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*\* \* \* Intro Music \* \* \**

Welcome to Supplementing Health, a podcast presented by Advanced Orthomolecular Research. We are all about applying evidence based and effective dietary lifestyle and natural health product strategies for your optimal health. In each episode, we will feature very engaging clinicians and experts from the world of functional and naturopathic medicine to help achieve our mission to empower people to lead their best lives naturally.

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[1:42] *Cassy Price:* Hi everyone, welcome back to Supplementing Health. With the New Year brings an influx of people who are focused on upping their athletic activity – which is awesome. Today, I am chatting with Dr. Mandy Swinden about how the menstrual cycle impacts competitive athletes and active individuals. Dr. Mandy is a Naturopathic Doctor is passionate about sports medicine and loves helping her patients achieve their athletic goals. Welcome Mandy.

[2:06] *Dr. Mandy Swinden:* Thanks! Thanks for having me.

[2:08] *Cassy Price:* Now you have a fairly diverse athletic background yourself, which I assume has helped to fuel your passion for sports medicine, correct?

[2:16] *Dr. Mandy Swinden:* Yes. I've always been an athlete. I've always participated in some sport.

[2:23] Awesome, so I thought maybe before we dive into our topic, we could talk a little bit about your athletic background and some of the accomplishments that you've done yourself.

[2:32] *Dr. Mandy Swinden:* Yeah, for sure. So I guess I started like most little kids with soccer. Pretty basic sport, and then gymnastics. And just from there just took every sport I possibly could. The two sports I took the furthest were basketball and rugby. With basketball I played Varsity for the University of Windsor, and we did decently well that season that I played. And then rugby, the highest level I played was Division 1 in the States. So, I played in Detroit when I lived in Windsor. And one of my, I guess, my greatest accomplishments was my team finished second at Nationals. I think it was the 2007/2008 season.

[2:22] *Cassy Price:* Congratulations!

2:23] *Dr. Mandy Swinden:* Thank you – a long time ago but it was one of my highlights. And then since then, I've been a competitive Crossfitter. I haven't done anything too crazy with the Crossfit world. I mostly just do local competitions. And then I've just dabbled in a bunch of other things. I've done some triathlons, a bunch of running races, different distances, 5K, 10K, one marathon, probably won't do another marathon. Already checked that off the bucket list. And then a couple body building competitions. So I just like to switch it up and just be able to relate to all my patients. So if there's a sport I haven't tried, depending on what it is, I'd like to try it and be able to speak authentically about it.

[4:16] *Cassy Price:* That's very cool. That's quite the gamut of things that you've done and dabbled in. So, researchers have found 71% of athletes report feeling worse just before the menstruation period. Can you explain why that is and is it inevitable?

[4:36] *Dr. Mandy Swinden:* Oh yeah, the late luteal phase. So common, and not just athletes. I think women in general just feel really crappy the week, sometimes even two weeks before their period. It really comes down to hormonal shifts. During the luteal phase, and just for your listeners who aren't sure what that term means, the luteal phase is the second half of your menstrual cycle. The first half being when you're on your period, so while you're bleeding, and all the way until you ovulate. So after ovulation until your next bleed, that's what we call the luteal phase. And that is the high hormone phase of your cycle. This is of course if you're not on any hormonal contraceptive, so just your natural hormone rhythm. And so, that high hormone phase can be problematic for some women, depending on the levels of their hormones, their nutritional status, lots of factors influence that. But we can feel really crappy if that ratio, so that ratio of estrogen to progesterone, isn't ideal. And if our hormones drop really aggressively. So, it's normal for our hormones to be higher and then they drop. And that drop in hormones is what signals the release of the lining which is our period. So if it's a big drop, if it's an aggressive drop, or if in that high hormone phase those ratios aren't ideal then that can contribute to women in general feeling really crappy but then athletes especially may notice detrimental effects to their performance or sleep or what have you. And often, they're more in tune with their bodies so even if they are minor shifts in how they're feeling, they really notice those shifts.

