# Paleo Solution-406

**[0:01:48]**

Robb:     Hey folks, six listeners can't be wrong. Another edition of Paleo Solution Podcast. Today's episode is really cool. I have not generally been a huge fan of many elements of the Quantified Self movement. I've seen a lot of people just get super out in the weeds and just kind of lose perspective off of what's important, what's actionable. But Dave Korsunsky who's the founder of Heads Up Health, this is an online platform for storing just every type of personal data that you might be interested in. He was on the show.

I met Dave almost two years ago at Aikido games event and he just really impressed me. The platform is interesting and that it provides some curation, like some direction around what you actually want to track. Dave actually put together a Wired to Eat portal so that if you follow Wired to Eat and you do the blood sugar testing to really slick easy way to monitor that information, but we covered a lot of different topics.

It's a cool program. Dave really knows his stuff, both on the coding and on the health side of things. He had his own health struggles to deal with which is largely what brought him to doing what he's doing. I think you'll find the show interesting. Dave Korsunsky of Heads Up Health. Dave, how are you doing man?

Dave:     Wonderful Robb. I'm glad we made it happen. I know we only live a few miles away from each other. I'm really glad that we're able to make this work and finally get some time together.

Robb:     Absolutely. Yeah. Sorry, it took so long to make all that happen. I think I have cancelled and rescheduled on you about 15 times, so apologies for that. We'll make this one extra, extra good. But Dave, where did we meet? Did we meet at the Aikido games seminar in Las Vegas about 18 months ago, two years ago now?

Dave:     We did Robb and we shared a moment over a Quest snickerdoodle cookie.

Robb:     Those are amazing.

Dave:     We were just at the conference there and shooting the shit and all kinds of stuff. I think there's a picture of us actually on your blog sitting at the back of the room eating a snickerdoodle cookie and some other low-carb friendly beverage nerding out about something. That was where we first started talking. We did a

blog post on your site actually where I picked up on the theme that you talked about there, which is this dichotomy between our ancient biology and this modern tech world.

I wrote on your blog about the difference between a Mac operating system and a Windows operating system. I think you brought that up somehow in the context and mapped it back to health, and I just kind of picked up on that, wrote the blog. We've been nerding out ever since.

Robb:    Yeah. Yeah. We have. We've had a ton of interaction. You've done some amazing work. Let's give a little bit of background so that people are-- I'm going to do an introduction after we wrap this thing up, but you are the founder of Heads Up Health. Describe what Heads Up Health is and what is the process you've been on the past couple of years developing this platform.

**[0:05:02]**

Dave:    Well, like all of us Robb, I had my moment, I had the all crap moment where I actually realized I was not invincible anymore and I had to very carefully measure my health. All of my blood work was stored in different conventional medicine patient portals. I was living in the Bay, so UCSF Stanford and a couple of others. But I was working with a functional medicine doctor in Texas and that functional doc had no access to the blood work. I was collecting a lot of data at home, blood pressure issues, it was some insulin resistance.

I was under extreme stress, so my blood pressure was high at 32. I was tracking all this stuff in a spreadsheet, but once it was in the spreadsheet, it became incredibly powerful and I could share that with the functional doc. Then the nerd in me just said, "How do I productize this?" That was right around the same time that we were getting electronic access to our medical records for the first time.

All that did Robb was glorified the spreadsheet and build a system where you can integrate all your medical records, all the data you're tracking at home. As you know, this is also highly individualized and personalized that I just realized it was a numbers game. Heads Up Health is just basically a data-driven place to store all your numbers, figure out what works for you and just use it to guide your progress.

Robb:    Awesome. Dave, you did a really awesome build out in support of Wired to Eat, can you walk folks through a little bit of what we did with that and kind of what the benefit is of having some sort of a portal like Heads Up Health to be able to collate and track your personal health and medical information?

Dave:       Yeah. Well, after I read the book, you had talked about the carb challenge, the seven-day carb challenge. That was something that my functional doctor had me do as well which was he called it the functional glucose tolerance test, which is different than the oral glucose tolerance test where you go to the doctor and drink sugar basically. Functional test was he's like, "Dude, go at your favorite breakfast and test your blood sugar 30, 60, 120 and send me the numbers." He wanted to know what I was eating and how my blood sugar was responding.

