

# Exercises for the Pregnant Patient

*With Zoë Mundell* 7<sup>th</sup> April 2020

# **TRANSCRIPT**

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### Steven:

So today as you can see from the slide behind me, we're going to be looking at some ways you can help care for your pregnant patients. And I'm joined by Zoe Mundell. Zoe, great to have you with us.

# Zoe:

Hi. Thank you very much.

### Steven:

Zoe, I'm, if I'm right in saying you're the founder of new body osteopathy down in Canary Wharf. Is that right? You are a pilates instructor, you're a personal trainer, you're a sports therapist and of course you are an osteopath. You've got a particular interest in pre and postpartum and pediatric care. You've done a diploma at the osteopathic center for children. So you're pretty good at this I imagine. Okay. Well we did some pilates exercises for general health that we could share with people last week or week before via telehealth consultations, and I think what we're aiming to get today is some ideas about how we can advise our pregnant patients on looking after various conditions that they present with. And this is going to be based on what, on your pilates experience?

A bit of both really based on pilates and obviously just looking after your patients as they come in with back pain in clinic. Unfortunately back pain in pregnancy is common but it shouldn't be perceived in any way as normal and there's no reason why pregnant women should not be treated in, you know, in good healthy care setting and should go on throughout their pregnancy and discomfort. It can all be treated.

### Steven:

What sort of conditions do you sort of regularly see your pregnant patients for then?

### Zoe:

I think the most common I see is SPD or PSD or however people choose to word it. That's probably the most common and just general lower backache. You know, we'll see. And then after pregnancy will be a lot of De Quervain's, I see a lot of de Quervain's in pregnant women.

### Steven:

I confess to not having your experience in dealing with pregnancy and pediatrics, but I've always found that pubic symphysis problems quite difficult to get a successful outcome with those.

### Zoe:

I'm pleased to say definitely from my training from the OCC, I have managed to resolve, there's only two patients. I haven't been able to help with that in quite a short space of time actually. The two that didn't respond to treatment, one was down to how late in the pregnancy the pain started, and it was very much from the weight and position of the baby having a very turned out baby with a very large head circumference. And the second was, due to the mother continuing to do certain yoga exercises, which we'd actually advised against. But in every other scenario we've actually managed to pretty much resolve it or manage it to a a very good level, nd I think that's down to a mix of manual therapy and also, upport taping, nd care advice and some of the exercises that hopefully I'll tell you today.

# Steven:

It's always a question that arises in clinic, isn't it? Should we do pilates or should we do yoga? I would say patients will ask us that. And and I don't know about you. My answer is always, well you know, as long as you get good instruction either is likely to be really good for you, but it must be a bit frustrating when you say to somebody, look, this yoga isn't going to be, isn't going to help you while you're pregnant. So stop it and they don't.

# Zoe:

I think it's, I'd never take away something from a patient without giving them an alternative. I've worked for years with many, many sports people and my background is much more in sports. I've kind of diverted now into working more with pregnant women and children, but it's always key when you're working with anyone that's exercise-based or has, you know, a real fondness for sports and exercise to not take away something without replacing it. So alternatives are definitely key. I think yoga is, is brilliant, it definitely has a place. I would say as we talk later, about SPD that there are certain movements that should be avoided, which

can actually exacerbate symptoms and that's really the key is to know which ones are going to aggravate symptoms and which ones may help it.

### Steven:

Well then let's talk about SPD, pubic symphysis dysfunction, symphysis pubic pubis, dysfunction, whichever we want to call it. What's your theory behind treating that?

### Zoe:

So the main thing that I see with patients is there's either going to be one of sacroiliac joints is usually problematic in the fact that it's too mobile or one is really restricted. So it depends which side you look at it. One, I would find would be quite restrictive in it's movement and the other side therefore is moving far more and almost creating a grinding effect onto the pubis. So from a treatment point of view, I always look for balance between the sacroiliac joints and matching the movement. So you may need to mobilize one side or stabilize the other. Usually I find the side that is most problematic or most painful is actually the side that is not the problem as it were. It's often the opposite sacroiliac joint that is very restricted if you increase the mobility on that side and then stabilize as a whole, often these things calm down very, very quickly.

### Steven:

It'A not easy to stabilise a sacroiliac joint is it?

