Â Peptides, How To Increase HRV

Mon, 11/8 8:12AM 35:56

SUMMARY KEYWORDS

heart rate variability, find, trt, hrv, system, stress, people, peptides, testosterone, water, good, breathing, sleep, ribcage, calories, max, hard, filter, higher, scars

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Welcome back to the flex diet podcast. I'm your host, Dr. Mike T. Nelson. And today, it is time for another q&a. So let's get into it. Question today. What are your thoughts about water? Should we filter our water? Should we buy bottled water? What water filtration system is the best? And just in general, any advice that you have? Thank you, Sherry? It's a good question. And overall, I would say, high quality water is going to be best. That doesn't mean that you necessarily have to spend a lot of money buying bottled water, I think that's probably not going to be best for the environment overall. And then you're kind of trusting that the bottled water you get is actually legitimate when I travel, which we haven't traveled a whole lot, lately, but when I did travel a fair amount before, depending on where it was going, I would buy more distilled water at the store, or some good spring water. Yes, I know distilled water doesn't have any minerals in it. But the distillation process will pretty much remove anything bad. And then I'll add minerals and electrolytes back to it. Plus, I'm just doing that for a short period of time. When we go down to say South Padre Texas, so we're gone for longer periods of time. Down there, for example, you can find the refillable five gallon containers. And you can find either places to buy directly. Or they even have different machines where you can refill it for like $1. So that's another inexpensive way, if you're going to be in a location for a longer period of time. At home has lots of I would say hype around water. And we ended up just going with a very basic water filter, we use a Berkey. From my research, as far as I can tell, for the money seem to be pretty legitimate. It's not necessarily super cheap, but the filters last for quite a while. And from what I can tell, it does a pretty good job of removing everything that we would want to remove. The nice part is it's gravity fed. So we don't have to apply electricity or anything else to it. Pretty simple process. So that's what we ended up doing. So far, it's been pretty good. So if you haven't seen them, they're gravity fed with filters inside, and you just add tap water to the top, it does take some time for it to filter out. So it is a little bit of a pain to make sure you need to fill it. In so far, we've been pretty happy with that. So for something that isn't, it's not cheap, but it's not outrageously expensive. I mean, I know there's some filtration systems that are in the several $1,000. And again, they might be good they might not. It just depends upon the particular system you have. And I'm by no means an expert in that area. But from my own research and what I could find and what I'd recommend to clients, if they're looking for something that appears to fit the bill pretty good, or we really are at there was some issues with the safety of our water. Other clients I have most places water is relatively safe to drink. But a lot of the places especially in bigger cities, where you have city water, they do tend to chlorinate the piss out of it. And the reason they do that is because chlorine is great at killing anything organic, and it's relatively inexpensive way to do it. So from a safety standpoint, that makes sense.

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Do I want a ton of chlorine in the water I'm drinking over time, especially if you extrapolate out several

years? Probably not. So I think filtering it with just a simple filter is going to be probably your best bet for the money. Another thing I do I talked about adding electrolytes and minerals back. The one that I use is from element which is just LM and t. I am an affiliate for them. So do make a few bucks if you go through my link, which is just Mike T nelson.com forward slash LM and T so all lowercase Mike nelson.com lowercase L, AM, and t. And I have used that product for about two and a half years before I was even an affiliate. It's a higher sodium content, electrolyte. And it tastes really good. Now I'm actually drinking it now. I love it. And it's all natural. Once again, I don't think artificial flavors or sweeteners are the end of the world. But for something that I'm going to consume a couple doses per day, on average, versus something that I'll just consume every once in a while, like a protein or maybe even a pre workout. I do prefer, I guess, more natural ingredients. Again, is there a ton of data, I can point to you on that? No. But for me, personally, that's just kind of my bias, they do use stevia, and they use a natural flavorings. And they taste really good, which I like. And I think one of the bigger mistakes I've made, and I've seen this with clients is drinking more water. But if you are a healthy individual, you're eating mostly real food, you're training hard, odds are you're probably not getting enough sodium in. And if I were to go back in time, I would have increased the amount of sodium. Since I've done that I feel better, my HRV. So heart rate variability, which is a marker for stress, is much more consistent day to day, I wouldn't say it's made a huge difference in the overall number. But day to day, much more consistent. And I can say that my training, day to day even in higher heat conditions, has been much, much better. I don't have nearly as many days where it was just really, really hard. Those days still show up. I had one of them literally yesterday as of this recording, but they are much more infrequent. In terms of other disclosures. I don't have any disclosures for Berkey, or any water filtration systems. I'm sure there's other ones out there on the market that are good. Just make sure to do your research. And I do think that applying some type of basic filter to water is going to be a good idea. question here from Ben, thank you so much for the podcast, really appreciate it. What are your thoughts on hormone replacement therapy for men and the use of peptides? Thank you so much. Well, my bias is again, I'm not an MD. I'm just a Ph. D. So you have to talk to your physician. But some things to watch out for is do they just want to solve the issue with just giving you testosterone and that's it. I think TRT So testosterone replacement or HRT hormone replacement therapy, I'm not pro or anti against it pro or con. It's an individual choice that you have to sit down and make with the guidance of your physician. But like all things that involve any form of drugs, I think you should take some time in spend a lot of serious thought thinking about it, do your research. If you want to get a second opinion from another physician. That's always a good idea. I would be wary of anyone who just tests your testosterone. And that is it. They don't do any other panel to see why your testosterone is low, and then decide you should be on testosterone replacement therapy. I'm not a fan of that, because there could be all sorts of reasons your testosterone is low. So in my case, again, I'm not currently using any peptides or have not done any hormone replacement therapy or TRT. Again,