Very similar to what you were describing in the book around the carb challenge which is go test these foods and see how you respond. The amazing part was you referenced that study in Israel which showed just the individual variants between two people who at the exact same thing in the exact same quantity. We built a portal for Wired to Eat where you could come in and do the carb challenge, record the data for all of the tests and have it because those numbers might change in 24 months, and you may want to retest.

We put in some of the other metrics in there for things like waist circumference and carbohydrate intake from MyFitnessPal, weight body fat, blood sugar. We had the dashboard setup there and then what we did was we went through the book, and we looked at the blood tests that you recommend. We set it up so that you could track those blood tests as well. Go to Quest, go to LabCorp, go to whoever, get the blood tests and actually put them in.

Then do that again in six months and see how your body changes as you go on to a diet that is much more stable for you in terms of blood sugar and one that's personalized. We basically just built a portal to track the Wired to Eat metrics and you and I collaborated on it together. It's just an easy way for the average person to start seeing how all of this stuff fits together.

Robb:       Dave, it's always interesting to me and it's so frustrating and kind of heartbreaking, folks get blood work in the standard process is they're more confused after receiving it than before. The interpretive process is kind of crazy. It's funny, before we started recording, I was talking about some of the work we're doing with the Chickasaw folks and they were out in Reno recently.

Historically, when people get blood work at the, especially, health clinic, they get a report and some of the report, it's like green, red, yellow lights which has worked well with police and first responders and stuff like that. But the doctors were like really, really geek out on this. We have colors and this helps people interpret it. It's kind of funny because one of the folks with the Chickasaw delegation, he's been a super high level graphic designer, film editor, a marketing guy, spent a lot of time in Manhattan.

**[0:10:00]**

During one of our breaks, he came up to me and he was like, "Oh my God, the geeks are excited about colors." This stuff is the dark ages of trying to take information versus just some of the simple infographics that float around the internet that people put together. They're able to take some fairly complex information and then get it down into a really simple to consume format. This is one of the things that I think that folks are noodling on using some sort of a platform to store their data.

Heads Up Health is really interesting and that the user interface you have is so elegant and so simple. Some of the reports you can generate are just really slick. I have no financial tie to Heads Up Health Inc., etcetera, etcetera. But that was one of the things that when I first met you and you showed me some of the user interface, like it's really simple. If you get this data in the platform and then use some of the very intuitive methods of looking at that data, you actually get something out of it.

To your point about the Wired to Eat panel, if we're getting some trends, either beneficial or negative, you can really see that when you're inputting this information versus you need to have enough Excel expertise to input the data and generate an equation around it and everything, and try to get something out of it. Whereas the Heads Up Health platform really does all that stuff for you.

Dave: Well, I remember going to all of the quantified self meet-ups here in Silicon Valley for six years, from 2011 to 2015, I went to every QS meet up, everything I could find and the only people that were stitching their data together where these nerded out programmers that knew how to use the R programming language. I'm like, "How does that help the average Joe?" I'm not going to go learn a new coding language just so I can try to make some inferences from my health data, but that's actually been the state of our health care system for the past 50 years.

As you know, every medical facility is its own silo of data, so it's impossible to see the trends and things like insulin resistance and diabetes and autoimmune. Some of this condition take many years or decades to develop, but the problem is that we don't have many years or decades of trends in our medical records because they're in PDF files and patient portals that don't talk to each other. Once you put it all together, what we've noticed Robb, we thought that Heads Up Health would be for the biohackers and it's been a complete opposite. The biohackers are building their own tools.

This is for the average person who just needs to reverse their diabetes or work on some other insulin-based disorder. You don't have to be very medically sophisticated or you don't have to be technically savvy to know which numbers

need to go up or down. It's pretty simple. "Okay, I have this condition, this number needs to go down." I can take a prescription to move that number or I can do the lifestyle changes.