[6:40] *Cassy Price:* When I was growing up, I was told that it was normal for active women to skip a menstrual cycle or completely stop menstruating and since I've grown up I've also heard this referred to as amenorrhea. I might have totally butchered that part.

[6:57] *Dr. Mandy Swinden:* Amenorrhea, yeah. I definitely had believed that growing up as well but it isn't normal. It's common, but just because it's common, doesn't mean it's normal. And it can be attributed to just an energy imbalance. We used to call this, Female Athlete Triad. Now it's more a relative energy deficiency. So if you're burning a lot more calories in your activity and not fueling appropriately, so not eating enough calories. It's not even about calories, it's about macronutrients. So enough carbs, enough fat, enough protein, we need all of them. And enough of the micronutrients to build a healthy lining, build a healthy follicle, a healthy egg and release that lining, so having your period. Have a really low body fat percentage can contribute to this as well. A healthy body – obviously with some sports as an athlete you need to be pretty lean but at what cost. And that's always a conversation that need to be had. Sometimes as an athlete you're willing to sacrifice your health a little bit for a short period of time for performing well in your sport. But obviously you don't want to be not in a healthy body composition for a long period of time.

[8:44] *Cassy Price:* Some people believe that it's most likely to show up or this condition is unique to endurance athletes or high-level athletes, but it can be something that shows up in anyone who is active, could it not?

[8:58] *Dr. Mandy Swinden:* Yeah. And it's not even just an athlete thing. I mean, you can be obese and still get amenorrhea, or overweight and have amenorrhea. So for women, our hormones are very sensitive to caloric deficit. If we take an overweight person for example and they're trying to lose weight, and they put themselves in a really severe caloric deficit, they very likely will lose their period. And that's just as females, if we're not providing our body with all the nutrients it needs to procreate, our body's like, okay we can't make a human right not so lets just not ovulate, lets not do those normal physiological processes that are meant to create a human.

[9:52] *Cassy Price:* Yeah, that makes sense. So if someone was to develop amenorrhea should they be concerned? And are there any long-term detrimental effects if it goes untreated?

[10:05] *Dr. Mandy Swinden:* Yeah, definitely should be concerned. Yeah, there for sure can be long-term effects. I mean, we're meant to release our lining every month. How it affects women can differ from person to person. We shouldn't just be concerned about bleeding every month. There more to having a healthy cycle than just bleeding once a month. You can have a regulate period but that doesn't necessarily mean that you're ovulating. I'll take it a step further and say that as females, especially athletic females because we're a little bit more at risk for this, we need to be ovulating every month. That's how we make progesterone, and progesterone is a very, very important hormone for many things. We have progesterone receptors all over our body. And one of those things is anxiety and depression. Progesterone is an anxiolytic hormone, which means it decreases anxiety. And that is something I see very commonly in my female patients. Dealing with mental health issues and not really understanding why. And this can be multifaceted, but one of the common reasons I see is progesterone deficiency. And this can happen – so a goal is to be ovulation regularly, and some women will achieve that so

they're ovulating but they're still not producing enough progesterone. So we want to be ovulating but we also want to be ovulating really well so we can make enough progesterone to balance out the effects of estrogen to prevent anxiety and depression and all of the other great things that progesterone is responsible for.

[12:07] *Cassy Price*: Once someone starts taking corrective actions to correct an imbalance they have been suffering from, how long does it tend to take for them to get their menstrual cycle back or proper ovulation back?