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I'm not against it. I just want people with any form of drug to make an educated decision. When I was doing my PhD, I was also working part time for a medical device company and started doing my own training business especially doing online work. I had like couple in person clients also. I had my testosterone checked multiple times via bloodwork, and it was horrible. It was 250 to 85. I think the highest I ever had was the Rio three which if you're not familiar, that's definitely on the low end of the spectrum. But the sort of pro about it is I knew exactly why it was low. I was sleeping on average five to six hours a night. I was still trying To train because I didn't train a whole lot, I was stressed out of my friggin mind. And nutrition was, yeah. Okay at best. So poor sleep, high, high amount of stress that continued for many months to actually yours was the reason that it was so low. So my case, I decided to kind of wait it out because I knew what the reason was for it. So if your lifestyle is a Trashman fire, fix that up first, if you can at all. Because odds are, that will do it, if you're eating low amounts of calories, if you have your dietary fat is very, very low, you know, below 3040 grams a day for whatever reason, your stress is super

high, your measurements looking at heart rate variability are all wacky, right? So non invasive way of measuring stress, your sleep is very low or very poor quality. A lot of times people I've seen in clients who have sleep apnea, their testosterone has been on the lower side, they go to the doc, they get a CPAP, they get their sleep apnea fixed up, and all of a sudden their testosterone goes up, right, because they're literally waking up every few minutes, their body is low in oxygen, it thinks it's gonna die. That is not good for your hormone levels. So all that to say, look at lifestyle factors. First, if you go to a good endocrinologist, they're obviously going to be asking you about these things. The other question that I would ask your doc is, what do you do if you decide to go off, say testosterone replacement therapy? What do you do like is the odds that you can go off? Yeah, the research on there says maybe. But there's also some data showing that people who have used testosterone replacement, they may end up on it the rest of their life, again, so talk about that with your physician, especially if you are planning to have kids, there is some data again, showing that testosterone replacement therapy can be used as sort of not helping for reproduction. Now, again, that doesn't mean that it's 100%, either, but something to consider if you're older, and you've decided either not to have kids or you've had as many kids as you want, probably not as much of a concern that. So again, take your time, talk to him multiple physicians if needed. For me, personally, I have this weird thing where I just don't like being dependent on other substances. And I'm also definitely afraid of needles.