Yeah, just to pick up on what you said, you don't have to be very sophisticated to use this information. We just wanted to present it in a way that's consumable and accessible. We got users that are 80 years old and have never used a computer before, and they emailed me and they're crushing it. They've got everything dialed in. It's nice to see that if you put the information together for people, that they can use it and that it's accessible. That's the most rewarding part.

Robb:       That's awesome. You know what? It's funny because I've been very intrigued by, but also may be critical of the quantified self space because I've seen some folks just going off into the weeds. I mean, so buried in the data. But it's like, "Well dude, how do you feel?" They're like, "Well, my C-reactive protein is this." I'm like, "Okay, that's cool, but how do you feel?"

Dave:       Exactly. How is your energy level? Are you crashing every single day in life, in everything?

Robb:       Yeah. Again, the ability to track a huge number of variables that certainly exists in Heads Up Health, but you guys have done something that I haven't really seen anyone else do and that you've kind of curated the input. If you're in the low carb, then there's a way to-- The data kind of gets curated and kind of steers you in that direction.

If you're doing this Wired to Eat deal, kind of steers you down this direction. The cool thing, again, what people are not lacking in data, but they're lacking in kind of the wisdom interpretation and then like, "Okay. What do I actually do with this?" That's something that, again, I really appreciate with what you guys have built with the platform is that if you really want to start tracking gazillion different metrics, that can absolutely do it.

Or if you want to track those things that you can actually do something about, then you've set up these different interfaces. Again, there's kind of a curation process that leads you in a direction that gives you some actionable things to do, whether it's clinical medicine, diet or lifestyle changes.

**[0:15:27]**

Dave:       Like Elite HRV. Jason Moore, awesome dude. We just integrated Elite HRV into Heads Up Health. A lot of people have never even measured their heart rate variability. Just a great metric for longevity. Go try it out and see where your

numbers come in. Then see how your numbers look when you get a really, really good night sleep. Then see how your numbers look after you had may be one too many drinks. Then you get to see the patterns, you're like, "Oh, that's how my body responds to this and that."

Now, you're building this really beautiful awareness of your body and how it responds. Yeah, it's fun to just go in there and have a hypothesis about you, about Robb, about Dave. Go test it out and see what happens. We're just trying to integrate all of the really powerful technology out there so that the one or two things you like to use, you'll see them there, you can link them up, and you can start to learn more about yourself and how you respond to different situations.

If you do want to start looking at your blood work, you can. We've linked up all the different patient portals in the US. You can have those trends. But yeah, it's just a fun place to start learning about your own personal patterns. The more I go into this world Robb and you may notice the same thing, now we're starting to look at the genetic data as well. The SNPs that tell you how your body may respond, like the MTHFR SNIP or the SNPs about how your neurotransmitter levels respond.

The more I learn about this, the more I realize that it's all individualized. Making assumptions or generalizations about how somebody should do something is dangerous. I just think that it's unique to each of us and I think that's where the numbers become helpful.

Robb:         Absolutely. This is where I'm somewhat chagrined by all those because I've generally, for 20 years, I've recommended something akin to low carb, Paleo, maybe ketogenic approach and I still generally stand by that as a beginning place. I think about it like when we were little kids and you play tag, you have home base, like that was your safe spot. It's like when you're trying to affect some change, you've got to have somewhere to go.

Dave:         One hundred percent.

Robb:         The standard deal of eat less, move more, eat sensibly. Like, "What is that eat and meaning?" I think providing somebody a framework of generally whole unprocessed foods, may be a little bit lighter on the glycemic load. Let's at least use that as a starting place. But then the challenge and I feel like someone-- I feel like when you hang out with someone who tells the same story again and again and again and they don't remember that they're telling the same story.

But I am aware that I'm telling this story again, but it's the danger with these general guidelines is that people carved them into stone, turn them into religious

doctrine. Then when we start meeting nuance, which typically the need for the nuance is you use that big picture guidelines, whether it's Paleo or vegan or keto--

Dave:     Get in the ballpark. Step one, get in the park.

