

# Rant- My Top 3 Pet Peeves About Fitness Information - and A ...

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## SUMMARY KEYWORDS

research, context, certification, physiologic, constraints, details, areas, clients, understand, people, power, study, information, theory, based, keto, speed, background, performance, stay

## SPEAKERS

Dr. Mike T Nelson

- D** Dr. Mike T Nelson 00:00
- Hey, what's going on? Welcome back to the flex diet podcast. I'm your host, Dr. Mike T. Nelson here, where we talk all about things you can do to increase muscle performance and better body composition, all without destroying your health in the process. And today, we have a special announcement that the physiologic flexibility certification is open today. So if you're listening to this on the day, this podcast came out, September 13 2021, you can get all the details at [physiologicflexibility.com](https://physiologicflexibility.com). And you'll have the details of the search all the information on it, it will be open for one week. So it'll be open from September 13. Today, through the 20th of September 2021. So if you're listening to this, after that amount, you can get on the waitlist to be the very first to be notified once it opens again. So if you're interested in the certification, or you want to get on the waitlist just depends on the time that you listen to this, it is the same URL, go to [physiologicflexibility.com](https://physiologicflexibility.com), for all the details. If it is outside of the an open enrollment period, there'll be a way that you can get on to the newsletter there. So thank you so much for that. And today, we're talking about, in my very biased opinion, three problems with inflammation in the fitness and nutrition realm. And I think some of this, or maybe a large part of it is from short attention span theater, on social media, which I'm probably just as guilty as everybody else. But what I have seen is a bright spot. So this past year and a half has been pretty crazy. And I think for fitness professionals, they've realized that they're either going to stay in the profession, which has been far from easy the past a year and a half.

Or unfortunately they've decided to get out. I think at this point, most of them have probably already made that decision. And if they're staying in, they have decided to invest in a better information via certifications, some in person training, when it is possible. And to me, that is a great thing. Being able to do those in person, I think is best. Again, I do sell an online certification started off with the flextight certification 2018 before this all went down. But I do believe that in person is better do teach once in a while for RPR, reflexive performance reset, and that is primarily in person also. But I think the three main issues with information now, I'm going to go through and then I'm going to propose a solution to them. The number one this is especially with certifications and even online information. biggest problem is that there's no context. As Ashley online we see this a lot. If I pick on keto, oh, everybody believes that keto is either the best thing in the world, or it is the worst possible thing you can do. And as I've tried to point out, it just depends upon what you're trying to do. What is the context? And the biggest context at the top of the pyramid is are you dealing with a pathology, so stuff that's not going wrong disease states, or more normal quote unquote, healthy physiology for performance? These are two completely different lands. So if you've got Bob who's bought looks like a couch cushion, compared to a high level, we'll say CrossFit athlete who is exercising two to three hours a day, though, are both humans, but their physiology is incredibly different. And I think sometimes we conflate pathology and normal physiology to gather. So an example is keto is the best diet to do. Maybe again, For what, if you are looking at the data on ketogenic diets related to concussion and traumatic brain injury? I think you can make a very good argument with that there's a fair amount of animal data and some early human data, that that is true. So for me personally, if I unfortunately get dropped on my head kiteboarding even though I'm wearing a helmet if I get concussed, somehow car accident, mountain biking, all the other crazy stuff I do. Hopefully that doesn't happen. But if it does, I personally am going to transition to a ketogenic diet as fast as humanly possible. To even that degree, I carry ketone esters in, in my car, and actually in all my kiteboarding gear, they're kind of expensive, they're about \$33 a vial. But at that point, I'm not going to care about expense. Four, you can buy at least three to kind of kickstart that process, you invest 100 bucks. To me, I think that's probably a safe investment. Now, again, this is not necessarily medical device or medical advice, talk to your physician, health care provider, clinical neurologist, etc. And I've even gone so far as to do formal training for the Kerrigan Institute of clinical neuroscience. I have a whole product that details all the information on ketogenic diets and concussion, TBI. So you can find that on the Kerrigan Institute website, full disclosure, I do make some money if you purchase it, but I do not have any affiliates for that. So for keto in context, I think if you have a pathology, that there is some very good data for that you can look at the verta Health people, they've got some data for a ketogenic diet for type two diabetes. So if you have a pathology that you're working under your physician to help with, that is completely different than if you have normal physiology, that you are then trying to maximize. As I've talked about ad nauseum before,