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Like even getting myself to donate blood is and I can do it, but it's very hard, even just getting simple blood work done. Again, I can force myself to do it. And that's only, you know, a couple times a year. And I just don't like the whole process. And of course, there are different methods. Now there's there's TRANSAS, dermals and other ways. So, talk to your doc, if you want a really good podcast reference for it that I would highly recommend. And we'll put a link in here to it. Check out the iron culture episode with Omar and Dr. Eric Helms, and my good buddy, Dr. Ben house, Episode 136, all about testosterone and TRT. Really, really great episode. So I would highly recommend that you check that out. In that they also had a what I thought was just crazy, is that some studies suggest eight to nine out of 10 men will cease TR T within about a year. Now that was news to me, which gives you some pause right. I think one of the myths is that getting on TRT will solve quote unquote, all of your issues. And in some cases, it can be incredibly helpful. And there are times that it can be used, but the single factor thinking that x or y or whatever the thing is, is going to solve all my issues. Rarely is that ever true. So try to discourage single factor thinking. But check out that podcast again. That's my bias. Pretty much. Same thing goes for peptides. Again. I don't personally use any of them per se. There is some fascinating research on it. I think is an extremely interesting area of research. Unfortunately, there's not as much research as I would like to see, this gets into maybe a pseudo conspiratorial stuff on that there's not as much money to be made in terms of patents, etc. But same caveat, find a good doc who works with peptides who is very knowledgeable, that is going to be your best bet. By far, some of the reports I've seen of the quality of peptides via the Internet is pretty damn atrocious. So if you are just buying whatever and getting it sent to you in the mail, that would make me very nervous, because I would want to be sure that one, I know why I would be doing it. What are the pros? What are the cons? And then am I getting something that's legitimate? Right? Again, you don't want any sort of weird infections or other things like that. So find a good physician. I know what peptide stuff, it can be harder. From what I've heard, which is anecdotal, I think there are probably some benefits to it. But I don't know, I just think sometimes the benefits may be a little bit oversold. And if you were doing that as an experiential and of one, it's always hard to rule out any effect of placebo, which again, you could argue that if you're better, you're better and who gives a rat's ass about placebo anyway. So that's my thoughts about TRT and the use of peptides. Find a good doc, spend some time thinking about it, make a list of all the pros and the cons and make sure that you think about the long term ramifications of it too. Because in physiology, there really isn't any sort of free lunch, everything is going to have a risk reward. And just make sure you are making an educated decision on that next question from

Bob. I know you're a big fan of heart rate variability. And I've been using it for quite a while now using the I fleet system that you recommended. But my HRV tends to be on the lower side. What things can I do to improve my heart rate variability? Thank you so much. So for this question, by low, I'm not sure how shallow the person is in this case. But some general things I found that can help Heart Rate Variability would be starting with the basics or the foundational work. Again, not really sexy, but sleep is huge. So I've looked at man 1000s of daily Heart Rate Variability samples from clients, athletes over well over a decade now. So I've probably got more experience looking at HRV than

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probably almost anyone I know, there's some bigger teams that probably have a lot more data, but it's super useful, right. So if we back up to why you would measure heart rate variability, it's simply a marker of stress on your autonomic nervous system. So you do the measurement first thing in the morning, for most people would be seated. I use the iCloud system. But there are other systems that are good, you can look at aura if you do want an automatic measurement Lane down. Caveat with aura is if you have a very low heart rate, since it has been measured lain down during your sleep, it may not move all that much. So if your heart rate is below, say 45 or 50 beats per minute at night, I would recommend doing what's called a commanded one off measurement in a seated position first thing in the morning. Again, for that I like using the Isolate system. If your heart rate is a little bit higher, and you're not really trying to fine tune stuff, then the HRV from aura can be useful. And again, I do like to sleep data from aura. The temperature on aura is extremely useful to look at what's going on potentially with metabolism and then also with your immune function to think that's something that gets glossed over a little bit too much. So let's say you're doing your heart rate variability, you're using the athlete system, you're doing it first thing in the morning either seated again sometime with really low heart rates, you may have to do it standing, but you're getting accurate measurement and things you can do to increase the baseline value. As I was talking about the basics, our best sleeps is going to be number one. When I've looked at HRV data on 1000s of people. You will find people who can train crazy and get away with it, you'll find people who can literally eat what you consider horrible nutrition and get away with it. But I have not found anybody yet, who can do very low levels of sleep, and still get away with it. So I do think some of those people may be out there, but I haven't found them yet. So sleep is going to be number one, do whatever you can to increase the quality of your sleep first, and then try to increase the duration of your sleep. I've done podcasts, you're on sleep, that's part of the flextight certification. So you're gonna find lots of good information on that. The other thing I would look at is your aerobic metabolism or robic base, if your robic base is very low, I've noticed in general, your heart rate variability tends to be lower. So that's one thing to look out for on that. And you can do this as a test, you can do something called a 12 minute Cooper run test, where you would use an app or GPS to determine the distance. And then you would run as hard as you can for 12 minutes. And then you can go online, and you'll be able to find different calculators that will tell you where your VO two Max is. So aerobic, and VO T max are kind of used interchangeably. VO T max is the volume of oxygen that you can maximally run through the system. So just think of it as like the size of your engine. The aerobic system is used for your metabolism most of the time, and even to sort of, quote unquote, repay the energy during training. So if it's very low, you're going to be exceeding some of the demands of the engine a lot of times. So I tell clients that if I have a little three cylinder Hugo, and I'm trying to max out performance, I'm probably gonna end up redlining that little Hugo all the time to get performance out of it, compared to a v 12. Ferrari, right, I'm not gonna need to redline the Ferrari that much to get a lot of performance out of it. If you have a very small aerobic engine, and your VO two Max is very low, I'd say even below, say 50% of the population, then you're going to have a higher level baseline stress is going to be harder for you to recover from stressors such as training. The other way you can look at this is a two kg on the concept to rower, set it for 2000 meters, which is a standardized test and get on in row as hard as you can for 2000 meters. This is not fun. This is completely utterly miserable. You may want to find you know white buffalos in the sky when you're done as you pass off the rover. But you can then go online,