# Zoe:

It's not. I intend to use a combination of support taping, which I know has quite, limited efficacy when people have looked at studies. But I found in every case when I've stabilised the lumbars and the sacroiliac joints, support tape has been really really effective.

### Steven:

I want to go back there. You said limited efficacy and it's not actually limited efficacy its limited research and evidence, isn't it? Yeah. And actually, what you're saying is that as so many people will say, well bugger the research, it seems to work.

### Zoe:

Absolutely. Absolutely. And providing their skin isn't irritated by it, which you should always give advice on,ou know, I'll say to my patients, well let's try this. If you find that there's no relief after a few days, obviously then remove it. Of course if you get any itching or stinging, remove it. But,anecdotally my patients will always come back and say it was really, really helpful. Of course, they can use support belts as well. I find they tend to irritate patients a bit more, the pelvic girdle belts, but they are an option and some people found that to be useful.

# Steven:

We sort of tape do you use out of curiosity?

I use anything I can get my hands on. The one I used recently is Livo tape, I just get on Amazon. That's just as good as the other sports tape and some of them can be so sticky. It's quite painful to get them off. I found this is quite good balance between the two.

Steven:

So are you talking about sports tape or the K tape varieties?

Zoe:

K tape varieties.

### Steven:

Okay, so we're not talking. Oh God, the rigid sports tape, Leukotape no. Okay. we'l we're not, we're not going to have a demonstration of taping here at the moment. We're, we're looking more at the exercise side of things, aren't we? So where, where do the exercises come into? What are you hoping to?

### Zoe:

But what I look at with patients, obviously we're going to have a big difference in their posture, as the lady gets pregnant or we look down the plumb lines from the shoulder, elbow, hip and knee to the the malleolus. You're going to see a forward shift of the pelvis and the knees which is taking the body again greatly out of alignment. We'll see. And an anterior tilt of the pelvis and you're going to be looking at shortening and tightening of the, psoas muscles there's going to be external rotation of the femur and the gluteals will therefore, shorten and tighten because of the expanding pelvis and a widening waddling of the gate. And that anterior tilt of the pelvis is also going to create a shortening and tightening and extra strain on the lumber erector spinae. So when we're looking at exercise for pregnant women, I think it's really important to consider all those postural changes.

# Zoe:

But also when we're giving exercises for pregnant women, we're also looking, often they're doing it because they want to stay in some kind of shape for pregnancy. They want to maintain the figures that they've worked so many years for. But I think it's really important to advise women when we're giving them exercises in pregnancy, the importance of becoming fit and healthy for their pregnancy, becoming fit and healthy for the birth of their baby and to accommodate for all these changes that their bodies are going through. And so one of the things to look at posture and then two main outcomes I want to look at is improving mobility. So they've got a healthy mobile spine but also stability. And the great thing about the pregnancy exercises in pilates or when you're giving them to patients, is they're pretty much the same as what you'd give patients who need back care exercises and core strength exercises. So there's a real clear parallel between them. The patients that maybe have a bad back, maybe have slipped disc, mhey really are quite unbalanced with that.

# Steven:

Okay. I've said we weren't going to talk about sports taping, but Lisa has asked how you use sports supports tape for SIJ's?

So I would bring my patients into a standing neutral position. So that their feet are kind of parallel to whatever distance is comfortable with them in pregnancy, I would get them to forward fold over the plinth being supported upright by cushions, so they're forward flexed and then I would tape across tI joints horizontally across the SI joints and then slightly higher up into the lumbar and then vertically down past the SI doing. So you're creating a hashtag. But I do that when they're in flexion because usually that's a position if it's a bad back that causes the most discomfort.

# Steven:

So you're taping right across both SI joints effectively. You're doing a bilateral taping.

# Zoe:

Absolutely. Once I've mobilized and treated the area that I wanted to treat yeah.

### Steven:

Imogen has sent in a comment, remind them it is zinc oxide tape. I couldn't bring the name to mind a minute earlier, but that's not what we're talking about. We're talking about K tape or any of the other varieties.

# Zoe:

I put it on about 50% flexibility then put it on maximum stretch back off for about 50% and then tape down. So when they stand up, it almost looks like their back is a bit wrinkled. Then they have that flexibility when they fold forwards.