[12:21] *Dr. Mandy Swinden*: A minimum of three months. Anytime, when it comes to female hormones, we do need to be patient because our hormones are cycling on a monthly rhythm and it takes 100 days to build a healthy follicle. So having a healthy menstrual cycle is all about having a healthy ovulation. And we look at the whole process of ovulation, so the little, tiny follicle and it going all the way to releasing an egg, that process is 100 days, or almost three months. So any intervention that we start, we have to give it a minimum of three months to see any significant effect from it. Often it can take longer than that but I always tell my patients not to expect to see anything drastic until at least three months. But sometimes it can take a lot longer than that. A year, a year and a half, sometimes even two years. And this depends of course on the history of the patient, for females who have been on some kind of oral contraceptive for a long time, that can take a lot longer for hormones, for your own hormones to normalize. And that's another super common thing. A lot of women have been on an oral contraceptive for a good 10 plus years.

[13:57] *Cassy Price*: Yeah, for sure. I think that's pretty common nowadays for people to use them throughout their life, right? Does taking an oral contraceptive positively or negatively affect athletic performance?

[14:10] *Dr. Mandy Swinden*: So, based on the research, and there's not a ton of research as I'm sure you're familiar with. A lot of research, most research is done on males and especially in the health and fitness space, even more. I can't recall the exact percentage but it's definitely over 60%, well over 60%, so most of the research is done on males and of course that is because females have this hormone cycle that can skew results. So, kind of frustrating, but the research I've read on performance and oral contraceptives is it does decrease performance, not significantly. But again, I've only ready a few studies on this. So, it does decrease performance, but it does help prevent injuries. Females are much more likely to tear their ACL, this is one example, and we now know that there is a connection, a correlation with estrogen and ligament laxity. Estrogen has a lot of benefits. One of them is cell turnover which is good for muscle growth. So, we know that in that first half of our cycle, which is called the follicular phase, when estrogen is building, women are more easily able to build strength, build muscle, but more likely to have an injury. So, cell turnover, great for building muscle, not great for our connective tissue. So, makes us more prone to injuring our ligaments or tendons.

[16:01] *Cassy Price*: Okay. Performance can kind of be measured in different ways then as well, right? Does it impact performance overall like as far as endurance and that sort of stuff, or is it

more that at different points in our phase we're more inclined for endurance activities and at other phases we're more inclined to those muscle building or strength building activities?

[16:28] *Dr. Mandy Swinden:* Yeah. I always tell women, like, we can do anything at any point in our cycle but exactly as you're saying, we are better at strength activities during that follicular phase, or that first half of our cycle. We need to take it easy ideally during the luteal phase but there are other components in our life that can affect our cycle. If we have the ability to control all of these aspects, maybe if we train really hard the whole month through each of the phases but then we change the other aspects of our life to match our cycle more appropriately. As an example, during the ovulatory phase, that's when our testosterone is the highest, our energy is pretty good. That's a good time to be doing social activities. Doing social activities during the luteal phase can be really draining on a lot of women. I work with some high-level athletes who can't necessarily control their training schedules. They have a coach who is making their training for them. I don't think we can expect coaches to all have this really thorough understanding of female physiology. Hopefully we get there one day, but we're not there yet. So athletes can't be like, excuse me coach, I'm in my luteal phase, can't do this workout you have planned for me. They might not be able to manipulate their training schedule but they have control, usually they have control of everything else in their life. Maybe during their luteal phase, they're training really hard so maybe that's a good time to not plan social events. You know, take it easy, stay home, do more selfcare activities. They can change their nutrition to match their hormone cycle, manipulating supplements as well. So doing all the other things, if they're able to, will just help maintain that hormone balance. If they were to train really hard, have lots of social events, maybe not have their nutrition be supporting their hormones, they're setting themselves up for something like amenorrhea or just anovulatory cycles. It's starting out as minor hormone imbalance, but if you do that month after month after month, those minor hormone imbalances can become bigger hormone imbalances and start to present themselves symptomatically.

[19:14] *Cassy Price:* That makes complete sense. Now most athletes, especially as they start to level up and push themselves further, are taking control of their nutrition and are already tailoring their macros to fit their needs and making sure they get extra electrolytes or whatever it is that they need, micronutrients as well to meet those needs based on what they're training and what phase of training they're in. Are there certain things they need to take into consideration then as a female athlete bases on where they're at in that cycle and how they're tailoring that nutrition plan?