stay on the topic of keto, for speed and power production. There's a fair amount of data showing that a ketogenic diets are not best. Even if you do a ketogenic diet, and you replace liver and muscle glycogen before the event. So your glycogen stores are topped off, you still see a reduction in speed and power. Part of that is because you haven't run that end of metabolism that carbohydrate and or glycolytic end, and you have enzymes that are downregulated. Because of that main enzyme there is PDH rovid dehydrogenase, there's also some other ones. So even when you replace carbohydrates, and you have four glycogen stores, you do see a drop in the single digits of speed and power, because of the changes in those enzymes, and that your carbohydrate metabolism isn't up to the highest degree. Now, if you're not really doing anything that requires speed and power, who cares, right? Probably not a big deal at all. If you are a high level athlete that needs speed and power, and we'll pick an arbitrary number of I'd say 5% that it cut off the top end of your performance. That is freaking massive, right? So again, if your recreational athlete not doing speed and power, the context, their Kido probably just fine. If you are an elite athlete that does involve speed and power, then a 4% drop, let's say that's huge. And anecdotally what I've done with some of this data, too, is I've had clients, one client in particular, he was eating a fair amount of carbohydrates and we bumped his carbohydrates up even higher. And when he did some high output stuff on the concept to rower because it always gives you power output on it, which is really nice. He was able to increase his Power BI I almost think it was 50 watts. So pretty substantial even by going higher in carbohydrates. So again context of all these things matters. And most of the time when people are discussing whatever the latest whiz bang study is or x y z concept. There is no context there is no big picture that is trying to explain when this intervention is useful or not useful, because it's very rare that things are either quote in good or quote bad, right? It usually almost always depends upon the context. And as my buddy, Dr. Ben house has said, if you don't understand the context, you're potentially a very dangerous, right, you're running around with a hammer, trying to think that everything looks like a nail. Odds are you may try to apply yet, when it is not the best idea. Last part, I think about this, too, is that from an engineering standpoint, all systems need constraints. Even with clients, one of the main questions I asked them for one on one clients is to get out their constraints. How much time? Do you have to exercise and work on nutrition per week? What do you have access to from an equipment standpoint? and a few other questions that constrains my ideas of what is the best program down to those specific things from that client? For example, if I tell them, hey, you need to do, let's say, leg extensions, and they're like, Bro, I don't have leg extensions, I only have time to lift in my ad hoc home gym, and I don't have leg extensions. Why do you have to do program leg extensions, you friggin idiot. Right? So the constraints are going to limit your choices. And that's good. Right? All engineering systems have constraints. And that is a good thing. So for example, I talk lions, his lines on the highway are constraints, right? stay in your lane when you are driving your car, or very bad stuff could happen. So we all need constraints,

we need to have a discussion of the context. And a bare minimum, just mention, what is the context you are talking about? Is this some type of pathology? Is this a recreational client or athlete? Or is it an elite athlete, and there's all sorts of subdivisions within that. Number two problems I see with information in fitness. No little details provided, or based on a peer reviewed research. Now, again, of course, I do research, I read a lot of research. So of course, I'm going to be biased towards providing research. But I also 100% understand that research doesn't always have the answers. There's tons of things from research, where if you've read all the research on XYZ topic, your answer is, I have no idea. Or many times there is no data, it just has not been investigated yet. The sad reality is that performance and data is not a top research goal for a vast majority of researchers. I even ran into this when I was doing my own PhD, I had to sort of shoehorn performance research into the lab that I was working in. Again, going back to constraints. I didn't have a budget really for it. But my advisor said, Hey, you can use the equipment we have here in the lab, we will cover the costs. But if you want to add anything else, we don't really have a budget for it. So if you want to pay for that out of your own pocket, be my guest. So that meant running blood samples, not really that possible, because they had to be run out through what's called the GC general Research Center. And we had to pay them for their time and materials to do that. However, we did have metabolic hearts, we had systems to measure what's called flow mediated dilation. You occlude in the arm, and then you watch under ultrasound, how much a vessel will expand. Once you've removed that occlusion, you've got a rapid influx of blood flow, which causes shear stress along the vessel wall, and then causes the vessel to dilate. And under ultrasound, you can then measure that. And we had heart rate, heart rate variability, and we had some Doppler, we had no Pat, so we didn't have some equipment that we could use. So that constrained the questions that I could ask. So my research then was looking primarily at metabolic flexibility and heart rate variability. And part of the reason for that is I could answer some of those questions in the lab equipment we had without any extra cost. So again, I understand the research will not always provide an answer, per se, it's usually generally trying to disprove what we think and if someone Like my good buddy, Coach Cal Dietz says, you know, hey, I've been doing this weird tri phasic thing for the past decade. And I've measured a bunch of stuff in the gym. And here's the results I've seen, even if there was zero research on that. And again, in this case, there is research on that from the different components of lifting. I'm still super interested because that is anecdotal data. But in place of any other data, sometimes that's the best we have. And especially from experienced practitioners who have many reps have been doing it for decades, that is still data and still useful. So I don't want this to turn into only research will provide all the answers, researchers just providing us in general direction. However, what I see that annoys me to no end is in the case where we do have plenty of research, people picking off one study without again, the context or background of it, or citing things, quote, based on research, that are completely wrong, or even out dated. Again, I have zero problem