### Steven:

So in terms of your postural exercises and stuff like that, I mean, how much have you been able to do through telehealth appointments at any stage? Not necessarily just through coronavirus. And have you done anything by video links and so on?

# Zoe:

Absolutely. I think, I mean I'm happy to go through some exercises with us all today. But definitely yes, all the exercises that I will advise today and for actually I don't work for them. I'm nothing to do with the program. But I mentioned to you earlier, I often use 'we have my patient', which I find is a great program. The reason for that is if you're doing telehealth, you can share the screen, you can show people that exercise program and talk them through it. But also you can send those exercises to patients. They are so clear that it's clear advice how to do the exercise. You can edit the information if you want to make it more specific to your patient or put in any caveats. You can, they can watch a little YouTube video of every single exercise and it's really clear and sensible to do so I definitely recommend that, especially if you're working in a team like I am, it means that all of our therapists, our osteopathic giving, you know, similar advice gives you continuity to your patients.

### Steven:

Well actually thanks for that because we've, I had a discussion with Tim, the champion who runs 'we have my patient' the other day, they do a three month free trial I believe. And certainly for members of the Academy of physical medicine, they're doing a free month free

trial and then a 10% discount on the program. We don't get any kickback from that, but it's just something that they've set up for us, which is really useful. But I thought actually we might get him or one of his team on one of these lunchtime broadcast is to demonstrate what the program offers. And again, I don't want to be seen as a sales vehicle for anything, ut it would be nice to just get a product review, or want of a better term.

# Zoe:

I think it's really excellent. The other thing that I think is really helpful to do with your patients rather than just writing things down for them is if you get them to video on their phones, so obviously you've not got any crossover of sending pictures of anybody, you can get them to either video you doing an exercise during their session or video them on their own phone during the exercise and then send that to them. Because with the best of will, you'll write something down and later on it will morph into something quite unusual.

# Steven:

Yeah. and it is quite difficult to describe in writing what you're supposed to do in an exercise, isn't it? I mean, but more importantly perhaps to describe what you shouldn't do. A couple of questions for you. Pip has said the hamstrings tighten too in pregnancy, which then also pull on the ischial tuberosities so it's a vicious cycle. Do you find that?

# Zoe:

Absolutely. Yeah. I think the whole thing is to keep a mobile spine and a mobile pelvis throughout. And I will always start with my pregnant ladies with pelvic floor exercises and I think that it's something that we often can find is breezed across as an advice. In some cases. And I think that the pelvic floor exercises are so important, but most important is to tell the patients why they need to do the pelvic floor exercise. And of course, we know in after pregnancy there's a risk to the pelvic floor weakening and that you'll have stress incontinence possibly after childbirth, which is one of the reasons why a lot of people that are advised to do the pelvic floor exercises. But also I think it's really important to know what happens during birth to that pelvic floor.

# Zoe:

And if it's okay, I'll kind of explain that. When the baby first goes into the pelvis, it'll flex its head inwards it starts off looking if it's in the ideal birth position, the baby's on your left hand side, with its back facing slightly outwards and it's looking at your right hip If it's in its ideal birth position, the baby will then flex his head, so tucks its chin all the way to its chest and then will rotate as it travels down into the pelvis. What happens then is the coccyx moves back slightly and it creates a kind of sling effect. So like a guttering of the pelvic floor. Now that's really important because that allows the transit of the baby's head forwards. And if you have a nice firm pelvic floor, what should happen ideally is the baby's head can use that as a fulcrum to turn as part of the process of its journey out.

# Zoe:

If there's a weak and lax pelvic floor, that's much harder to do and it's much harder for the baby's head to turn. And in that case, quite often forceps may be required as part of the delivery. So having a nice strong pelvic floocan very much help in the turning of the baby's head. But also if you have strength in your muscles, you can not only have the ability to contract them, but also the ability for you then to relax them. And that's really important for

the next part of labor because between contractions it's really important that the mother can not only contract and push and help the delivery of the baby, but can also relax when those times are not required to push. And that ability to be able to relax your pelvic floor will help somewhat in the labor, but also may prevent the need for tears and episiotomies because there's much more control over the pelvis. So I think if mums have a bit of an idea that it's not only about stress incontinence afterwards, which has huge effects, you know, but also will help them to have a stronger and healthier delivery. And also it's the base of our core. So it's going to give them much more strength through their whole core and to regain their figures after pregnancy as well.

