Sustain BP Health With Supervised Fasting Transcript

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Introduction to Fasting and Dr. Goldhamer

All right. Welcome back. And today, I'm excited to interview literally the expert in fasting has run fasting on the TrueNorth Center for many, many years.

And Dr. Alan Goldhamer, how are you today? Doing great. Wonderful. Well, I'm really excited to dive into the world of fasting because it's been a huge topic, really becoming more popular in the more recent years.

So maybe we can kind of get into the nuances of it specifically, of course, around high blood pressure, but other health conditions as well. So what are the physiological mechanisms by which fasting might influence blood pressure levels or any health condition in general?

Well, yeah, you know, fasting has become more popular, particularly intermittent fasting where people do you know, limited feeding windows. What we're doing is a little bit different because it's prolonged, medically supervised water only fasts where people are on water only from 5 to 40 days.

And during this period of prolonged water, only fasting, there is a big physiological adaptation that takes place and there's a lot of changes that are occurring physiologically.

How Prolonged Water Fasting Affects the Body

You know, one of the most obvious changes is the the primary source of your glucose changes to being fat, the set of specifically beta hydroxybutyrate gases in the brain.

So your brain's your biggest burner of glucose and it changes to where by the end of the second week of fasting, the majority of calories are actually being burned as fat.

And so that is a huge adaptation. This ketonic environment changes the body's immune response. That affects the gut microbiome. It has effects on all kinds of downstream physiological adaptations, not the least of which is is a natural, radical effect where the body selectively mobilizes excessive amounts of sodium and gets rid of them very much like a diuretic does only more powerfully.

And as the blood sodium levels, as the as the excess sodium levels drop, blood volume drops. As the blood volume drops, blood pressure normalizes, congestive heart failure starts to ease.

The Non-Healing wounds start to heal that you see in diabetics that, you know, it's just a profound change. And of course, the hypoglycemic response often associated with diabetes is also ameliorated because you're going to ketonic environment.

And so the insulin resistance that's associated with type two diabetes is profoundly affected. Insulin resistance is reduced. And so that's why, you know, as much as 80% of our type two diabetics, which, you know, butchered without medication after fasting, now, of course, they're still have to keep eating well in order to maintain the results of their problems.

You're going to return. But fasting is kind of a great filter. It's like taking a corrupted hard drive on a computer and you shut the computer off and when you turn it back on, you may not know exactly why, but things are starting to work again.

And that's kind of what happens to the body physiologically in fasting, whether it's the sodium that you're having a factor, the alteration in gut microbiome, you know, you think about the 5 pounds of creatures living in your intestinal tract, the bacteria, the protozoa, the trillion plus creatures, these living organisms that are swimming around inside

you and eating and drinking and defecating in you as we speak.

Those organisms profoundly are reduced during fasting, and then when you refeed after fasting, you can regrow the normal 10,000 strain of bacteria that are populating a healthy person's gut rather than the altered microbiome that is dominating in people that are living on meat, fish fowl, eggs, dairy products.

Also, on sugar. You know, a big part of the reason why people are probably having difficulties with the standard American diet is because of its impact, not just on general toxicity that is endogenous.

exogenous poisons, but also the organisms that play such a profound part in our immune system. So this is speaking to the prolonged fast. What is the difference between someone maybe who can engage in intermittent fasting versus that prolonged fast?

There are things that we can see and either one. We also recommend intermittent fasting for everyone. We think everybody should fast every day for between 12 and 16 hours, depending on what your goals are.

So that means you're limiting your feeding window to 8 hours a day, which means you don't eat 3 to 4 hours before you go to sleep. And if you do that, you can burn the calories you eat.

You don't end up having to have sleep quality disruption from having to deal with digestion and urination, defecation, etc. during the evenings. And so that intermittent fasting is thought cumulatively, day after day after day, to have some of these same kind of effects that long term fasting has, it's just something you can do on your own.

You can do it safely, doesn't require modification of your existing medical management procedures, and it is a much gentler, safer, milder kind of intervention.