with somebody saying, in my experience, I have noticed, XYZ, great, that's awesome. That's your anecdotal experience, super cool. Depending on who you are. And your background, again, that will determine for me personally, how useful I think that is, if you're 19 years old, typing away in your keyboard, and you live in your mom's basement, you've never trained a single person. I'm not really that interested. If you've been doing this for several decades, and I've trained hundreds to 1000s of athletes. And I know that you actually take some type of pre and post measurement, I'm a lot more interested. So pet peeve. Number two is no details provided on any peer reviewed research. And again, experiences great. But when we have actual research in those areas, we should use it. And again, I understand why this is not done a lot of times, one, it's a pain in the ass. Like I will be the first to admit that there are some areas of research, well, many areas of research, I am not up to date at all right now, even though I probably was in the past, I can skate by for a little while. But if there's a project or something that I need to be up to date on, the good part is, I have a skill set that I can go back, I know where to look, I probably have a background of the research. And I can get up to speed relatively quickly. And that's only because I've put in literally decades of being familiar with the research, in many areas, reading a lot of it and a PhD. So I have a skill set, and actually how to research and how to conduct it. And I understand that not everybody has that skill set. And just because you can read the actual research, this is assuming you go beyond the abstract. It is a separate skill set. And again, one that anyone can learn, you don't necessarily have to do a PhD. But reading research and interpreting it is a skill set. And it's perfectly fine. To me to opt out of some areas, it is impossible to stay up to date on all aspects of research in strength, conditioning, nutrition, neurology, etc. So for me personally, there are certain areas I have completely opted out of, for example, one of them is statistics. Now again, I survived biostatistics, I have a minor in Mathematics, I can do basic stuff, and I understand the theories. However, if you're going to come at me with some Bayesian statistics, this, this and that, and go really far down that rabbit hole, I will be the first to admit I am not that person. And I haven't done the skill and I haven't done the work in the last couple of years to update on whatever the latest statistical methods is. So for peer reviews that says if they have the option of an outside statistical review, and there are things in there that I don't understand, and after a couple hours, I don't believe that I will be able to understand I'm going to check that box every time because I don't trust my skill in that area anymore. So it's perfectly okay to opt out of some areas. But just be aware of what those boundaries are. And then the last part too is just because people have read the same study doesn't necessarily mean they're going to come to the same conclusion. And this is where you can then have an intelligent discussion about the research. And that doesn't mean that everyone's going to agree again, it just means that at least you have something to base it on. Last part, too, is there's no simple answers. Many times, as I said, in research, my favorite quote is from Dr. Pat Davidson. He is we're really trying to knock down the bowling pins of what we thought was true. Right, so the point of running a study is

something called a null hypothesis. Right, I have a theory that metabolic flexibility is, let's say the best for roaming at UK. Again, that's completely made up. But my goal then would be to try to disprove that theory. So like a bowling pin, we're just trying to knock down these things that we thought were true, these different theories. And that is the goal of science. At the end of the day, if this one pin, this theory has been around, like saying, gravity, for a long period of time, we have not been able to disprove it. At some point, we'll probably just say, it's probably true. Right? Again, this is very complex, it's very messy, and can't be done with a single study. So my pet peeve number two, no real details provided on peer reviewed research, saying that research shows blah, blah, blah, and then there is zero reference or zero background on it, it is very hard to determine if that is correct or not, at least if there's research stated there, you can then look at what was stated. And if you are familiar with the background, you may realize, oops, they left out this whole body of research, but you can then start to have an intelligent conversation. Or if you're not familiar theory, you can go read those studies. And see if you come up to that conclusion. If you don't, then you have something you can actually have an intelligent discussion on part three of sort of my pet peeve, and this gets a little muddied. There's no details on what actually to do. Now, again, I think part of this is why are you providing information. In general, what I see is two extremes. And one of always do X, always do cold water immersion if you want to lose fat, and then no references, no contacts, nothing else. And they may even give an extremely detailed protocol, make sure your waters 47.7 degrees, go all the way up to your neck for 17.8 minutes or whatever, right. But I don't want to go that long, but very, very detail provided, which gives sort of the influence that this may be correct, because humans like the details, but no background on it at all. Not even, you know, in my experience, I found blah, blah, blah. And you have the other extreme, you have a lot of research being thrown around. Like what do we do with it? Right, especially if you are writing an article that is attempting to tell people what to do, right? The average person consuming information, wants to know, what do I do with this? If I go into my CPA, I generally don't have long discussions about the tax law and other theoretical things. I want to know. Yeah, like, how should I file this? Do you need this information? Is this helpful to you or not? If we did this, is that better than that? Right? Yes, I want that person to understand the research the context be good at their job. But the end of the day, I want to have specific actions, because that's what I'm paying them for. So again, my pet peeve number three is no real details provided on what to do just a lot of research quoted from fuzzy mice studies that may not even apply, or really in depth hyper details with new background whatsoever. Again, I get it if you're on the bleeding edge, and there is not research in that area. And you are proposing some mechanisms and you state that you are speculating. That's cool. God knows I've done that a whole bunch of times. But hopefully it's based on something And just state what it's based on, even if that's your personal experience, and then also state the context of it. So those are kind of my three pet peeves. And shameless plug, when I designed the flex diet certification, the framework