# Steven:

I'm always just constantly amazed at how much there is to look forward to in pregnancy, why do people do it. Can I just take you back there though? You said the baby's going to use the pelvic floor as a fulcrum in order to turn which, how, what's, where's the fulcrum? Which bit?

### Zoe:

So as a contact point, so as the baby flexes, it'll come down into the pelvis further and at that point it has to turn against something in order to be able to carry on its journey out. So it allows that point of contact for them to pivot.

### Steven:

Robin has asked us what is perhaps a predictable question. Are there any weeks during pregnancy where you would avoid treatment with movement or manual therapy? He's always avoided age 12 and 16 weeks only because they're common miscarriage weeks. And while he doesn't think there's any risk from gentle treatment, he's keen to avoid any perception that he might be the cause of anything that goes wrong.

# Zoe:

I think that's an important conversation to have with the patients. I discuss that with my patients personally. I treat all the way through. I modify what kind of treatments I do at those times and I discuss that with the patients, to explain the risks or the perceived risk at that time. Umnd we have that conversation between myself and the patient, but I treat all the way through unless my patients have any concerns about that and I'll be very, you know, very, very clear that they can at any point can stop treatment. And I always, as I'm sure we all do discuss, are they comfortable during the treatment? If there's any discomfort at any point to stop, if they feel uncomfortable we stop, and if they would prefer to miss those weeks during treatments, then that can be an option also.

### Steven:

Yeah. I'm not actually aware of any osteopath, chiropractor or physio who has been taken to court or professional conduct committee because they were treating during those vulnerable weeks to be honest. And I think the, statistics show don't they, that actually those are common weeks for miscarriage and you'd have to be working quite hard to cause that miscarriage in our position.

# Okay.

# Steven:

Charlotte has asked a question about shoulder dystocia. She's saying is there a risk, a greater risk of shoulder dystocia if you have a very strong pelvic floor and shoulder dystocia of course is a very, very severe and dangerous condition for the baby because it interrupts the birth process, doesn't it?

### Zoe:

Absolutely, I don't know if there is any research to actually verify that. What I think is really important and I'd like to talk through some pelvic floor exercises if I may, is umo I know for example, with certain people, I think it was, there's some research once, I don't know the exact paper with runners who had incredibly strong pelvic floors and that can make things more difficult in pregnancy. But I will say that the pelvic floor has become taught, but the patient hasn't necessarily gained control over those muscles in the sense that if you're using them for exercise, o doing specific pelvic floor exercises, the exercises should be prescribed as much about contraction as being able to relax that muscle, which is very different to just having something that's very tight, and unable to control.

### Steven:

I think that's the cue for you to start demonstrating some things isn't it?

# Zoe:

So the first one we'll actually talk through and then I'll, I recommend some positions because I will be on my hands and my bottom in the air the whole time. So you can do a pelvic floor exercise in any position. You can be sitting, you can be standing. But there are two specific positions that if it's hard to find,or with new patients, often they're not that aware of whether they're doing it right or wrong, and in some ways, conversely, it does get easier as they get more pregnant because the pressure downwards gives them something to feel up against. Uthe two positions, I'll do the positions afterwards, but I'll just explain the exercises. Obviously men also have pelvic floors as we all know, but often patients won't know that. And not only can this exercise be good in pregnancy, it's really good post pregnancy.

### Zoe:

If people have had episiotomies, if they have had bladder prolapses, uterine prolapses, even bowel prolapses and can be important for patients, for male patients as well for various reasons to do with things like that. So when we're looking at the pelvic floor, we're looking at pulling in from the vagina. So pulling up and inwards but also initially is if you're trying to stop passing water is a good way to explain it to a patient. And also if you are trying to stop yourself from passing wind. I was about to say beyond that, we're not wanting just to squeeze the buttocks.

### Steven:

I j want to interrupt you. There's been a couple of shows in the past where I've mentioned Adam Kay former obstetrician who wrote the book 'This is going to hurt' and he describes it as sitting in a bath full of eels and trying not to let them get in.