[19:52] *Dr. Mandy Swinden:* There's a lot – there's a lot to consider. I think one of the most important pieces of knowledge that female athletes need, and all females, is that our basal metabolic rate increases during the luteal phase. And that is a really bad time to be in a caloric deficit and a really bad time to be decreasing carbohydrates. It's not a crazy amount, 300 to 500 calories of extra energy is needed during that time. But because we're just revving a bit higher, it's just bad news if we try to put ourselves in a caloric deficit at that time. And a lot of females, once they have this information, they're like yeah, I do feel more hungry at that time in my cycle. That's usually when we crave really palatable foods like chips and cookies. So if we don't have

this information, so let's say somebody is trying to lose weight and maybe they're doing it in a healthy way, so just a small caloric deficit, which feels easy and doable during the first half of our cycle but then when we get to the second half it becomes really difficult and that's because we need 300 to 500 more calories. Of course, you can be disciplined and push through that but it's not beneficial to do that. So, I would say that is a really important thing to consider during the luteal phase. Do not try to be in a caloric deficit and do not try to eliminate carbohydrates. Having something – like you don't have to have crappy carbohydrates, have some good ones. Things like sweet potato, oatmeal, rice, something starchy. Not in excessive amounts but make sure you're maintaining adequate blood sugar levels throughout the day. That's going to help eliminate cravings and prevent overeating. And then, once you're back into your menstrual phase, follicular phase, and even the ovulatory phase, potentially even a few days after ovulation, if you have any body composition goals that is the time to be putting yourself in a caloric deficit, but not an excessive caloric deficit. So, when it comes to weight loss for females, we have to just go at a snail's pace, super slow and steady will get us to achieve those goals and not be losing our period, not be losing ovulation, hopefully, and still achieving our goals.

[22:51] *Cassy Price*: Absolutely. So kind of in the same vein, you're more likely to decrease certain minerals when you're training, or electrolytes, things like that right? Especially depending on what your chosen sport or sports are. So are there certain supplements or minerals, nutrients that you think it's extra important for female athletes to be aware of before and after their cycle?

[23:21] *Dr. Mandy Swinden*: Yeah, I would say magnesium and B vitamins are the most important, specifically for female athletes. I would add in iron in there as well. Those three can make pretty big differences when it comes to performance. It's exactly like you said. Athletes are very demanding on their body and if they're increasing the demand, we need to increase the supply. We know that about macronutrients. We know we need to eat more to fuel our sport but sometimes we forget about the micronutrients and those are really critical. And sometimes, like we talked about amenorrhea before, sometimes the amenorrhea isn't due to an energy deficiency, it's a micronutrient deficiency. Our body just doesn't have the nutrients to build healthy eggs, to build a healthy lining. Iron deficiency is the most common mineral deficiency in North America and very common in females, more than males, and even more common in female athletes. I always recommend my female athletes get their iron levels checked, their ferritin levels checked twice a year. Once during their season and once during the off season. Being aware that the normal range for ferritin is very large and to take whatever number comes up on the labs in conjunction with their symptoms. If they're feeling low energy, if they're not having their period, or sometimes they can have a really, really heavy period – that can be a symptom of iron deficiency too. But supplementing if it's necessary and getting those iron levels to an optimal level can be really beneficial, just for feeling better in general but also for performing better in their sport. Magnesium is another one, so I mentioned that, super important for hormone health. Important for a lot of aspects of health. It's the second most common mineral deficiency in North America. It's needed for over 700 physiological processes and it can make a world of difference. Based on the research, it's not ergogenic, but being deficient in magnesium is ergolytic. So that just means being deficient in magnesium can be detrimental to performance but supplementing it isn't going to make you a super star is that makes sense. And