I was using was to try to come up with a way to counteract each one of these areas. But I had found and notice with a lot of certifications, especially when people are paying hard earned money, they were pretty good within some areas and kind of dropped the ball in other areas. And again, if you know that going in, that's not necessarily bad, right? There's a lot of things, I'll pay for a summarization of the research to get up to date on it. And I know that it's a hardcore researcher who doesn't really have to apply any of that information. They're just doing a really nice summary of the literature. And that's definitely extremely valuable. But I know that going in, and I know not to expect an exact list of things to do. However, there are some certifications where they tell you exactly what to do. But it's not based on anything, or sometimes it's based on wrong information. And there's no references listed. So I can't even go look up where I would go next to try to get more information. So what I did with the framework for the flex diet cert and the physiologic flexibility, cert is number one to deal with the idea of context and constraints is I did a video that is eight different parts on the big picture. Here's the two theories or one theory you need to know. And having this overarching big picture that everything falls under gives you the lay of the land and the context of how these things are operating. This allows you to kind of problem solve things that come up, because you're understanding the context. So in the flex diet certification, that is the idea of metabolic flexibility and flexible dieting. With the physiologic flexibility, certification, it's the idea of targeting for different homeostatic regulators to be more robust, anti fragile, and greatly enhance your ability to recover and just generally be pretty damn hard to kill and increase your longevity. So the big picture there is, what are these ideas of hormesis and stress? How does your body respond to it, when these are different stressors, these are not necessarily nutrition or exercise, things like changes in pH changes in blood glucose, ketone levels, temperature differences, hot versus cold, high levels of oxygen, low levels of oxygen, high levels of carbon dioxide, etc. So those are in the area of the four homeostatic regulators. And the concept is your body is wired to survive and has to hold those things constant. And when you understand the idea of that, and adaptive homeostasis, or sometimes called hormesis, then it allows you to figure out some other questions that come up, and allows you specific context to make a better educated decision as you go through. So those series of videos kind of build on each other throughout the course. My second pet peeve I talked about, not really based on research. So for both courses, I spent a exorbitant amount of time going through as much of the research that I could possibly find. Now, again, I'm not gonna sit here and say that, you know, I read every single study that's been out in those areas, because of the constraints that I applied certain things with heavy pathologies, I did not talk about, again, for most pathologies, you're going to have to work with your physician on it. Again, the context there would be completely different. The context I was working with are people who want to be healthier, increase their performance, body comp, muscle, etc. So that's going to constrain part of the research. And then I also placed a heavy emphasis on human research. I did do some animal