Absolutely. The midwife I had in training said exactly that. Or even imagine you're pulling up a raisin with those muscles. You can have any idea that you want to, but that's exactly that, but you're not wanting to hugely squeeze your buttocks. Okay? You're wanting to use the sphincters as more than the buttock muscles once you're pulled up from trying to stop yourself passing water. Secondly, stopping yourself, passing wind, you then want to pull everything up a little bit tighter inside beyond that. So initially they're three points that you're really trying to work on and then allowing those muscles to just drop and fully release. Now thats your basic exercise to begin with pulling in from those three points. So the front, the back and everything that little bit firmer holding that muscle, there not holding the breath. And then releasing.

### Zoe:

And we want to do that in sets of about 10 at a time. Now the key important thing for pregnant women is to do this regularly, regularly, regularly throughout the day. So it's really, really good idea to try and get them to associate it to a daily activity. And I often try and use the time, which is, especially if mums have toddlers because they're constantly interrupted, is after they've been to the toilet. So once they've voided their bladder, so they're not confusing when to stop tightening their bladder muscles with needing to pass urine. But after, when an empty bladder, they do 10 repetitions every single time they go to the toilet because that's obviously something they're going to do daily, other people suggest it when they sit down to eat their dinner.

# Steven:

How long do they have to hold the exercises for, you said tense the muscles?

# Zoe:

I would hold the contraction initially for about 3 seconds, then drop and release. That would be the first exercise. Now, once you've got control of that, which can take quite a while, so a lot of people in the beginning don't really know if they're doing it right. I know when I first tried, the exercise, I kind of wasn't sure if it was my pelvic floor I was pulling in or wasn't quite aware of it. But once you build that general strength, you then want to work beyond that. And this is where I think things get lost a little bit so it doesn't just stop there. You can work in three other different ways. The first one is to imagine your pelvis is like an elevator and you're going up to kind of three floors. So you pull in a little bit, you could say 20% you try and pull a little harder to go to the second floor, 40% you try and go a little bit higher, pulling right in until you come to the top floor.

# Zoe:

And then once you're there and you can hold it at that intensity and right up to the top, then you just drop the elevator down to the cellar. And that's a really nice exercise to be able to gain control over that muscle and about how much you incrementally contract it. So that would be the next phase of exercises that I'd give to my patients. And then after that I'd reverse that. So then next set of exercises would be the opposite they pull all the way up maximum contraction and then can they control going down to level two, down to level one down to the basement, pull back up again.

The final exercise I'd give, and I've found this is very good for people often post-birth for episiotomies if they've had scarring or I've seen women with various pains in certain parts of the bladder area or the pelvic floor, and I do this a lot in pilates group classes, and that's to picture your pelvic floor in your head as a Union Jack, the flag. So you can think about the cross, the red cross of the flag first and think about pulling your pelvic floor from your tailbone to your pubic bone at the front and kind of zipping up that part of your muscles. So pulling and drawing those two points together. And then looking across at your sit bones either side and then again closing in or like drawing the curtain of those muscles that way. So you're pulling laterally across,

# Steven:

I'm trying to do this as you're talking and I'm finding it quite tricky.

### Zoe:

I can see your eyebrows. And then finally which is just a little bit more complicated is choosing two diagonal points. So you might choose your right buttock, visualize your right buttock and your left hip and kind of drawing diagonally across the same the opposite way. I often find that people have really good control where they can visualize or feel certain parts but they have to really work on other areas. And that can be quite common after somebody has had surgery or episiotomies or such in that area and it can really help stop other problems. And the two positions that I suggest where I'll just demonstrate. One of them is to be on your knees and elbows. And of course if you want to, and that's not comfortable in pregnancy, you can prop yourself onto a cushion. For some reason in this position, I think its because you are relaxing your pelvis, your muscles, if you like are flared, they're very much relaxed. You seem to gain immediately more awareness of those muscles in the uterus, sorry the pelvic floor. And the other position that was recommended by a midwife I work with as well is to actually lie on your back with the feet up against a wall. Again, allowing all of your muscles to relax, is a really good position to kind of focus on the pelvic floor. But it can of course be done in any position.

### Steven:

Okay, so we're going to do 10 repetitions of these every time we've been to the loo. So I imagine in pregnancy that could be regularly, quite frequently during the day and you start them off straight away you said, right? Right from the outset of pregnancy.

