Your Guide To Drink Choices & BP Impact Transcript

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Introduction and hypertension overview

All right. Welcome back for another wonderful conversation we're about to have with the Dr. Michael Greger, from NutritionFacts.org. How are you today, Dr. Greger?

I'm doing great. Let's do this. Awesome. Well, we'll just jump right in. So, Dr. Greger, for our audience, who may not be familiar, could you explain what hypertension is, including let's say maybe it's more primary causes and risk and what's why it's actually considered a major public health issue?

Yeah, actually, the number one risk factor for death in the world is high blood pressure, also known as hypertension, high blood pressure. There's ways to about 9 million people worldwide every year.

And the reason it kills so many people because it contributes to death from such a variety of different causes, including aneurysms, heart attacks, heart failure, kidney failure and stroke predominantly.

So, you know, you probably had your blood pressure taken at your doctor's office. Two numbers, you know, like 115 over 85 or whatever the top is, the systolic, the bottom is the diastolic, the the the the kind of the normal or ideal or resting blood pressure you typically hear about is 120 over 80 with 135 over 90 being considered kind of hypertensive these days.

But the ideal blood pressure, I mean, we don't want a normal pressure in a society where it's normal to drop dead of a heart attack or stroke. Some of the leading killers really want ideal blood pressure and so ideal we really want to push our blood pressures down to about one.

Ten over 70 is probably the ideal blood pressure.

Dietary causes and sodium reduction

And we can do that through diet and lifestyle interventions. Perfect till this gets to my next question. So in your extensive research into nutrition and health, what specific foods or dietary patterns have you found to contribute most significantly to the development of hypertension?

Oh, well, probably the number one thing that we should all do is cut down on sodium. The American Heart Association recommends that we only get 1500 milligrams a day, which is almost impossible for eating lots of processed foods or eating out.

And so so that's that's probably one of the most important things if you do like adding salt on the table, I would encourage people to explore potassium salt and what's called potassium chloride as opposed to sodium chloride, regular salt.

The only issue would be for those who have difficulty with potassium regulation, such as those on certain kind of diuretic drugs or or those with kidney disease.

But other than that, potassium chloride is something that I use. And we have, you know, randomized controlled interventional studies prove that you can dramatically decrease the risk of premature death, even switching people from regular salt, just a half potassium.

So wouldn't even be able to taste the difference and get significant drop in mortality. So that would be number one is decreasing sodium intake. Then we can also increase our intake of whole grains drinks, herbal tea called hibiscus tea, which actually can work as well as when leaving blood pressure drugs.

But without the side effects, encourage people to eat vegetable nitrates, which are found predominantly in beets, beet greens, beet juice and most concentrated in dark green leafy vegetables helps your arteries relax and and open.

So these are some of the foods as you go out of your way to try to include any dye while at the same time decreasing sodium intake. Could you elaborate just a little bit on what actually the mechanism of sodium?

Because I feel like so many people think that sodium is no big deal. Still, what is the actual mechanism of why it's an issue? Right. Yeah. So the and there really is no first of all, just say there's no controversy in the system.

There's a scientific consensus and we have double blind, randomized controlled trials going back decades. You know, you take people with high blood pressure, put them on a sodium restricted diet, their blood pressure drops, keep them on a on a low tide and add a placebo.

Nothing happens, obviously, but on that same low salt diet, you put a bomb on a kind of a slow release salt pill, unbeknownst to them. And of course, what happens is their blood pressure goes back up again.

And look, even a single meal can do it.

How salt affects blood vessels

You take people with normal blood pressure, give them a bowl of soup containing the amount of sodium you'd find in just like a typical average American meal.

Blood pressure chronic climbs up within the next 3 hours compared to the same soup without the added salt. And so, you know, we have dozens of studies showing reduce your salt, reduce your blood pressure reduction, reduce your blood pressure.

But it's not just blood pressure. You said, well, wait a second, I eat lots of saw. My blood pressure's fine. What do I have to worry about? There are other adverse effects of salt, not only on artery health, but also immunity, worsening autoimmune disease.