research if there was not any human research present. And then all of the references are included both at the end of each module and even on each slide. The reference was used or the research was used. So that way, as you're going through, you're like, oh, wow, that study sounds pretty cool. I'm gonna go pull this study and actually read it. And you may come to a slightly different conclusion. If you do, that's cool, just send me an email, and we can have an intelligent discussion about it. But again, I tried to use as much human research as possible, to make sure that I was not leaving things out. And I tried as hard as possible not to be overly biased in one direction or the other. As of this podcast recording, I don't really have any commercial interests in any of the ideas that I espouse in the physiologic flexibility certification. So I tried to stay as neutral as possible. So of cold water immersion is amazing, great. If it is not, that's fine, too. If research on sauna is amazing, great. If it's not, yeah, I'm not going to try to pitch you a, you know, \$9,000 sauna that you have to put in your house. Right? So that the number two that I work to resolve is using actual peer reviewed research, it is all quoted in the certification. And you can go look it up for more details. So each one has a what I call technical primer, where we break down the research based on the actual studies and talk about the context of them. And then what is the result of all of that research kind of combined together? Because we want what's called a consensus of the literature, if that is all possible, not just the use of hey, here's one study. And that's all. Last example, in that area, for some of the things when I was looking at, like oxygen and carbon dioxide, those two sections were by far the hardest for me to do and the physiologic flexibility cert. Part of this is just because I had to review some of the underlying physiology, which is great. But there's entire courses that are taught on just respiratory physiology. And on top of that, changes in altitude, or pressure being less pressure at altitude or more pressure, for example, with the deep sea diving. So trying to put all of those into a framework that's useable, based on the research. And in those areas, there is a fair amount of research. For example, altitude training, I think the last time I checked, there's about 3000 references on that. Now, again, I'm not gonna sit here and tell you that I read all 3000 references. But I read more than several 100 in that area that again, were applicable to healthy humans looking to get better and be more resilient. So use research when it is available. The last part was okay, so what do you actually do with that? So that's all really good, because the answer is rarely the simple answer that everybody wants. Right? So if you take cold water immersion that we cover in the flex diet, I'm sorry, the flex cert. For cold water immersion, people want to know, is it good or bad? Again, what are you trying to do? Maybe for all out extreme hypertrophy, maybe not the best. But there's a bunch of caveats associated with that, too, that you must understand before you apply it. So the answer is almost rarely ever a simple thing of Oh, always do this or Oh, never do that. That's horrible. It's a usually complex, context specific based answer. So with the flextight cert and the fizz flexor, I have over 40 different action items for you and your clients to pick from. Now, again, all of these are arranged in a complete system, that we walk you through how to figure out which one is going to be



best for each particular client. That's part of the system. But it's not as easy as Oh, here's your one action item. Okay, so that may work for some clients, but maybe not somebody else. Right. So again, it has to be context specific. And that was probably the hardest part for me was to figure out a way to provide guidance, but I've worked with enough clients over the past. God coming up on 16 plus years now that I know not everyone is the same, but the fact is a certification is going out to a wide range of coaches, and even just a lot of fitness enthusiasts. So how do I get to The the correct action items, the intervention so that they do the thing, and that they see a benefit from it. So that was probably the hardest part to figure out. And so far, it's worked out pretty good. So we figured out a system and how to do that. But that's why there's 40 action items and not four, because they're going to be similar themed, but they're going to be a little bit different. And that's because you have to respect the context. And that while everyone is human, they're a little bit different. They have different needs, they have different experience of what they're adapted to in the past. So that's why we go through how to set those up. And the other part I wanted to include there is leverage based on time and effect size. No one really wants to spend a bunch of time doing something that's not going to move them closer to their goals. So how do I arrange them in a priority, where the higher priority items are first. And even the items that are listed in there, versus the ones that did not even get listed, are still going to move the needle closer to your or your client's goals. And if they can do that in less time, even better, right? So that's going to give you the high leverage points to work on. Which to me, that's the main reason people pay for a coach. They're saying, Hey, you know, a whole bunch of stuff about all this. Here's my goals. Out of all these, you know, hundreds of 1000s of things I could be doing, what are the things I'm going to invest my hour per day, hour and a half per day, hour every other day? Whatever time, I want you to help me figure out what are those things that are going to get me closer to my goals. So I'm not spending all this time, majoring in the minors. So that was taken into account there. So little background on my pet peeves and sort of problems I see with just current information out in the world, especially in more deeper dives, such as certifications, and shameless plug on, you know how in the certifications that I created. While we get around that, so that you know and understand the context, you understand the big picture, you have all the in depth details. And again, I'm not expecting people to understand all the technical terms. So we go through and we explain them and common language, but technical terms are used. So my bias there is to bring people up to a higher level, not necessarily trying to dumb everything down to the simplest thing, because people are smart, and they can spend time and they are able to understand it. The beauty of it being online is you can go back and repeat a couple areas. Or as of now, you can even just email me specific questions. So we have all the details and specific primers on that based on the research. And then we have 40 specific action items that are arranged in a system so that you or your clients are able to implement it in the fastest way possible with the highest amount of leverage. So that's some background

there. And as of this recording, this is Monday, September 13. The physiologic flexibility certification will be open for one week from September 13 through September 20 and go to [physiologic flexibility.com](https://physiologicflexibility.com). And you will get all the information. If you are listening outside of that time period, go to the same link [physiologic flexibility.com](https://physiologicflexibility.com). And you'll be able to get on the waitlist for the next time that it opens. As always, thank you so much. I really appreciate you listening. Take care. Talk to you soon.