# Zoe:

I try and get people engaged in it quite early on. The reason being, new mums will either be really enthusiastic about it or won't really pay much attention because at that point it certainly it may just be the women that I have worked with that tend to be quite active, they go to the gym lot, they do a lot of stuff and at this point, their bodies haven't changed too much so sometimes they don't want to take it on board that much, but it's a couple of weeks down the line I can then follow up, have you done your exercise, where are you at with your exercise and make it part of their pregnancy and full part their pregnancy and then they tend to engage a lot more. Sometimes they don't engage until their normal daily routine has been impacted. When they can no longer do situps, mnd now they want exercise thats going to help engage their stomach.

### Steven:

I would have thought the threat of the things that can happen, you don't exercise your pelvic floor would be enough to get them started straight away. Imogen has sent in a comment that when she was training, they were taught not to do anything with patients before the 14th week of pregnancy because of the risk of litigation. I kind of feel that we're a bit too cautious sometimes, aren't we? And patients are still going to the gym. There's nothing that we're going to do that you've described, which is going to have an adverse effect. I would have thought.

### Zoe:

Absolutely. I think there's absolutely no reason at all why the pelvic floor exercises can't be given. There's no way they could have caused any damage. So I would 100% give them and I'll start them off straight away with those. I'll start them off with some pelvic stability and some spinal mobility exercises as well.

### Steven:

Ah, Bob Allen has sent in a very useful comment. He says that he's always struggled to describe pelvic floor exercises and this is the best you've heard so far. Do you have this written down anywhere? Well of course the transcript for this will go up in a day or two's time ,on our recordings page. So Bob, you can look at the transcript there and take out what you need from that. Actually when you talk about 'we have my patient', have they got pelvic floor exercises specifically in there?

# Zoe:

They, do, they have quite a few. They have them sitting on a Swiss ball, they have them sitting on a chair, they have them lying on your back, and one they have I think just explains trying to find your pelvic floor, trying to locate your pelvic floor. I can't remember if the exact text in it, but I know there's one that explains how to find it and then there's exercises about actually training it.

# Steven:

Okay Katie has sent in a question about treating pregnant women who are hyper mobile, if you've got thoughts on that or is that something for a separate day?

# Zoe:

No, I absolutely. So I tend to find people, especially people that come in with often low back pain or a SPD or hyper mobile and I find that it's definitely something to work on and that's where the stability exercises will come into play. So I have a couple of mobility exercises ones I'm happy to show you in a couple of stability exercises. For those patients stabilizing exercises are really, really important. The more strength they have over their muscles, the better. And the last thing they need is more stretching.

### Steven:

Right. Of course. Did you want to do something specifically for SPD as well while we're here?

I can do, with SPD, exercises we want to, again, they all kind of come together because we want to give them stability, pelvic stability and some strength. One thing I think, I mean if I might just say on SPD really, really important is actually how people turn over. And especially from our patients points of view in clinic, anging their position on the plinth can be really painful for patients. And there's a couple of ways that you can do that that will really limits their pain when you're treating them, but help them when they're turning over in bed. So I'll start with those if that's okay. So some of this may be really obvious, but not always. So when patients are lying down initially in terms of getting onto the bed, imagine I'm sitting on my plinth

# Zoe:

It's really important that you have their legs dangling over the side and then you would lean them over and ask them to bring their feet onto the bed. So with our patients, we always have nice cushions of course for their head. One underneath their stomach, underneath their bump, and then another between their knees. Or you can often use the same one if it's a nice big pillow. So when patients turn over with PSD, it's really important that the pelvis stays level and the SI joints stay as level as possible. So the first technique very simply is to imagine your knees and ankles and hips are literally pincered together. So what we don't want is the hips sliding back and there being a gap between the knees here because immediately you're causing irritation at the front of the pelvis, but also at the back of the pelvis. So what we want to do is ask the patients to imagine their knees being clumped together, draw their belly button to their spine and

# Zoe:

We want them to sit quite close together here. And what we can do is just roll. But then we need to squeeze the buttocks and hips to just shift to centre and then from here we're going to shift them across again and keeping them pinned together, knees stay level rotate to the other side. So that's the first way to turn is to keep the pelvis level as possible again just on the way back we're wanting to rotate, lift the bottom by squeezing the muscles to center squeeze again to the opposite side, ankles and knees stay level and rotate.