And so we sodium is one of the big things that we've really changed since our kind of ancestral past, dramatically increased our sodium consumption, dramatically decreased our potassium, some consumption because you're not eating a lot of the healthy plant foods we used to be eating.

And so 98% of Americans don't even reach the recommended minimum intake for potassium, which 4700 milligrams a day. And most people, of course, are getting too much sodium.

And in terms of what's actually happening, you can use something called the laser Doppler kind of flow imagery, which measures the amount of blood flow in tiny capillaries like in your fingertips.

And you can show, you know, you give people, you know, you give people a salty meal and you can see that blood flow constrict. And we recognize this actually a approach oxidant effect, a free radical effect, because if you then you eat a salty meal and inject that fingertip with vitamin C, for example, you can actually the arteries start dilate back up again.

So salt appears to impair arterial function through a free radical mechanism. We now know turns out that sodium intake, what it does is it suppresses the activity of a key antioxidant enzyme in our body called superoxide oxide dismutase, which is this power horse and an enzyme detoxifies like a million free radicals a second literally.

But that wonderful antioxidant enzyme, which is our first line of defense against free radicals, is stifled by sodium. So, you know, artery crippling levels of oxidative stress can build up when we eat salt because it suppresses this enzyme.

So you mentioned the free radicals. Could you just kind of highlight exactly what that is for those? Yeah. So, so chemically free radicals have to do with, with the, with the molecules that, that, that steel extra electrons molecules like to have paired electrons.

Free radicals, aging, and plant-based diets

So if you only have one electron, you can go around and, and rip electrons off of other things like our DNA causing DNA damage, potentially mutations which can lead to cancer.

It can this is so called oxidative stress. These these free radicals can rip electrons away from fat, causing oxidized rancid fats can do the same with proteins in our body.

And so there's actually what's called the Mitochondrial Theory of Aging, which kind of probably the most well-recognized theory of aging suggesting that it's the only theory of aging we know of that can account for actually the wide range in lifespan in animals, which can range a thousand fold from a clam that whose heart beats for 600 years to, you know, the little, little mayflies that may only last a few weeks.

And what accounts for that? There's only one thing that we know of, and that's the amount of free radicals spewing from our mitochondria, little power plants in our cells, fewer free radicals spewing from those mitochondria can extend life and we can actually slow down that free radical production with two things aerobic exercise and a fining restriction, which is the amino acid concentrated mostly in animal products.

So we can either reduce our protein intake overall down to recommended levels or just switch from plant protein sources to more animal protein sources.

We can decrease in fine and hopefully slow down the rate of aging because we slow down the amount of free radicals that are leaking out of our mitochondria.

You mean switch from animal to plant based? I'm sorry. From animal protein to plant protein sources. I'm sorry. Yeah, yeah, no problem. So speaking of the plant based diets, and could you speak to how this compares to animal leading diets?

Why is this a better choice for health overall in particular? I love the free radical discussion. Well, I mean, look, I'm plant based. I can reverse hypertension, leading causes of of of mortality can also reverse other leading killers such as type two diabetes, obesity, heart disease, the number one killer of men and women and so, look, if that's all the plant based I could do, reverse the number one killer of women.

I mean, shouldn't that going to be the default than the proven otherwise? And the fact that a plant based diet can also be so effective in preventing, treating and resting, reversing these other leading killers would seem to make the case for plant based eating simply overwhelming at this point.

Perfect and you hinted around to the aging is I know you have a new book out and how much of it so did we speak to how besides reducing the maintaining and the mitochondrial burden, I mean, like what else can we, as you said, aerobic exercise?

Like, what does that do exactly to the mitochondria that allows this free radical production to decrease or reverse? Oh, yeah. So why does aerobic exercise improve the efficiency of our mitochondria?

That's a good question. I don't know if we know exactly why that happens. So that's one of the so oxidation is one of the 11 aging pathways that I cover in the book.

