to use, called the Mooncup, which is a completely inert substance that you insert, and then you wash every time. Not everybody likes it, but it certainly ... Tampons, I think, can be an issue because of the fact that they are very heavily chemically treated.

APM: Do you recommend people stop using them where they can?

Dr Nitu Bajekal: If they can switch over to different types of tampons, where they can go to the more natural, biodegradable type, then yes. The Mooncup, I would definitely recommend. It's user-friendly, it's environmentally-friendly as well, so yes, definitely.

APM: I hope that answers Winnie's question.

What do you recommend for post-menopausal women still having hot flushes after the age of 65 or 70?

Dr Nitu Bajekal: I [inaudible 01:25:28] them, never been on HRT, then it's not a good idea to start them on HRT after the age of 60, because that increases their risk of Alzheimer's ever so slightly. If you're already on HRT, and you don't want to come off it, then that's fine, but you have to find out why somebody is having hot flashes. Is it because they are overweight? Is it because they have got some other medical conditions like diabetes and hypertension? They may be on drugs that are giving them those side effects. One needs to explore why somebody's having hot flashes, and then really giving them general advice: wearing loose clothing, avoiding central heating, having cool showers, avoiding iPads and things just before you go to bed. All these things can actually help, but if somebody's still having hot flashes, and they've never been on HRT, and it's a

new symptom, it has to be investigated.

APM: Okay. How long would you suggest the injection for heavy periods and low iron, if all other methods have been tried, I've read that out as it came in to me, but-

Dr Nitu Bajekal: We don't recommend injections for iron, of iron tablets, of iron infusions for women with heavy periods. What you really want to do is close the tap. If the tap is open, any amount of dates, and cashew nuts, and greens that you eat, or iron infusions, is not going to stop your heavy periods. You've got to sort out. If it's a easy operation that I can do, if there's a fibroid sitting in the cavity, I'll take it away. If it means that they can go on the pill, then that's what they need to do, and they can take the pill back-to-back. If it means that they have to have the lining of the womb removed to treat the heavy periods, because they've finished their family. Or the coil, Mirena coil. It depends. The heavy periods have to be treated, rather than trying to keep trying to treat by giving them medication. Yes, they might, in the interim, need iron tablets or iron injections, but it shouldn't be long-term. Really, people overlook all the time that heavy periods can be easily treated, easily managed by very safe techniques.

APM: This question's been sitting here for a while, but I wanted to save it for the end, because I'm going to read it out as it came in. This is wonderful, listening to the reinforcement of this information with all this passion expressed as well. The question is: is there a particular link to phytoestrogens in women, in women's health, and how do you gauge the level any individual should take on? Where are the highest food values?

Dr Nitu Bajekal: Again, back onto my website, but the highest food values. Phytoestrogens, you can't take too much of it, but they are there in all beans, pretty much, a lot of lentils, kidney beans, chickpeas, edamame beans, they all contain natural phytoestrogens. Most berries will have some amount. Flaxseed is a great one. There are different types of phytoestrogens: lignans, and ... We won't go into the whole group, but again, on my website you will find that all those have been grouped into, and one can read about them, but really, if you have a varied diet, you don't have to worry about focusing on one particular thing. I wouldn't advise somebody to drink two gallons of soy milk. Instead, have a range of foods, and you will get everything that you need.

APM: Mike has sent in two questions, and I'm only going to ask one of them, because we are completely out of time. Is the research you talked about into the pill, the combined pill, or just estrogen? Does it matter, which pill?

Dr Nitu Bajekal: Yes. The combined oral contraceptive pill is the one that all the research has been done. It's the one that reduces the risk of ovarian cancer and endometrial cancer. The progesterone-only pill doesn't have that same research. We know that progesterone does have that slight increase. It's the main reason that breast problems, breast lumps, or breast cancer is increased, is from the progesterone component of hormone replacement, or of the pill. One is cautious with that in certain patients, but in most women, they can take it quite safely, and one shouldn't be scared to prescribe it in patients who really need it.

APM: This is the final thing. You talked briefly, earlier on, about Women for Women's Health, which is something you've set up. Could you give us a quick burst on who could use that, and how we-

Dr Nitu Bajekal: There are two ways. One is where I come to places like this and talk about what I feel really passionate about. I go to schools. I run workshops. We have a workshop, for example, like a half a day workshop where I would teach children the sort of foods they should eat, because many of them come to school without breakfast. I make them touch things like: what does a sweet potato look like? What does coriander look like? So we have a class on nutrition, then we have a class on yoga for painful periods, for example, then we may have mindfulness for stress of exams, and interspersed with that, I would do medical talks on ... I have a whole team that works with me, who are interested. We do it pro bono. We don't charge. We do contraception, sexually transmitted infections. If it's the menopause theme, we do all menopause things for women. If it's for doctors, I would do a whole theme on various cancers, and nutrition quizzes. We do workshops. I have a Facebook site. We are on Instagram. I am always approachable. Anybody asks me a question, I'm very happy to engage with them.

APM: Fantastic. Nitu, we've run overtime by three or four minutes now. As always, I'm staggered by how quickly these interviews flash past, despite my earlier qualms, because you always think, "Do we have enough to talk about?"

Dr Nitu Bajekal: We haven't even touched on, probably 90% of all the kind of conditions that you will see, and I should be talking to, but-

APM: Well, maybe we'll ask you to come back again later. It's-

Dr Nitu Bajekal: I'd be very happy to come back, and we won't talk about diet at all then, and then maybe we can talk about the medical stuff.

APM: It's been fascinating, and it's been doubly fascinating as you talk about it with such great passion as well, which is exactly what we want to hear. What you said chimes with, of course, what a lot of us want to believe, which you said is an interesting concept-

Dr Nitu Bajekal: Yes, but it is a hard journey, and once you acknowledge that, that it's a journey and that it's not easy, then life becomes very simple.

APM: Well, can I just say thank you very much for a wonderful talk.

Dr Nitu Bajekal: You're welcome.

APM: Thank you. It's been a great pleasure having you on.