# Steven:

Now we're not seeing patients face to face generally at the moment, but that's a very useful thing to make sure they understand in terms of getting out of bed in the morning and things, isn't it? We often do that with with low back pain patients, but you've described very clearly there why we would want to do that for pregnant women.

### Zoe:

Watching for that shift of one knee going back behind the other and the other two very quickly to do for your patients because some people find that's really helpful. I have heard of another way, this didn't work for patients. And this second way did it just simply, you would take your bottom leg straight slightly open out the top leg. Often this is for patients who don't get pain going side to side, but get pain scissoring when they go upstairs, but they don't have lateral pain, in can vary on their presentation. The key now is to squeeze the buttock of the bent leg, and bring themselves to centre and then you change legs at this point, slightly externally rotate, again squeeze the buttock of the bent leg, and then turn this way, one more time in reverse. Squeeze centre, slide down, squeeze and turn. And the final way is to turn inwards.

So all of these can be used by the patients if they're rolling over on your plinth, but also in terms of getting out of bed. And the other thing I'd add to that is, which is very painful for patients is getting in and out of cars, and a really great tip for that is to put a carrier bag, a plastic bag or bin liner on the car seat. So when they sit down, they sit down with their knees together and then they can just pick their knees up together and swivel on the seat. It's important to ask them though to remove that plastic seat back out from under them before they stop driving. So there's no slippage or risk of injury. But getting in and out of the car, sliding a bin liner underneath their bottoms, keeping their knees together when they pivot, can be a real life changer for them.

# Steven:

Useful stuff. I've got a whole lot of questions for you here Zoe Lisa says, what body position do you advise for doing the pelvic floor exercises? Standing or sitting? Well, actually you demonstrated your exercises on all fours. Didn't you? If you were doing it standing or sitting, how would you modify it?

### Zoe:

Generally, I often do with patient sitting. Ujust because I find you're working against gravity, you feel it a lot more. Ustanding I think is harder. It's harder to focus or to feel. Ubut sitting is very good. Which is why patient's do it on the toilet. I'm in central London with my practice, so I get people to do it between tube stops, but I do remind them to not forget a stop because sometimes they do if they're really concentrating. Ubut sitting, I find it's useful. You can do it in any position, but,if patients are struggling to find that pelvic floor muscles then have a go at it, but on your elbows with your bottom in the air, it really does change what you feel.

### Steven:

Jane says, how far through the pregnancy can you do supine exercises? I'm not sure whether she's saying whether you should stop or whether you should start, but

### Zoe:

So supine exercises, you can do them all the way through the pregnancy. Obviously we don't want ladies lying on their backs for long periods of time in pregnancy. And so when we go into the third trimester, middle of the second leading to the third trimester, we're reducing the amount of time women lay on their backs for, because obviously there's the risk of the pressure on the blood vessels. However, providing you work with the patient, they feel fine, there's no shortness of breath, there's no dizziness and there's no pain or discomfort, women can stay on their back for short periods. The key to the exercises and some of them we'll go through is that you're moving most of the time, so your'e only going to be on the back for no more than five minutes at a time, but of course if the patient is in discomfort, you can do the exercises, kneeling and side lying and there's a variation for almost every single exercise in side lying and on your hands and knees. Again, if there's no risk problems that you can do that.

### Steven:

Okay, Andrew's asked if you've got any advice from minor inguinal hernias, which don't actually require surgery?

# Zoe:

All the pelvic exercises I'm going to give you in a moment. It's all about bracing and using your transverse abdominis and your abdominal muscles. Just the principles of pilates and it's the principle of all core exercise as well.

### Steven:

Well, you say you're going to do them in a moment. We only got four minutes left. We might have to get you back in again. Let's you go ahead and do some of your demonstrations now and then we'll get you back in to do some more later if that's all right with you.