But it doesn't have the same profound effect that we see over a shorter term in long term fasting. If you're trying to break a tumor down, you're trying to normalize insulin resistance, which can take weeks or months of careful feeding and intermittent fasting, can sometimes happening much more rapidly with water only fasting.

So it's a little bit more dramatic. I consider it much more entertaining. All right. So what would you consider a prolonged fast? I think in 5 to 40 days, we don't typically go longer than 40 days in our facility.

We arbitrarily stop it there.

Intermittent Fasting vs. Prolonged Fasting

The gentleman I trained with, Alec Burton, didn't fast people over 40 days when I was there. He used to he tracked people to 100 days or longer and I asked him why he was no longer doing that.

And he said because of the sleep deprivation. And I said, Oh, I didn't realize patients had more trouble sleeping on very long fasting. It was not that patients may.

And what happens is after 40 days, you get into more and more concerns physiologically and what happens, you have to monitor it much more carefully. There's more things that can go awry if you keep the fast short.

What we consider short, that is up to 40 days. It's a very safe process. In fact, we've had over 25,000 people now undergo fasting at TrueNorth health And of the 25,000 people that walked in, 25,000 people have walked out.

And we've actually published a fasting safety study that shows that fasting is, in fact, a safe process when using this protocol. But that means we don't fast over 40 days.

Everybody has a proper history exam lab and monitoring are examined twice a day by our staff doctors during their stay. It's a it's a closed environment.

So, you know, they're able to control their environment as well as the input and stresses on their system during the fasting process. So when that's done properly, it is a safe process, but it does mean that you only fast people are appropriate candidates for fasting.

Not everybody is a candidate for fasting and the only way you can determine that is through history, exam and laboratory testing. What would it be an ideal candidate for someone to come to TrueNorth, for example.

So the the people that we do the most work with are people that have high blood pressure, cardiovascular disease, type two diabetes, autoimmune disorders like rheumatoid arthritis.

And I was inspired to add some asthma eczema at these kinds of conditions and some types of cancer, including lymphoma. Those are what we've published outcome data on.

So in terms of conditions, conditions associated with dietary excess tend to respond really well to fasting because fasting like exercise and careful eating gets rid of the consequence of dietary excess and dietary excess is why these conditions develop.

So what happens is people get fat and they get a certain type of fat called visceral fat that has the produces inflammatory markers like IL-6 and TNF Alpha, etc.

And that's what causes the cardiovascular disease, diabetes, the autoimmune disease and these forms of cancer. So it's not shocking that when you fast and you get rid of the dietary excess and the visceral fat that these conditions reverse.

In fact, we've published a study that shows that not only is visceral, fat mobilized during fasting, but it's preferentially mobilized during water only fasting.

Who Is a Candidate for Extended Fasting

The ratio of visceral fat to adipose tissue is 3 to 1, actually. And so that a person that goes on to a 15 day fasting loses 20% of their total body fat, but with 50% or more of their visceral fat.

So this particularly nasty type of material, this visceral fat, is preferentially eliminated during water fasting. So again, you can get a lot of change in a short time.

And then the downstream consequence in terms of disease modification is also apparent. Is there any part of the fasting protocol that you've seen work better with hypertension is that they all have to do ten days or 12 days.

Like where is there a particular number of days or anything? I'm curious on those. It's a really individual process and it's from 5 to 40 days and you don't know exactly how long is ideal until you see how the person responds to fasting.

Obviously a very thin person who's BMI is, say 17 wouldn't be fasting as long as a person whose BMI is 35 or 50, so depending on resource. But it also depends on their micronutrient capacity and how well they maintain electrolytes, what their kidney function looks like, what other concomitant diseases are associated with it, how well they do both physically and psychologically.

Because, you know, basically people are addicts. They're addicted to the artificial stimulation of doping in the brain, whether it's heroin or cocaine or alcohol or the chemicals added to food that make us fat, sick and miserable.

And those chemicals are salt, oil and sugar. Salt oil and sugar are not food. They're chemicals added to food or hyper concentrated food byproducts that are put back into food to stimulate dopamine production in the brain and make us feel good.

