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Trim Healthy Podcast with Serene & Pearl Talking To The Experts ~ Bonus Series ~ Episode 6 Optimize Your Health & Embrace Your Physiology With Dr. Stacy Sims

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Quotables

- “If a diet cannot sustain your body during pregnancy and breastfeeding, there’s something wrong—because these seasons are so integral to the life of a female.” – Serene
- “Listening to the chatter, and the socio-cultural instead of the science leads women down physically harmful paths!” – Dr. Sims
- “You can’t burn enough calories during cardio for body composition changes.” – Dr. Sims
- “When you are strength training you need to consume lots of carbs! But even when you’re in a recovery week, don’t even go low carb then! You need carbs!” – Dr. Sims

Introducing Dr. Stacy Sims -Serene

Today, we are having Dr. Stacy Sims on the show to talk about how men and women are physiologically so different... especially as it pertains to working out. And she is bringing the science behind it! She is an exercise physiologist and nutrition scientist who aims to revolutionize exercise nutrition and performance for women. She has directed research programs focusing on female athlete health and performance and pushing the dogma to improve research on all women. Her research regarding sex differences in training and nutrition across the lifespan led to a significant paradigm shift... her contributions to the international research environment and the sports nutrition industry have established a new niche in sports nutrition; and established her reputation as the expert in sex differences in training, nutrition, and health. She is the author of [Next Level](#) and [ROAR!](#) You can find her and her remarkable studies on her website www.drstacysims.com

Dr. Stacy... I've run the gamut and have made a lot of my own mistakes along the way which has been very instrumental in what I now know. I was anorexic in high school and that fed me into looking at the trends before I knew them better. I was telling myself (and my coaches),

'Sure, I can do "' fasted training. "I can do a 7-hour bike ride on only water. Ultimately, I was listening to socio-cultural instead of science. I was led down a physically harmful path.

But when I started listening to my own body (instead of what the trainers were telling me), it caused all sorts of issues with them because I was listening to my body cues instead of their advice and I began succeeding. They would even reject my results... because I was embracing a paradigm shift based on non-male-centric science. Ultimately, I realized that was what my body responded to, and the science correlated!

The Uniqueness of Female Physiology Q&A with Dr. Stacy Sims, Pearl & Serene!

"Why Lift Heavy?" –Pearl

- "We need the stimulus to build lean mass. *Lifting heavy* is a central nervous system response to produce power, and force, and develop lean mass. When women are in menopause seasons, they need to learn to hit maximum weight to build strength. If you want functional muscle mass, you need the blocks of heavy resistance training but go back and forth between the two (higher reps, lower weights, and lower reps, higher weight).
- Even for those using BHRT, you still must put in the hard work– which is ***strength training*** and ***higher protein intake***.

"Why are women NOT small men? We may know, but what do you know as a scientist that you can share with us?" -Pearl

- It is commonly forgotten that there are 6 significant differences between men and women *in utero*. For example, stress resilience is higher in unborn females versus males. We don't see as many physiological differences between boys and girls.
- But development is an obvious difference that is seen during puberty these are sex differences. Puberty hits girls about 2 years before it hits boys. This is the huge dichotic shift that is seen from exposure to testosterone versus estrogen.
- Biomechanical changes hit girls that feed into why certain activities make them more uncomfortable at those ages... boys, on the other hand, get fitter, stronger, and more aggressive.
- Boys and men have a more linear trajectory, while women have so many more perturbations in their hormonal profile that affect every cell of their bodies... from puberty to pregnancy, reproduction, perimenopause, and post-menopause. Women don't have a linear trajectory like men do!
- Women have areas in the brain that understand nutrient density... so women are most sensitive because we're the ones who are baby carriers. Even when they're not pregnant, the body is still more keenly aware and sensitive. Since women are more sensitive, restriction of food affects them in far more negative ways.
- Most data that is available for working out is male-centric data, and for the most part, that cannot be generalized for women. Let's get down to the molecular level and translate that to the whole body so we can positively impact women's health outcomes.

“Regarding kisspeptin levels in the brain, women are so much more sensitive to them. What happens when we pull back food and go low-calorie? Can you explain this to our listeners?” - Pearl

- The hypothalamus, in the brain, is responsible for temperature regulation, appetite hormones, and endocrine function. In a woman's brain, we have two areas of kisspeptin neurons while men only have one. When they are upregulated (turned on) we have better appetite control and endocrine function. But if we're not eating enough, the hypothalamus senses that and turns the kisspeptins off (for the most part). This affects everything from the menstrual cycle to appetite, to thyroid function. We start to see endocrine dysfunction much faster in women (with lower caloric intake) than in men.
- With all the chatter about intermittent fasting, low-carb diets, and ketogenic diets working well, it's based on male data because men aren't as sensitive to nutrient changes as women are!