then, B vitamins, again really important for hormone health, specifically vitamin B6 and vitamin B5 is largely depleted by stress and we know that exercise is a stress on the body. Yes, it's a good stress but physiologically, it's still increasing our cortisol levels, it's still using up a lot of B5 as well as other B vitamins. It also uses up a lot of magnesium and vitamin C. So those magnesium and B vitamins, I just mentioned B5 and B6, but supplementing all of them is really beneficial. Those can help a lot with energy levels, with sleep, with recovery, those kinds of things. So, I recommend those three, iron, only if it's necessary. Always test iron levels before supplementing it. Magnesium, B vitamin, those are very safe to take without testing blood levels. I mean, B vitamins are water soluble so they're pretty tricky to test accurately anyway. I will add in, taking a biologically active B vitamin, so not just going to whatever old store and buying whatever B complex you find. It needs to be biologically active, just to be sure. If you're going to take a supplement, if you're going to spend money on it, you want to make sure you're actually absorbing the things that you're taking. And being sure that your body's able to utilize the nutrients that you're supplementing. The form does matter. It also matters for magnesium too. This is going a bit more in depth maybe than the purposes of this talk, but it can very negatively affect your digestion if you're not taking the appropriate form for you. Again, just talking about absorption, many of the cheap forms of magnesium will pull water into the GI tract and cause diarrhea, which a lot of athletes don't really want to be dealing with when they're trying to do a competitive event or just training for a competitive event. So, the form of magnesium matters as well. Those are just three of the many I usually end up recommending. I mean it would be ideal if we could just eat health and just get all of our micronutrients that way, but the reality is the soil is really depleted and our high-tech lifestyles, it's impossible to get the amount we need of some nutrients. Some you can get enough of through diet but for some, like those three I mentioned, it's really hard to, especially as an athlete.

[28:50] *Cassy Price*: Yeah, absolutely. Just for our listeners, if you want more details on the forms of magnesium that are available, and which ones you should be looking for, we did have an episode in season one. We'll post in the description which one that was to get more details on magnesium to supplement what Mandy was saying here. The other thing I wanted to touch on quick here was, you talked about ferritin testing for iron levels. Do you also do TIBC or do you just do ferritin when you're assessing your patients?

[29:24] *Dr. Mandy Swinden*: Ideally both, I mean, the more information we have, the better but typically doing the CBC and the ferritin can give us enough information. So usually I will get my patients to go to their family doctor to get a blood requisition just so they don't have to pay out of pocket for it. Naturopathic doctors can requisition bloodwork, but it's not covered under Alberta Health Services. Usually that's what I recommend for them to do so I'm not always in control of everything that's being tested.

[30:05] *Cassy Price*: It's awesome though that you want to work with their MD or family physician. Because I know that has been a contention in the past. I think now we're starting to move past it and more practitioners are starting to work together to provide a more well-rounded care, like 360 care. I know that wasn't always the case.

[30:26] *Dr. Mandy Swinden:* No, it's still hit or miss I would say. But usually – I say it's all about the patient. And the patient knows what their family doctor would be willing to do for them. But I always try to give my patient a speech, like you are in charge of your health and you're paying taxes like everyone else is so you have, you can, I don't want to use the word demanding necessarily but just be a participant and recognize that you have a lot more power as a patient than you think,

[31:04] *Cassy Price:* Yeah, absolutely. So as you were saying, our food isn't always as nutritious as we'd like to think it is too, and I think part of that is not just the soil and the growing practices, but we live in such a fast paced world based around convenience. It can make it tough to get that nutrition at times because we grab the quick, the protein bar or whatever it is, maybe fast food because we're on the go and we only have half an hour to eat or whatever it might be. So one way we can make that a little easier is meal prepping right? Making a meal plan, getting certain ingredients ready to go if you can, bigger batches of stuff, that sort of thing. I sure you did that especially in your figure competition days or even with Crossfit. So do you have any tips for meal prepping that can help our listeners achieve their nutrition goals?