But so you have to keep in mind that if you're trying to change that, whether it's quitting smoking, quitting drinking

or stopping eating salt with sugar, it's going to be very difficult because at first you're eating those substances, you're taking those drugs to feel good, but eventually you have to keep taking them to avoid feeling very bad, which is the hallmark of addiction and withdrawal.

And when you stop eating salt only, sure, you'll know it and your brain knows it. And it's hard. It's tough business and fasting makes that much easier for people that quit smoking.

For example, during fasting, oftentimes within 48 hours have no cravings. Alcohol withdrawal, heroin withdrawal, cocaine withdrawal is greatly facilitated.

And, you know, some people say, well, that's because you're so miserable and fast and you don't even think about the drugs and and alcohol. But and that might be partially true, but mostly it's because these metabolic products are processed much more rapidly during fasting.

There's a rapid detoxification both of endogenous and exogenous toxins drink fasting. Wow. So how do you deal with the medication? So someone is coming in to, let's say, do a fast in.

They're on three blood pressure medications because that's what it takes. How do you handle the medications? Like one of the first. Step is you get people on a vegan S. O. S.

free diet and then within days you have to withdraw medications because otherwise they'll be crashing because people are not being medicated for their blood pressure, they're being medicated for the diet they're eating that causes them to sustain their blood pressure.

And the moment you change that diet, their blood pressure starts coming down. And most patients, we can have them weaned off medications within a few days.

Hypertension Outcomes and Medication Withdrawal

And then once you start fasting, there's a profound drop. So you do not fast on these medications. Fasting on medications can be extremely dangerous because medications can be greatly potentiated during fasting, and it's also not necessary because, you know, the short term issues with elevated blood pressure are relatively low risk issues and their blood pressure drops so rapidly fasting that most people are below those hypertensive thresholds within within just a question of days.

But in our studies, we actually did a study with the Mayo Clinic looking at subjects for the treatment of hypertension. And although occasionally you'll see people have a little rebound blip of blood pressure as they come off their medication, none of that in none of those patients didn't last more than a day.

And all of those patients of the 30 people that did the study, 29 that completed the fasting, 28 of those people had normal blood pressure without medications.

In a six week follow up, 28 to 29 had normal blood pressure. One person had to restore 50% of their doses on medication. And what's even more impressive, we followed those people at one year where they were back home, three living.

And of the people on follow up on the 75% of those people had maintained their weight loss, their blood pressure in their drug free state. So it shows you that not only can people get, well, fasting, they're actually able to sustain the dietary changes and sustain the normal blood pressure a year later.

So this is definitely no brainer. These are highly motivated patients because they're willing to fast. They're not the people you drive off the street, but for highly motivated people willing to do dangerous and radical things like eat well and exercise and go to bed on time, they can normalize their blood pressure in almost every case.

And those that are willing to maintain the diet lifestyle can sustain those results indefinitely and without the

medications that are causing them. Chronic fatigue, impotence and premature death.

Wow. That is pretty incredible. How many days how long was it fast for these folks to many go to 40 days or what was the average fast in your study. Ranges from 5 to 40 days, but the majority of people are fasting 2 to 3 weeks.

To three. O'clock. You know, most people do not need to fast 40 days. In fact, most people that wouldn't be appropriate because they don't have the reserves and capacity for that.

But, you know, typical blood pressure patient that's coming in with hypertension and medications within a 2 to 3 week period of fasting or even to have normal blood pressure without medication.

To so. 174 consecutive patients. We did this with Colin Campbell from Cornell. Of the 174 people with hypertension, 174 people achieved normal blood pressure without medication.

Meeting the single. Largest affects that have ever been shown in treating hypertension in humans with an average impact size of over 60 points in stage three hypertension.

Wow. Look, the point is, there is nothing that's been shown to be more effective at normalizing high blood pressure in humans than to do water only fasting, followed by a whole plant food S. O. S.

for your diet. Excellent. So what does a fasting have on other cardiovascular risk, like cholesterol, inflammation? What are you seeing there? So during fasting, of course, the body generates an acute healing response.