look up concept two, VO two Max equation, and it will pop up, enter in your data there. And it will tell you what your VO two Max is. Both of these are estimates but in my practice, I found that they're pretty darn close. Again, you don't need I mean, I have a several $1,000 metabolic card here and Moxie system, etc. So you can get really crazy with equipment, which is fun to do. But for minimal equipment or getting access to a concept to rower that most gyms have, you can get a pretty darn good approximate of what your aerobics system is. If it's quite low, then I would do a dedicated block of aerobic training for eight to 12 weeks. Right. So you're gonna probably do something like what Dr. Phil Maffetone has talked about, where you could take 180 minus your age. So if you're 41 at minus 40, your max heart rate for your aerobic training sessions then would be around 140 beats per minute, I found that that will generally get you in the ballpark for some good, what is classically called zone two, maybe zone three aerobic work.

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So that can be good. I would do that as a dedicated block for eight to 12 weeks with slowly working up to, you know, maybe 233 and a half hours of aerobic work per week. Again, that's going to depend on a lot of variables. So it's hard to give you an exact number. I would still do some lifting of at least an upper body and lower body session per week. But I think that'll be well worth Your time. And then from there, you can add in some higher intensity interval work and some other things. But if you have a very low aerobics system, you will just get scorched by a lot of high intensity interval work, I find that those athletes just are not able to recover from it. And in general, their recovery from strength training and other insults is also much harder. So number two would be a Rubik system to do a 12 minute Cooper run test, or a 2k on the rower, use the equations online, that'll give you a pretty good approximate of where you're at. The other number three would be looking at total calories. Now again, if you are cutting calories on purpose or fat loss, I find that HRV in general, for everything else holds, will tend to erode, right because it is a stressor. One of the mistakes that I've made in the past is probably having periods of time that I was weight neutral are slowly going down. And my calories were definitely on the lower side. And it started to impact my heart rate variability. That was in a little bit of this no man's land where my calories are on the lower side, I was losing weight a little bit, but not real fast, but was not really eating enough to keep my HRV higher and thus be able to do more training. So that's a sneaky one to look at. So a lot of people that I've worked with one on one, when we've bumped up their calories, they don't necessarily gain a lot of weight. Again, that's a very variable. Some people just increase their metabolic rate and make up for it and stay weight neutral, and have a better heart rate variability and eat more calories. Again, that will top out at some point. Other people are kind of walking a little bit of a tighter tightrope, so to speak. So it's different from one person to the next. But if you are robic base is good, your sleep is good. Your overall stressors are pretty decent, then I would look at total calorie intake, making sure you have enough protein, good micro nutrition, etc. All that stuff, we cover all that in the flex diet certification also. That's what I would look at in regards to nutrition. The other area would be breathing mechanics. So are you breathing more from your quote, upper chest or more diaphragmatic breathing.

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I know all those terms get completely bastardized in general, because your diaphragm is always working. But imagine that your ribcage if someone put in a balloon and you inhale, you want it to expand 360 degrees. So it's going to go down a little bit up and then out. And then we also forget that a large portion of our ribcage is behind us. So when we're breathing well, we want the ribs in the back to also expand what's called posterior medial Steinel expansion. And better breathing mechanics, I found will translate into better heart rate variability. In essence, you are less sympathetic with each breath. What's cool about that is that system is a two way street. So if you are using your upper traps a lot the muscles in your neck, like your scalenes, your FCM sternocleidomastoid to lift up the ribcage, that signaling to your brain and