[32:03] *Dr. Mandy Swinden:* Yeah, I would say one of the most important things is just scheduling. Figuring out when you're going to do it. Scheduling it into your week. Scheduling in grocery shopping and then when you're going to cook. And personally, I don't, I've never been one of those people, I'm just picturing in my head of like Instagram, like five of the same thing for breakfast, lunch and dinner for the week. Like, I've never been like that. I'm a foodie, I get bored of things really quickly so that's not how I meal prep. And if you're like me and don't want to eat the exact same thing every single day then I would recommend, this is what I do, I'll just make like batches of things, like two or three different proteins, two or three different vegetables, a couple of different starches and then I mix and match them over like two or three days and then I do another meal prep day and do the same thing. Just do batches of things and mix and match them so I'm not eating the exact same thing every single day. So yeah, scheduling in time to grocery shop, scheduling in time to cook, but also, learning how to cook. And this is not something that's going to happen overnight, but it can save you a lot of time and make meal prep just a lot more enjoyable. When you get a feel for what flavours go well together, what herbs and spices to use then it takes a lot less mental effort to do the meal prepping is easier to do. And your healthy food tastes a lot better so you're not eating bland food or using weird sauces that have that have crap in them to flavour the food. And obviously that takes a lot of time, but it just makes meal prepping more enjoyable, it makes eating the food more enjoyable and there's so many health benefits to using herbs and spices. Getting a little bit off topic, but digestive issues are really, really common and that's just one of the ways to help digest our food properly. Again, going back to absorption, making sure we're actually absorbing the nutrients from the food that we're eating. So using things like ginger in cooking, and onion and garlic and herbs and spices. A lot of those have phytonutrients in them that help break down our food and help with digestion. And even taking it a little bit further, like smelling those herbs and different scents when you're cooking can help get your digestive juices flowing. I know athletes, we don't always, we have pretty busy schedules. We don't always have time to cook everything fresh. I know in an ideal world that's what we would do but when you're doing meal prep or heating up

the food you've already cooked, smelling those things, getting your digestive enzymes flowing really can help with the breakdown of the food. Absorbing all the nutrients, absorbing all the macronutrients as well and preventing those digestive issues. And you mentioned, sometimes we only have a few minutes to eat, we're on the go. That another problem I see with athletes and not just athletes, busy people in general, we're not sitting down to eat, we're not focusing on our food, we're not chewing thoroughly, and as a result, many people have digestive issues. Whether it's bloating or heartburn or IBS, there's lots of different ways this can present. But a very simple thing we can do is sitting down, at a table, not on our phones, not watching TV, taking in the smells of our food, taking just one bite at a time, chewing thoroughly and taking a break between bites. That can help with digestion a lot. And indirectly help with performance as an athlete. If we're actually breaking down our food, we're getting the fuel where we need it to go, we're getting the nutrients where we need them, that's going to help with our performance later on.

[36:41] *Cassy Price*: Yeah, a lot of people think that digestion starts in the stomach but really it starts in the mind before you put food near your body.

[36:50] *Dr. Mandy Swinden*: Exactly

[36:51] *Cassy Price*: It triggers everything there. When you're talking about those Instagram or social media images of the same meals over and over it totally conjured up that image of chicken breast, broccoli and rice.

[37:07] *Dr. Mandy Swinden*: Yeah.

[37:09] *Cassy Price*: Like the old school body building

[37:10] *Dr. Mandy Swinden*: Yeah.

[37:12] *Cassy Price*: I do not want to eat that.

[37:14] *Dr. Mandy Swinden*: Yeah, I did not do that during either of my body building competitions. I for sure eat chicken, broccoli and rice but not every single day.

[37:26] *Cassy Price*: Yeah, they're all good foods but maybe not all on their own and not every day.

[37:32] *Dr. Mandy Swinden*: Yeah, exactly.