So inflammatory markers, as you would expect, go up. And then when you follow it at six weeks post fasting, not only do they normalize, but they actually reduce down to more normal levels.

So that's where you also see tremendous benefit in autoimmune diseases and inflammatory conditions like rheumatoid arthritis, ulcerative colitis, asthma, eczema.

These kind of conditions respond profoundly during fasting. And to the degree that people are willing to go on a whole plant food diet, they're able to sustain those results often after fasting.

So during fasting it can be a very intense process because the body will take chronic problems and they'll become acute as the body resolves. And so your acute phase, regular proteins will go up.

Cholesterol, for example, will often go up in people as they mobilize cholesterol plaques in their vessels that goes into the bloodstream temporarily.

But then if you look at them six weeks post fasting, not only is it normalized, it's often reduced dramatically, sometimes as much as 100 milligrams percent.

Wow. So is there any concern about muscle loss during the prolonged fasting? Yeah, in fact, we were so concerned about that because there was common concerns that people would atrophy.

So we did a study and we actually brought in a DEXA scanner for two years and we monitored a number of patients before fasting, after fasting and on follow up.

And what we found was that when you go on a fast, you lose a bunch of weight around a day. On average, some of that is fat and visceral fat. Some of it's water, some of it's fiber, glycogen and protein.

And then when you come off that fast, you gain a bunch of weight, but you do not gain fat. What you gain is lean tissue or water. Glycogen and fiber in your gut.

Effects on Inflammation, Cholesterol, and Muscle Mass

And in fact, when we looked at the patients weight loss and body composition changes at six weeks after fasting and they obviously lost substantial amounts of weight, they lost 20% of their fat, 55% of their visceral fat, only 4% of lean tissue.

But that lean tissue was not only recovered by six weeks, but it was actually a higher proportion of their body to lean. Tissue was higher at six weeks.

That professor, than it was at baseline. The bone density had not changed and the only thing that had been lost was fat and visceral. Fat water, fiber, glycogen are that is the weight that comes back after fasting, not fat, assuming you're eating healthy.

Now, if you went back on some greasy, slimy, dead, decaying flesh that Dr. Atkins diet type thing, you certainly you could gain fat back. But if you're eating a whole plant food diet that's free of salt and sugar, you continue to lose weight down to optimum weight.

Gotcha. So also, you said they're being monitored medically. What are you looking for? Are there signs in someone should come off that fast or they're okay to continue?

What what exactly does that look like? So first of all, we have a detailed medical history exam and based on laboratory studies and we've got electrolytes, liver function, kidney function, urinalysis, etc..

And then we're monitoring the patients twice a day. So the doctors examine the patient, they interview them, they take their vitals. We do appropriate lab and urine monitoring as well as other diagnostic testing as indicated.

And so there's a number of things that we have to watch out for in fasting. Typically the rate limiting factors are electrolytes. So we're monitoring your electrolytes, including sodium and chloride and potassium and calcium and magnesium, etc..

And then also the we're looking at liver and kidney function in general. So you're looking at our filtration rates and creating levels, making sure that the body is adapting the fasting state appropriately.

If if things get outside our protocols, then we would either move on to broth and juices or terminate the fast moving to re feeding. And as I said, we've done this 25,000 times, including with very seriously ill patients.

And to date anyway, everybody that walks in, walks out. So we know we can do it safely. We've got a fasting safety study that actually looks at all the adverse events and what happens in fasting, what's anticipated.

And so but it does important, for example, that people restrict fasting because if you're too active, you will dramatically increase gluconeogenesis, which is the breakdown of protein.

So one of the reasons we avoid excess lean tissue loss is because we have people in a controlled setting and they're resting. They're not driving and running around getting into trouble.

You're not taking medications during fasting. So you have to have patients that you can stabilize off medications and you're monitoring patients appropriately so they don't get dehydrated.

Hydration is one of the critical issues in fasting. And so a person that becomes dehydrated and you'd be more vulnerable to dehydration, fasting than feeding because you're you're only consuming water.