that, hey, we must be under a bunch of stress. Because those are ideally designed as accessory muscles when you've kind of maxed out exercise, and you still need to drive more air into the ribs and to the lungs. But if those are being used most of the time, that then signals the brain that hey, we must be under a bunch of stress here. If you get better breathing mechanics, you can get those to kind of calm down. Then you increase parasympathetic tone. Right so you're less on the sympathetic stress side also, in terms of things that work for that I've done all sorts of stuff. I've done work from PRI postural Restoration Institute, which has been helpful in the past. Currently I do mostly work from RPR reflexive performance reset or the sort of hands on version of that is be activated training from Doug keel. If you have someone in your area that does that. I think getting a session with them is super beneficial. They can show you exactly what to do. I know RPR has a level one and two online right now. I don't make any money off of the courses but I do teach for them in person. So that's what I would check out for Buddy breathing mechanics I find that most people can do the drills, they are not super intensive from a technique standpoint. The downside, I think of some of the Peter II drills, which again can work really well, if you are guided by someone who's very good in it. But to learn on your own, I find that they tend to be much more complex, right, find the RPR drills tend to be much easier in application. So breathing mechanics, would be the other one. Those would be like the main top heavy hitters, there's a whole bunch of other stuff you can add to the list. If you have sometimes past traumas, you can have lower heart rate variability. If you've got weird stuff like I do, where your eyeballs are not seen in three dimensions, you have visual suppression of one eye, that can lead to a higher baseline level of stress. I keep in mind that the visual the eye system ties into the vestibular, or sort of the quote unquote, balance system also. So you may have some deficits in there. So I've done some specific functional or clinical neurology work through Dr. Shapiro's office here in the Twin Cities, Minnesota, with both I and the stimulator work. And that's made a big difference in my heart rate variability overall. Right, so you can think of it as those senses are firing into the correct centers of the brain. And they're generating less errors in the process. So when there's less errors in the process, you have a cleaner picture, and you're going to have less overall stress because of that. Another thing I'm kind of the weirdo in is any type of scars. I've seen some scars can be quote unquote, more active than others. I've seen people who have a lot of scars and have had no issues at that time that we can find with them. I've seen other people that have had smaller scars and have had some issues with them. So it's really weird. And I don't understand why that is. Keep in mind that tattoos are also dermal scars. And doesn't mean that all tattoos are bad. I've seen people that have been, you know, 80% covered in tattoos and can find any one of them that was active. I've seen people with a one inch tattoo on the lower back, when we just worked on manipulating that, that it made a huge difference with their low back pain.

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So who knows. I've used the dolphin microcurrent system for that for any type of scars. So it's dolphin MPs. Again, I don't have any disclosures with them. But I've had open heart surgery in the past. So 1978 When I was four and a half. So I had a very large midline scar. And when I had the scar worked on the first time, my heart rate variability went up almost over 12 points and stayed that way for like three and a half days, which is pretty crazy. So I ended up buying the system and got to play around with it. The other thing is midline, scars tend to be more active. So sternal scars in the middle. And then for women, if they've had C section scars, for whatever reason, I noticed that those tend to be more active. Again, I'm not really sure why. So that may be another one that's a little bit farther, farther out there. But when you've kind of gone through everything else, and you're still can't quite figure out what it is, that would be something to look at, I think on the website for dolphin, you can actually find practitioners in your area, what I've noticed is, it's usually only one, two, maybe three treatments, me you should see a difference. Most of the time, you're going to see the biggest improvement after the first session. So if you've done two sessions, and you don't see any improvement near, I won't really worry about it. If you've done you know three sessions, you're probably pretty close to getting the the max out of it at least for that period of time. So those would be some items that I've noticed in the past over, oh man 10 plus years of using heart rate variability, I do

find that it is very useful because you do get a status of the autonomic nervous system within a couple of minutes on a non invasive measure you can do each each morning. Once you have the system, it doesn't really cost you any more money either. So it makes it really nice to do it repeatedly. Everybody gets hung up on having, you know, fancy, maybe saliva cortisol measurements and all these other stress markers. But to me, they're not as valuable because you want something that you can do each day to see what are differences and for you as an individual. What are things that move the needle because it's going to be a little bit different for each person, so there you go. Thank you so much for listening to the podcast. I really appreciate it. If you enjoyed this one, please hit the subscribe the button and leave us a review. Whatever stars you feel is appropriate, and any feedback would be great. You can also get on the newsletter, which is daily free information, all about increasing performance and improving body comp all without destroying your health. Go to flex diet.com flexdt.com And you'll be able to get on the newsletter there via the waiting list for the next flex a diet certification. That will open up in January, and you'll also be the first to be notified on that. Thanks again for listening. Greatly appreciate it. Talk to you soon.