[37:33] *Cassy Price*: So I personally am a big fan of smoothies. I drink them almost everyday because it's a great way for me to get extra fruits and veggies and fibre into my diet. And I'll even throw in protein powder sometimes. So, I was wondering if you use smoothies in your nutrition plan and what are some of the high nutrient ingredients you consider adding in if you're trying to build on one for athletic performance?

[38:01] *Dr. Mandy Swinden:* I also love smoothies. They are such a great way to get a lot of nutrition in. And just easy, like they're not time consuming and usually you can make them with frozen things, so you don't have to always have fresh fruits and veggies stocked in your fridge. There's a lot of variety you can do with smoothies so my kind of go-to recipe I guess is just almond milk, well you don't even have to use almond milk necessarily, but a non-dairy liquid, so it can be water, almond milk, cashew milk, coconut milk, whatever nondairy milk of your choice. And then frozen berries, whatever frozen berries you want, protein powder, avocado – it makes it have a nice creamy texture – and avocado has a lot of health benefits, spinach, like some sort of leafy green in there. And then for my female athletes I will get them to do flax and pumpkin seeds in their smoothie or sesame and sunflower, depending on where they are in their cycle. So that is called seed cycling, you may have heard of it. It involves having flax and pumpkin seeds in the first half of your cycle, so the menstrual phase, follicular phase, and ovulation and then the luteal phase, switching to sesame and sunflower. And that just helps balance out estrogen and progesterone and it also gets female athletes more connected to their cycle and has them pay attention to what phase of their cycle they're in. And aside from that, there's really a lot of things you can put in there. I really like MACA, again especially for female athletes and even more so during the first half of their cycle when we need to be in more of a building kind of physiological state.

[40:04] *Cassy Price:* I had never heard of seed cycling before so I'm definitely going to look into that. I love throwing those things in but I never really paid attention to when I was doing which ones or whatever so.

[40:17] *Dr. Mandy Swinden:* Yeah, so there's not a lot of research specifically on seed cycling but there is a lot of research on consuming those seeds. More so flax, flax has the most research out of all those seeds but there's also some on pumpkin. And just consuming these seeds and the mechanism of action, there's a few different ones, but flax and pumpkin have been shown to be what's called phytoestrogenic. That means they contain phytonutrients that will bind to estrogen receptors in a loose way. So it can have a modulating affect on your estrogen levels. If your estrogen is really high, the flax and pumpkin can help lower it and vice versa, if your estrogen levels are too low, it can help raise them.

[41:11] *Cassy Price:* That's awesome. Well this has been a great conversation and if any of our listeners wanted to get in touch with you to work with you on their own athletic journey, how would they go about doing that?

[41:24] *Dr. Mandy Swinden:* My website is currently getting a revamp. I'll give you the URL but it's a work in progress right now. It's [drmandynd.com](http://drmandynd.com). I'm most active on Instagram and my handle is @drmandy\_nd. As I mentioned to you before we started recording, I'm in a sling right now because I had shoulder surgery, so texting is not easy with one hand. So for this past week I have not been posting regularly on Instagram but that is where I put most of my information and that's where people can ask me questions, etc. and set up appointments if they want to work with me. I also ran a 12-week online program, specifically about the things we've been talking about today. It's called the Hormone Performance Connection. So I post information

about that program on my Instagram. And we'll get my website up to speed with all that stuff too.

[42:38] *Cassy Price*: It's hard to keep up with that stuff for sure, especially when you're in a sling, have a little one, etc. so I'm sure everyone can understand that.

[42:45] *Dr. Mandy Swinden*: Yeah.

[42:47] *Cassy Price*: Well thank you so much, Mandy, for joining us today. And thank you to the listeners who have tuned in today for another episode of Supplementing Health,

[42:55] *Dr. Mandy Swinden*: Thanks for having me.

\* \* \* *Outro Music* \* \* \*

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[End of episode 43:37]