You're not taking in outside electrolytes, etc.. You have to count on recycling. So if you were to be too energetic during fasting, you could become dehydrated.

Dehydration, of course, is a real serious problem. So we're monitoring a person's pulse, not only their pulse rate, but also their pulse volume. We're looking at their urine, their specific gravity.

There's a lot of indications of physical hydration, not the least of which is the person's ability to function and carry on, you know, in a in a controlled setting.

Right, exactly. Yeah. I think the controlled setting pieces are so important. So and then the most important part of fasting is actually retreating. So to rapid a return to feeding after fasting can be a very serious or fatal.

Medical Monitoring and Safe Refeeding

There's a process called reef feeding syndrome, which, you know, people found out when they liberated the concentration camps that people had been starved and then they rapidly read the reef, relevant them and then they would get into serious problems, electrolyte balance, cardiac arrest, etc..

So it's very important that the protocol before it takes half the length of the fast with carefully controlled re feeding to ensure that that doesn't happen. No.

In the 25,000 patients that we've done fasting up to 40 days, we've never had a reef feeding syndrome. So we know that using this protocol appears to be a way of avoiding that.

What is that protocol actually entails? It brought we start with one day of fresh fruit and vegetable juices for every 7 to 10 days of fasting, one day of raw fruit and vegetables for every 7 to 10 days of fasting.

Then we introduce steamed vegetables and we introduce starchy vegetables. Then we introduce more concentrated foods. And there's never any meat, fish, bell eggs, dairy products, all sorts of sugar are used with these patients during or hopefully after fast.

Gotcha. Okay. So the time they let's say they did a 20 day fast, it would take them about ten days to get to back to where they'd been exclusively whole plant foods so has free diet ad libitum.

Okay so you just starting with the juices and then slowly going in. From there more concentrated foods. Now there are some exceptions. If you have a patient with, say, sort of colitis, they may not handle raw fruit and vegetables.

So we may need to go to more steamed and starchy vegetables. But we still follow the principle, which is keep look density low, allow people system to gear up, don't let them over consume so they get into re feeding syndrome or food shock post fasting edema is another problem if people get into salty stuff.

If they went out, ate a bunch of say, V8 juice or a soup at a restaurant, they could get post fast edema where they would hold fluid retention, their legs would swell, they could put themselves in, they can just start to have problems.

So we avoid that by not giving people fluids that they shouldn't be eating. Well. Okay. Are there any populations or individual cases where fasting is an intervention, let's say, for hypertension or anything else that would be contraindicated?

Like where do you what would you say? Nope, this is not going to work. Well, if you're pregnant and lactating, you have to be very careful with fasting.

You lose your milk production. It could be a really significant problem if you have genetic defects like AMC had medium chain of pseudo coins that may dehydrogenase deficiency.

You wouldn't go to break down fatty acids, so you couldn't fast because you have to go to break down fatty acids to get into fasting. If you have depletion or Texea, where you have a depletion of micronutrients, you know, that would be a problem cause you wouldn't be able, even if you're recycling them, if you don't have enough to begin with, it's a problem.

If you have anorexia nervosa, this would you might want to fast, but that would not be a condition that's going to be responsive to fasting if you have problems with cardiac instability.

So try anticoagulant therapy. So you had DVT, pulmonary embolism, atrial fibrillation. You can't just arbitrarily stop any particular therapy without the risk of throwing a clot, having a stroke or heart attack.

And you can't fast on those medications because they can become potentiated. So those people, you would have to do a different program, reduce fasting, a modified feeding program, or get them healthy enough that you could stabilize or cardiac instability to the point where they no longer needed to be on any particular therapy.

Then you could introduce fasting, but that might take weeks, months, or even years. If people are on heavy steroid therapy, for example, you can't just stop steroids because you put them into failure.

So you have to wean them off that. And that might again require a modified feeding regime. Some of our people here for weeks or months, healthy eating program, just will get them off their medications.

Neuropsychiatric medications are no exception. People who are on certain intake inhibitor medications for long periods of time. If you just stop it, they're going to get acute depression, anxiety, because these drugs do brain damage and they deactivate the D2 receptors in the brain.