Robb:     Get in the ball park. But then when we start, "Okay. Well, this is working up until this point, but it's not working here, not working here, didn't we need some additional data?" That's typically blood work or looking at HRV or to your point, tracking some of these genetic variances and then we can get in a little bit more detailed. "Oh okay, you've got some folate metabolism issues, maybe we need to dose folate later, maybe we need to dose other co-factors like choline that supports folate metabolism and on and on."

Dave:     Yeah. That's where it gets individualized. I think, obviously, there's two sides to that coin because for some people it's overwhelming, it's too much information. A lot of people do not interpret data properly. They freak out, they just don't respond properly to the numbers. I obviously want to provide education to help minimize that.

          But I think the exciting part now is the amount of information that's available to people like you and I where you don't have to necessarily rely on one form of medicine anymore. I can just go get my nutrition genome report for $299. It's got all the summary information there. They recommend a clinician to me and that person will help me understand this information. That stuff just didn't exist a little while ago.

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          Then being able to look at your lab work and say, "Okay. Are my markers of folate methylation issues improving or not?" I think it's an exciting time because we have access to all of this technology. I think we need to continue to make sure we educate people on how to use this information properly so that they don't have an adverse reaction to it.

          I'm sure you know people who have just gotten way too bent out of shape about one number. It's a mosaic. You've really got to take it in context. That's important. But as consumers, as patients now, we have access to so much more than we did before around working on mental illness, around working on metabolic issues in ways that that just doesn't come from the standard of care. It's exciting that we have this stuff.

Robb:     It really is. Dave, this maybe gets a little technical or geeky, but how many-- I know LabCorp is a bugger as far as like API in getting a direct download, do you

have direct download access with different labs so that the person doesn't have to do the manual input? Does that exist in very many formats or is it still mainly a-- You're going to receive your report and then you're going to put that into Heads Up Health, somewhat manual?

Dave:      Yeah. Good news is we did get the LabCorp integration done.

Robb:      Oh nice, nice. That is not an easy thing. Our clinic is still working up on that.

Dave:      They actually built a completely new patient portal. That new patient portal actually has a really, really high quality API. That was a problem before, I just think they had an out-of-date portal. All of the LabCorp users now, when you go sign in to access your blood work, you get redirected to the new portal. They were kind of like the last holdout.

But within our system, you can link up LabCorp, you can link up Quest, Walgreens, CVS and Stanford UCSF, Cleveland Clinic, Johns Hopkins. There's over 90% of the medical providers in the United States now have patient portals with APIs, which we're moving towards 100% adaption which is amazing. Those are all link-- I have five connected because I have Quest, I have LabCorp, I have UCSF, I have Stanford. They're all now electronically linked. They link just like you'd connect your bank account to Mint.com.

For those who aren't familiar, that's basically now where the medical providers have moved towards. Hallelujah, that it finally happens, these ancient systems. The problem is just like in consumer banking, all of these medical providers send us the data in different formats. We get 30,000 formats throwing at us for a cholesterol test; reference, ranges and all kinds of weird stuff. We clean all that up for you so that you can just link them all up, see the trends. When you can see back five, ten, 15 years on certain lab tests where as your current provider, maybe they only have two years of history.

Maybe Robb, your doctor in Reno, you've only got two years of history at that lab, but once you start looking back, five, ten, 15 years, you're like, "Wow. The patterns and the signs were there a long time ago and they got missed because providers don't have my full history." Now, we had patients that go in and be like, "Here it is dude." Boom. Right on the desk. Here's 15 years, that test has been going down for ten years and nobody noticed it. That's powerful stuff when we can give patients that information.

Robb:      Absolutely. Again, maybe for most folks, thankfully, you don't have to appreciate the power that getting these API integrations offer, but we for a long time and I'm almost embarrassed to admit this, but because we do the bulk of our business with LabCorp because of the NMR and the LPIR, LDL-P which we find it

to be incredibly powerful in looking at insulin resistance and systemic inflammation, all kinds of stuff like that. But they would send us a PDF and then we had meat bots entering this stuff by hand.

When I found that out, I was just horrified. I'm like, "Oh my God." This is the highest error rate of this whole thing. The fact that we're rounding that corner on the integration so that just these things handshake, uploads, downloads data seamlessly. It's virtually impossible for a mistake to be made in that regard. It's really a huge deal. Dave, maybe walk people through what it would look like using Heads Up Health.

