Introduction to Cellular Energy

Mitochondria is where food energy is converted to people energy. This requires oxygen and nutrients, such as NAD nicotinamide adenine dinucleotide NAD, which is two vitamin B3.

That energy from the food that was torn apart by oxygen adds to it a hydrogen ion. So it becomes NAD and another hydrogen beside it, so it becomes NAD plus H that drives a pump, that makes a molecule that is an energy $3 bill in effect.

So adenosine triphosphate ATP is our number one molecule in the body of energy. And with enough ATP we have a much better life.

Why Intravenous Vitamins Matter

Hello, I'm doctor David Wickenheiser. I'm an acrobatic physician and the host of the podcast The Natural Facts. In this episode, I want to discuss why, as a natural physician, I use intravenous vitamins.

Now, vitamins are a part of many people's nutritional supplementation. Ideally, we need to get good food into our bodies. And for many people in a modern world with questionable sources of good food or even just a rushed lifestyle where they don't shop properly, we often go to other forms of nutritional support, including swallowed oral pills and powders to enhance our, nutrition to get enough of the good nutrients into our body.

Now, theoretically, everyone should just be living on good food, seasonal fruits and vegetables, good protein, good fats. That's what we should be doing.

But to be a realist, that's often not enough. And people are very busy, or they have traumas in their life that they're attempting to heal from. So we need to use every tool that we can, and vitamins and minerals and other preparations intravenously is therapeutically very useful.

I graduated from naturopathy school in 1995. I was licensed in September and one of the of that year.

Digestion, Absorption, and Assimilation

And I immediately, because of my training and my licensure and how I want to look after people, I immediately started using intravenous vitamins and minerals with patients.

Got great results. I've used certain formulas over the last 30 years with great effect. People love it. They love the support it gives. They love the enhanced energy.

So there's a number of reasons why intravenous vitamins work. And, you know, why would you even consider doing that? It's more expensive. Why would you waste money if it's true?

In truth, it was a waste. Well, let's get into the physiology of why intravenous vitamins and minerals work so well. There's a difference between absorption and assimilation.

Let's talk about how food is normally processed in human body. There are a number of steps, and each step takes energy. So the first step is you must digest the food.

So chewing swallowing digestive enzymes must be introduced both in the mouth, in the stomach, small intestine. Food must be digested, broken down. That takes energy to digest the food.

So that's the first level of energy number one. Then it takes energy in the cells of the small intestine within each cell

that takes energy to move. Nutrition, even great food from the lumen of the gut into the cells lining the intestinal track.

So that's the second level of energy. Then it takes energy to move it, not just into that cell, but a third level to move it from the cell into the bloodstream.

And then it floats around in the bloodstream, various nutrients. And when there are target tissues. So you're trying to go to support heart muscle cells, then those heart muscle cells must expend energy to pull nutrients from the blood into the muscle cells.

Very important to go through each one of those steps. So digestion absorption. That means going from the inside of the intestinal track into the cells lining the intestine, and absorption, and then moving it into the blood.

And assimilation is getting it into the final target tissue. Heart muscle brain, parts of the liver, wherever the target is, you want to get that nutrients there.

How IV Vitamins Bypass Energy Bottlenecks

Now the problem is a lot of cells in the human body do not have enough energy. They're deficient. That's how we got into trouble anyway. And so there's a whole discussion about when people start to waver in their health.

They start to tip, and they get to a point where there's a tipping point where they go too far. Essentially, my job is to tip people's health, getting back into an area where they can maintain their own good health.

So regaining and maintaining good health through nutrition, through herbal medicine and others is very important. And intravenous vitamins for too many people is unrecognized.

They don't know that it's possible, and it certainly is. Now why is it so good? Because it it doesn't rely on the absorption and energy expenditure of digestion, absorption and ultimate assimilation into the target tissues.

When we put a formula of intravenous vitamins, we get that from a compounding pharmacist. And these are absorbable proven absorbable forms of things like vitamin C, magnesium, the various B vitamins we use B-Complex, we use B5, B6, B12.