“I feel like I'm in the middle of repairing my muscles and body, after going after a bunch of fads early on in of my reproductive years. My energy levels were so low due to low protein, no meat, low carb, and other things. They all took a toll! I appreciate your female-centric health focus... and breaking down the stigmas that can cause women to not want to talk about their cycle and the shifts that happen during menopause. Can you speak to the practical for women to thrive through all their stages... when it comes to the reproductive years, perimenopause, and menopause?” –Serene

- **First, for those women in their reproductive years...** the menstrual cycle, and having a period is a good sign of health. Many social stigmas tend to limit our conversations around this. Even 16-year-old girls are put on oral contraceptives for various reasons. A physician friend of mine was telling me, “Physicians should be held accountable for handing out oral contraceptives like lollipops.” I agree with this perspective. There are so many downstream effects that come from these OCs that are significant. It's my perspective that there are appropriate times for these, but they are significantly *overprescribed*. Because, for a young woman to get to know her health, it's required that she watch all the aspects of her cycle; her period heaviness or lightness can help a woman orient herself to how she is doing (overall health, stress factors, etc.)

“Any advice for those that are premenopausal? If you could give them one thing?” –Serene

- It's so important because unless you get ahead of developing healthy choices while you're younger, the first things to go are lean mass and bone! We don't want that. How are we taking up space? Embrace the space that you take up. We want to be healthy, fit, and vibrant for the task at hand.

“For perimenopausal women, a lot of the chatter is encouraging them to fast. Can you speak to that?” –Pearl

- It is a frustrating trend. It leans into the idea of calories in, calories out... and that we need to be on a certain side. Right now, fasting is the supposed panacea for controlling our body size.
- The upsurge of fasting and the focus on the ketogenic diet in the medical community is based on three studies that were done on sedentary, obese, post-menopausal women—so of course they lost weight. But the only problem is that the weight was lean mass. And they had a significant decrease in their microbiome and ended up with significant metabolic problems. But because they lost weight, those studies are being used to push a specific perspective... It's a similar outcome with those who fasted due to a heavy exercise regimen—they experienced metabolic depression and could only eat half of what someone their size should be eating.
- But when we look at the hormone perturbation during perimenopause, and the flatlining of hormones during menopause because those sex hormones affect every system in the body— I would suggest a 12/12 (eating for 12 hours, fasting for 12 hours overnight – not a hard and fast rule for all). Stop eating after dinner and then have breakfast.
- And to achieve autophagy—the healthy turnover of cells—strength and resistance training is one of the very best ways to achieve this for women.

“If I’m in perimenopause or post menopause, what are some exercises that I should stop to avoid the cortisol spikes?” –Pearl

- Don't do things like going on the elliptical for 45 minutes or the treadmill for 45 minutes. Don't do a boot camp class, spin class, orange theory, or F45 class. You want to have significant spikes and then lowered times in your heart rate! And these exercises are just moderately challenging. If you're able to flex between high and low intensity, that will get a far better-desired outcome.

Dr. Sims on LEA and RED-S

- When you stay on track with healthy eating patterns, it sets you up for vitality in all areas of your life... energy, better sleep, breaking cycles of low energy. Then you can avoid outcomes such as LEA-F (low energy availability in females), RED-S (relative energy deficiency in sports), etc.
- When women are waiting huge amounts of time for healthy physical nourishment from food, they enter this state of LEA (in the morning especially, but throughout the day). There are obesogenic outcomes (less diverse microbiome, less blood sugar control, more body fat, poor sleep, higher inflammation, and higher cholesterol. We're burners in the morning!
- When LEA isn't properly dealt with, it escalates into RED-S. When RED-S is taking place the gut, heart, bone, and psychological, are all affected. It is significantly difficult to get out of it. Every system is downregulating.
- Keto and low carb are a big part of these negative states happening to women.

“How do women emerge from LEA and REDS? How do they break free?” –Pearl

- We begin with the 3-tiered approach... exercise, nutrition, and sleep are paramount for health. For someone who has inadvertently gotten into an LEA state, I start with having them tune back into their hunger cues, then getting into a better sleep rhythm, and finally, eating more to reorient their body composition.
- **Step One:** Recognize hunger cues.
- **Step Two:** Get better sleep.
- **Step Three:** Eat more, specifically more protein.

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