Every once in a while, fire off a social media paying about like the Wired to Eat panel and they can go to Especially Health, they can order that particular panel. After they've ordered that, they're given a lab request which they take to their local LabCorp, they get blood work run. That goes off to LabCorp and then that information is going to be deposited to them or potentially to you guys. Where does it go from there? How does that process there?

**[0:25:26]**

Dave:      Yeah. Sure. You would basically sign in to our system. One of the first questions we'd say is, "Robb, where are your medical records? Would you like to search our database?" You would basically just click on LabCorp. All we would need is your LabCorp username and password. If you've never used LabCorp before to look at your results, you just go to their website and register. If you just logged into their portal before, you already have a username and password.

You log in to Heads Up Health, you click on LabCorp, you authenticate, we will download all of your historical test results from the LabCorp portal, even the ones that were separate from the Wired to Eat panel. Then maybe you had some blood work at Quest with a different doctor, so you would connect Quest. Then you could search and be like, "Oh yeah, I lived over in Boston for a few years and had some blood work done here." You would connect that doctor's office, if you wanted to.

Then you could say, "Yeah, I'm tracking my carb intake with MyFitnessPal. I'd like to connect that. I'm using some other devices, Apple Watch, Elite HRV, Oura ring, whatever you're measuring at home. One of the things that I believe is that you need to show people their lifestyle choices next to their clinical markers. I think that's where you were going with Wired to Eat as well, which is, "Let's take some body composition, some waist circumference measurements, then let's do a nutritional intervention and then let's re-measure." You put the lifestyle data in, you put the blood test data in and then you figure out how to optimize.

Robb:	Awesome. Awesome. Dave, this is kind of a thorny, thorny topic but different-- I'm thinking about some of these things like killing Madison and stuff like that. People have had their personal data in there and then the thing gets breached and their data is out there. How secure is the stuff? What type of steps do you take? I know that this is one of the continuing challenges of the EMR format on the medical records format. There is the potential that this stuff can get disseminated far and wide. How are you guys working to ensure that client safety with regards to their data?

Dave:	Well, we have to play by the same rules that Stanford or LabCorp or any of these facilities do. To take it one step further Robb, we don't actually store any of that clinical information in our system. When Robb logs in, we just initiate a query after you log in. We fetch the data for the duration of your session so you can see it. Then when you log out, it's destroyed.

	The exception to that is if you enter some of your results manually. Like for instance, maybe there's a blood panel that you had and we just can't sync that data, it's from a doctor that we don't integrate with. You can enter that data manually if you want to so you can trend it next to everything else. That information would be in the database and it's all running in Amazon, AWS. It's all encrypted.

	We have the business associate agreements in place with Amazon. For the manually-entered stuff, that that would be in an encrypted Amazon storage. The rest of the stuff, we don't want to store it and that just exposes our liability. We don't store that stuff at all. If you connected LabCorp to your account and then someone access to the Heads Up Health, there's actually nothing there for the clinical part of it. It stays in that poor system.

Robb:	Got you. Got you.

Dave:	Now, if they hack into LabCorp, we can't really control that.

Robb:	Different story. Right. Right. Right. Right. Yeah, totally different story. Yeah. Dave, who is your typical user with Heads Up Health?

Dave:	As I mentioned, we sat down to think through this concept a long time ago and thought it would be the data nerds that would gravitate towards this. It's been the opposite. It's been somebody with one or more insulin resistance related disorders. They're 40 to 65, 70 years of age. They're all over the United States, non-sophisticated, non-technical people that have heard or inquired about how to reverse these issues themselves. They just start doing it. Yeah, it's just one or more chronic conditions.

Typically, a condition related to blood sugar, although we do have a lot of other conditions such as cancer and epilepsy where people are using ketogenic therapies for those conditions because we've built a lot of very specific features for those people. The bulk of them though are just your average person who's working on a blood sugar disorder and they're using MyFitnessPal to track their carbs, they're measuring their blood sugar. Maybe tracking ketones, maybe not. They're getting their blood work for their doctor and they're killing it.