### Zoe:

Well, I will do very quickly a couple of mobility exercises and then a couple of stability exercises so, there's no mind boggling ones here. They're going to be quite general ones. So mobility, providing there's , no risk injuries and no carpal tunnel, we can be on hands and knees. Patients may find this easier to do on the bed because then they don't have to crawl down to the floor so they can just pop onto the bed and also doing it on their knuckles might be more comfortable in that pace of if there is any, any risk to comfort. So most pregnant women spend their lives in this position. Okay they've got a very deep lordosis There's lots of compression in the lumbar spine and we want to take that load off. So we're going to start in this position and then you're going to take a nice big deep breath in.

# Zoe:

As you breathe out, just draw the pelvic floor muscle in which we've already talked about. Roll the pelvis underneath you, so pubic bone towards your chin curling up through the spine and bringing your chin towards your breastbone. Take a breath in to release. Send your tailbone away. Allow the abdomen to release. Allow the chest to fall and look comfortably forward. So our basic spinal mobility, our basic cat-cow Really comfortable in pregnancy and such a relief on the lower back. Secondly, we're going to add side bending, really simply wag your tail from side to side. So simply bringing the hips from right to left and turning to look at the hips. As you do this, if you want to make it a little bit stronger, you can walk your hands around, so I'm getting a really nice side bend through my spine, here loosening through the side of the waist, which really helps that tightness through the lower ribs.

# Zoe:

I would probably do about eight to 10 of each. Thirdly a rotation, a really nice one is just a salute. Look under your arm pit and bring your elbow to elbow. Repeat again. Look under your armpit, elbow to elbow. If you want to make it more challenging, reach, look under your arm, sweep your knuckles along the floor; and again about five each side. So really simply for mobility, to begin with. These exercises can each be done on your back. You can lie completely flat or you can create some nice little nest if somebody is heavily pregnant, just incline your pillows. So we're just gradually going up, if needed. If someone's in a lot of discomfort, I don't tend to have to do this with my patients, but it is an option. So the same thing in this position, you will gently rock the pelvis. So send the pubic bone away from your

chin and bring your pubic bone back towards your chin. So we're just looking at spinal mobility here. Gently rolling side bending. You just swing your hips towards your armpits and the same the other way. Swing your hips towards your armpit, same the other way. We can gently come onto the side to open the chest for rotation. And the same thing either here, open out and back or long lever. Very simple. So there's three mobility exercises in different positions. And then we want to go onto stability. Have I got time for three stability ones?

### Steven:

We're, we're on time now, right? We're at the end of the session now, but I'm sure people wouldn't mind if you'd like to just do a couple more.

### Zoe:

I'll do two major ones that are really simple to do and this can be done on your back very quickly. So in pregnancy we want to strengthen the soft muscles and this can be fantastic, especially when you see a heavily pregnant woman doing this. Provided there is no risk problems. We bring ourselves out of that dip position just into a neutral spine here. And what I'm going to ask the pregnant lady here is to let the stomach go as big as you can. So let yourself go as fat as you can. And then on your next exhale as you draw in your pelvic floor muscle, you're going to bring your stomach muscles all the way in towards your spine. So you're giving the baby a hug with your tummy muscles. Now it's important to keep breathing as you do this. So rather than doing counts of repetitions, I get the patients to count their breath cycles.

### Zoe:

So for example, we hold in for one in breath and and an out breath and then we would release and let the stomach completely relax. Same thing again, nice breath in, as you exhale, draw in the pelvic floor muscles that draw the baby all the way up into your spine. As you exhale hold the contraction, not the breath forl one in breath, one out breath and release. And as they get more proficient at this, you could hold the three breath cycles or five breath cycles. Remember that's holding the contraction, not their stomach muscles. Then the final ones to do, which is more challenging. And I use this for nearly all of my patients, for neck injuries for shoulder injuries, for back injuries, for core exercise, it's so much harder than it looks so, please give it a go. In this position you'd be drawing the baby in towards you. You'd be continuing to breathe normally.

# Zoe:

And then in this position you would push through your hands until your knee caps are just skimming the floor. You can see there's a little bit of space between my knee and the floor, and again, I'd hold for a series of breath cycles depending on their strength, and then I would release. If the patient isn't strong enough to do that for various reasons, or their wrists aren't enough, I would get them to do it once so they know how challenging it is, but then I would get them just to create that pressure as if they were going to lift the knees off the floor because it's actually really quite challenging on the core, it works the shoulder girdle it works the wrists, its a really good exercise.