And so when you try to stop them, you get the very symptoms you're trying to treat acute depression and anxiety. They don't kind of tell you that when they first started on these medications.

But for people that are interested, they can read the book Anatomy of an Epidemic and learn all about how we've created an epidemic of mental illness around our use of drugs like Prozac.

You know, that's actually creating problems far worse than what we're actually trying to treat in some cases. So do you have any advice for someone maybe who can't come to your center or go to a fasting center that maybe they want to try, you know, up to that five days on their own?

Well, what we recommend for people is that they fast every day for 16 hours and then eat for 8 hours. If they're going to extend that, then they still need to get a history exam and labs So they need to work with their doctor to make sure, one, they're a good candidate for fasting too If they're on medications, those medications are addressed appropriately.

Contraindications and At-Home Fasting Guidance

And number three, that they have provisions for money because even shorter term fasting can run into difficulties, particularly for people with health challenges.

We do offer, though, we have doctors on our staff that will work with the patient's local doctor to provide remote fasting supervision when it's appropriate and so they can work with one of our doctors, like Dr.

Justin Wise, who can provide them coaching. But they still need to have a local doctor that will provide baseline lab exam and, you know, the things you can't do remotely.

But that does work well for people that are good candidates for fasting that don't want to come to an inpatient facility but still want to benefit from it.

They still have to rest. They still have to do do everything right. They still have to be careful about re feeding and hydration. They still need to have appropriate support and monitoring.

But unfortunately, I get a lot of calls from people that are well intentioned but misguided. And so they're doing fasting, going into trouble because they fasted on medications, they get into a little healing crisis, and then they end up being hyper hydrated by some well-meaning but misguided physician in some emergency room somewhere, but doesn't really understand what they're looking at because they're not used to looking at fasting patients.

So for those patients they can go to our website healthpromoting.com complete the registration forms I talk to them

give them a free phone conversation to discuss whether it's appropriate.

If if it is, we can hook them up with either a local something closer to them if we're too far away or with one of our remote doctors that can work with them remotely.

Very good. So finally, I just was meant to ask questions. So, you know, given the increasing popularity of fasting for weight loss and metabolic health, how can medical professionals help guide them?

So what should lets say Doctors want to help or interested? Where can they go? For more information? One thing they can do is they can go to our website at fasting.org, which is fasting compendium site.

All the research and literature on fasting is collected. It's all freely available. They can call me any time. I'm happy to talk to any any clinician that is interested in pursuing this.

We have a residency training program through to our health. We're doctors with no cost. We are the foundation provides them room, board and training at no cost to the doctor where they can undergo training and learn how to use fasting effectively and the use of a whole plant food diet.

We have a couple hundred doctors that have completed that training.

Resources for Clinicians and Closing Remarks

And and that's a great way of, you know, expanding your experience and getting a chance to actually do something that many doctors never get to do and that see people get well, you know, most doctors will tell you they've been treating hypertension, diabetes their whole career and they may never have seen anybody get well because under medical care, you never get well.

They guarantee you'll never get well because they say, look, take these drugs, you will be on these drugs the rest of your life. I promise you, you do what you're told.

You'll never recover. And that's true for diabetes, hypertension, autoimmune disease. That's kind of the standard medical care. It's giving drugs that don't resolve the actual cause of the problem, manage some of the secondary symptoms.

And, you know, it's a very different experience when you actually get people to make the diet lifestyle changes so the body can actually heal itself. Well, you know, I echo everything you're saying.

It's that's part of the joy of practicing using a whole food plant based diet and lifestyle medicine is actually seeing people get well. So but thank you so much for your time today, Dr.

Goldhamer. And we're excited for people to further, you know, look into the resources you have and could you say that one more time? What were the two domains.

We have, you know, primary website, trueNorthHealth.com will get them everything they need. And on that website, you know, they can link to a fasting.org which is the fasting compendium website, which is basically research articles.

Awesome. Perfect. And thank you again, everyone for listening and looking forward to the next conversation.