**[0:30:42]**

Robb: Awesome. Awesome. That's super cool. Yeah. I seem to remember you mentioning when we first met that there was definitely this disproportionate buy-in from the keto low-carb scene, Paleo scene which kind of makes sense. Those folks are kind of years forward. Usually, they will end up doing that stuff because we're sick and you kind of do the standard of care and it generally doesn't work all that well, so you keep digging around. I'm not surprised that that is somewhat disproportionately-- The folks that are checking out Heads Up Health.

Dave: Yeah. If you're following the standard of care, you probably have no use for our system because you're going to the doctor and you're following that path. But once you decide, "Okay. I want to try something different. I want to try a lifestyle intervention that's not recommended by my doctor or they're not knowledgeable about it." Those are the people that then find us so that we can help them become self-directed in that approach.

Robb: Nice. Nice. Dave, how does the Heads Up Health structure work? Is there a freemium model and then a premium model like if folks wanted to check out Heads Up Health? How does that process work?

Dave: Yeah. Anyone can just sign up, use it for 30 days, use every single feature in there. If you like it, you can subscribe. If you don't subscribe, then your account will just basically stop updating. Maybe you come back a month or three months later, everything is there, it's just it stops updating until you subscribe. Honestly Robb, like we thought about doing these freemium models, but it's complicated, like you start obsessing over which feature is in the free and the pay. It's like, "Man, I don't have time for that crap." If you like it, use it. If you don't, don't. Thirty days, you can see what we're all about and try it out, and go from there.

Robb: I remember when Nicky was a co-founder of a tech start-up, that was a constant bit of sand being thrown in the gears like, "Okay. What's the level of access so that people can kick the tires?" To your point, see if these things helpful or if it's not really the right--

| Dave: | You don't have the resources to start going crazy on different tiers, in which features are, in which tiers? Maybe someday we'll get there, but this was just the simplest way for us to put the product in the market. |
|---|---|
| Robb: | It's pretty transparent. If you like it, use it. If you don't, go find something else. Yeah, that seems-- |
| Dave: | Yeah. The spreadsheet is a cheaper option. There's always that. That's the way we set it up for now Robb, that might change. But for now, that's the way people can get access to it. We're always looking for new devices to integrate and new partners, and just trying to make actually health data fun and engaging. It is kind of fun and nerdy once you start seeing your numbers improved. If we can make the world nerd out on their health stats, I think that's a win. |
| Robb: | Like a big, big win. Yeah. Yeah. Dave, let folks know where they can track you down. You have your own podcast, let them know where to find Heads Up Health. Give them all that that social media context stuff so that they can look-- |
| Dave: | Yeah. Cool. We started our show, Data-Driven Health Radio, which is really just helping people understand the numbers. Like you said, "Okay. I got these lab results back and I'm more confused than I was before." We talk a lot about what the numbers mean, how to interpret it. That's on Data-Driven Health Radio. Then if anyone has questions about our system, I'm pretty accessible, [dave@headsuphealth.com](mailto:dave@headsuphealth.com). If you want to try us out, go over there, sign up and kick the tires, send us some feedback and we'd love to hear from you. |
| Robb: | Awesome. Awesome. Dave, I look forward to seeing you in real life. I think we literally live maybe about 12, 15 miles apart-- |
| Dave: | I'm in Reno once a week. I know we can make this happen if we intend to. Yeah, it's great being neighbors with you and I'd love to buy you a coffee or some other beverage of choice in Reno sometime. That'd be awesome. If you're ever going to make it to Truckee, come do some mountain biking or some snowboarding, open invite any time brother. |
| Robb: | Cool. Cool. We'll make that happen. But David, again, super have been impressed with all the work you have done since the first day that I've met you and just honestly kind of flabbergasted and jaw dropped with how much progress you've made since we've met. Really excited to see where Heads Up Health goes. Again, looking forward to shaking it down for a beverage at some point. |
| Dave: | Sounds great, Robb. Always a pleasure, man. |

Robb:          Take care. We'll talk to you soon.

**[0:35:28]     End of Audio**