That's kind of in the first part is it's kind of a four part book. So the first part is kind of the nerdy section where I go through these 11 anti-aging, these 11 aging pathways and talk about, you know, kind of the practical takeaway takeaways in terms of diet and lifestyle, to be able to kind of reverse some of these or block some of these aging pathways.

Lifestyle factors: exercise, weight, alcohol, and caffeine

And so it's all about boosting the anti aging enzymes and hormones like Ampk FGF 21 certain inflammatories, suppressing the pro aging enzymes and hormones mature and IGF one decreasing glycation oxidation inflammation, senescence while preserving our telomeres and and slowing the epigenetic clock.

I know these are all sorts of fancy sounding scientific terms, but I really do try to break everything down into kind of easily understandable, doable, kind of practical takeaways.

No, and it's it's it's very usable, easy to access. You just need to set aside several months to get through it all coming, having seen it. All right.

It's a lot. Yes, absolutely. So, you know, you mentioned the aerobic exercise. Is there any specific type of other lifestyle factors that might help influence hypertension reduction that we need to be paying attention to?

Oh, AM So weight control. So having excess body fat can increase hypertension imparato functional ability to of your arteries to relax normally probably through an inflammatory process.

And so that's yet another reason why we should lose weight. It's not just to help with osteoporosis. Osteo arthritic knees is not just to decrease your risk of diabetes, but also can bring our blood pressure down.

And so how does a plant based diet help you lose weight? Oh, plant based diets are the most effective intervention ever published in the peer reviewed medical literature.

That doesn't, you know, constrained portions, you know, no calorie counting, no enforced exercise. But based on those types of studies, nothing works better than a plant based diet.

And that's for all the reasons I described in my book, How Not To Diet. When I go through all the different properties of a optimal weight loss diet and why, you know, high fiber consumption, low calorie dense, they all the reasons why eating healthy plant foods can help people lose weight.

And does alcohol or caffeine consumption effects hypertension. Oh well I mean I mean so excess alcohol can certainly can lead to something called can lead to heart failure as can high blood pressure the the the most concerning thing about alcohol is it's cancer risk.

So even light drinking, which is defined as 0 to 1 drinks per day for women, can increase breast cancer risk. It's a really the safest level of drinking really is none ideally but but in terms of caffeine consumption, some coffee drinkers tend to live longer lives.

Lower rates of cancer overall can increase bone loss. Glaucoma, acid reflux, but otherwise healthy beverage. Though every cup of coffee is lost opportunity to drink something even healthier, a cup of green tea is probably the healthiest beverage besides water.

So we've always heard that moderate alcohol consumption is actually better than the teetotalers. So how did that actually get flipped? Like, how did that change?

Yeah, well, so, you know, everybody agrees that, you know, heavy drinking, drinking during pregnancy and binge drinking, bad idea. But there's been this controversy about moderate drinking, those who tend to live the longest, not the, you know, teetotalers, but were those who lived a few drinks a week.

Unfortunately, this appears to be a result of what's called the sick quitter effect arising from the systemic Ms. classification of former drinkers as lifelong abstainers.

As the same reason studies can find higher mortality rates among those who quit smoking compared to those who continue to smoke. It's not that abstention led to poor health, but poor health led to abstention.

And so when you correct for that, there's no longer any benefit to light, to moderate drinking. There's just kind of this straight line increase in rates of disease with more and more alcohol.

Blood pressure with age and the DASH diet

So according to the Global Burden of Disease Study, the World Health Organization, the World Heart Heart Federation, we really should try to to cut our consumption of alcohol, at least on a day to day basis, down to zero.

Grapes, barley and potatoes are best eaten in their non distilled forms and Johnnie Walker is no substitute for actual walking. Dr. Gregor with the aging piece.

So a lot of people think that just because we get older that our blood pressure will actually climb with age. Is that actually true? So that used to be what we thought.

We used to think that, look, I mean, you know, it's just a natural, inevitable consequence of getting older until we started looking around the world and found that there were cultures that did not that blood pressure did not go up as as they age.

So, for example, this famous study done on those living in rural Kenya or over a thousand people, no rise in blood pressure with age rural China see a very similar effect written about, you know, 121 reading their entire lives are more or better than that 110 over 70 And in rural Kenya and you say always again, Chinese diet, African diet, vastly different diets.

What they shared in common is that there are plant based day to day with meat only eaten on special occasions. You said, well, wait a second, how do we know it's it's the meat?

Well, it's because the only folks getting down at low on average in the Western world are those eating strictly plant based diets. Indeed, you can show you can randomize people to plant based diets.

See the significant drop in in in blood pressure. So the average blood pressure of those eating strictly plant based diets, right. Right where we want about a 110 over 75.

And so that's you know, that's that's that's really that's really the target. In fact, the whole dash diet, which you often hear about is prescribed for people with high blood pressure was actually based on that data where they, you know, where they, you know, trying to kind of replicate the blood pressure, lowering benefits of more plant based diet, though, you know, they included animal products like dairy, not because there was any kind of benefit, but they just thought it would be more kind of acceptable to the general population if they included some limited animal products.

And so one final question. So if you had someone approach, you as a physician who had hypertension, what are the top five things you would tell them to do starting today to help improve and hopefully reverse their hypertension?

Okay. Well, the most important thing I would tell them is it's not something to be ignored. So hypertension is a silent killer because you don't really feel like, you know, high blood pressure.

With a high blood pressure, you typically don't feel any different. And and so I would first of all, don't ignore it. There are and I would and typically we go to a regular physician, you're prescribed blood pressure pills, even though technically the clinical guidelines say lifestyle should always be the first line approach, doctors tend to skip that thinking.

This patronizing ad to the patients aren't actually going to change their diet or lifestyle. So let's just skip to drugs. Unfortunately, the drugs don't work very well.

I'm sure they will. Why improve your life? You can just pop a pill. Well, the absolute risk reduction is really quite

slight for these kind of so-called lifestyle drugs, like blood pressure, blood sugar or cholesterol lowering drugs.

Top steps to reverse hypertension

So there's actually greater benefit by treating the cause why you have high blood pressure in the first place, which is these diet and lifestyle choices, you know, being sedentary, eating too much sodium and not getting enough of these these blood pressure, lowering fruits and vegetables into one's diet.

And so would encourage people to, you know, take advantage of something like physician screening for responsible medicine. Has this 21 day Kickstart program, got a 21 day Kickstart done or and it's completely free starts on the first of every month.

Hundreds of thousands of people have done it. A bunch of different languages on me sign up. It's kind of like a little social media group and you share recipes, you get it for daily advice tips.

The hope is they just kind of dove in three weeks, go all in, just try it as an experiment, as kind of a, you know, free sample and just see what happens to your blood pressure in that time.

Now, if you are on blood pressure medications, make sure they do this with your physician to make sure your blood pressure doesn't bottom out. Drop too low.

Both patients and physicians alike underestimate the power of diet and lifestyle. And so you can actually find yourself critically, critically low. Same thing with blood sugars. You're on blood sugar, lowering drugs.

You really have to do this, make these lifestyle changes in conjunction with your medical practitioner so they can monitor and withdraw these drugs, wean you off these drugs as your levels normalize naturally when you treat the cause with that lifestyle.

That's perfect. Yeah. No, I can attest as a physician, first time I realized 12 years ago I had to stop some plant based overnight. You know, I was so excited to encourage people lose 60 units of insulin in 72 hours adult and also your family members if they're eating with you and they're able to your medications are able to measure.

Exactly exactly. What they're. Going to call patients in the yard. So that's why, you know, the blood sugar God does what exactly? No serious, serious business.

And but it just shows the power of diet and lifestyle. And so, yeah, hopefully they stick with it. Yeah, absolutely. Well, thank you, Dr. Greger, for your time today.

And thank you, everyone, for listening. Thank you so much.