That's a basic starting point for nutrition. And when we introduce that directly into the bloodstream via a needle. So we do an injection. Now there are B vitamins that we can do an intramuscular injection.

That will be a slow release over the next few days. But majority of what we do is intravenous. That means directly into the vein. So we have to make sure everything's clean.

We're using the best equipment. There's single use on everything the needles, the syringes, everything's discarded after every treatment. Yes, there's some medical waste, but that's essential to good health.

Good care to regain your good health. And of course we do that. So when you introduce vitamins directly into the bloodstream, the level will start to increase to the point that people can smell it.

They actually have the sensation of smelling. You can smell the light. Now if you can't it means you're so low, you have so little that the cells are grabbing up the vitamins.

Certain B vitamins, like B5, is has a distinctive odor when it goes into the bloodstream.

Myers Cocktail, Pushes, and Drips

So we're injecting vitamins at a certain slow rate that supports the body now mechanically, not based on energy from the target tissue, which may be depleted, often is and cannot draw vitamin nutrients out of the blood.

So by putting a higher concentration directly into the blood, it mechanically overcomes that lack of energy and just because of concentration gradients, moves into cells.

Often when we start working with a person who's depleted, who's tired, who's exhausted, and we put in the basic vitamin, magnesium and B vitamin so called Myers cocktail into people, what happens is that first they'll smell it and taste it, and then it goes away because the cells of the body, having some nutrition forced into them, they wake up and they're better able to assimilate from the bloodstream.

And when they do that, there's not enough in the bloodstream to smell. And that's very exciting because it could take 2 or 3, maybe four treatments before someone smells the vitamins throughout the entire treatment.

And when they do, we know that they're topped up. Now that's a classic, what they call a push. So using a syringe with the magnesium and various B vitamins direct into the body, that's a great way to support and top up that person.

Now some people get frustrated because they say, well, I've had these shots and I don't get the boost that I used to get. Higher energy, more calmness, better able to sleep.

They just don't get the boost after 4 or 5. Well, the simple reality is that you cannot be more full than full and people adapt to having more energy and they use more.

And that's a challenge that we have to educate patients on, is that you will get better, but how much is better? Then we have to look at other supplementation or we go to what's known as a drip, which is a bag with a large amount of nutrients in it.

Classically, we would use a 250 mil bag of sterile water into which we've added vitamin C, magnesium, the various B vitamins, and depending upon what the person's goals are and how I've interpret their therapeutic need, we may add other substances so that we get into special nutrients, such as an add.

NAD and Mitochondrial Energy Production

Now to explaining NAD. You may have heard of it, but you may not have. We're essentially made up of bags of. We're made up of cells which are bags inside of bags.

So in inside of each cell which is a bag, there are smaller bags and some of those are mitochondria. You may have heard of mitochondria. Mitochondria is where food energy is converted to people energy.

This requires oxygen and nutrients, such as NAD nicotinamide adenine dinucleotide NAD, which is two vitamin B3. That energy from the food that was torn apart by oxygen adds to it a hydrogen ion.

So it becomes NAD and another hydrogen beside it, so it becomes NAD plus H that drives a pump, that makes a molecule that is an energy $3 bill in effect.

So adenosine triphosphate ATP is our number one molecule in the body of energy. And with enough ATP we have a much better life. We even express our genetic potential much better.

So to have efficient production of energy through the mitochondria so we get the best value from our food, it doesn't just take good oxygen breathing enough through exercise, through different activities.

But often we take in NAD and I've used NAD as an oral supplementation since in 1997 with patients, and that's been fair. We've got some formulas that are very good for weight loss and various other processes that patients are going through.

But for some patients, we've used intravenous in a de, and it's become very popular in the world of even addiction support. So have enough energy to make neurotransmitters in your brain.

So if you're going through emotional strain, if you're going through physical strain, an intravenous application of NAD could be along with vitamin C and magnesium and B vitamins could be very important.

Another is detoxification known as key lation. He lation is putting in an open clore effectively. Kelly was Greek for claw. So a claw would go in and grab good and bad minerals.

Unfortunately the good as well.

Chelation and Toxic Metal Support

But you do 1 to 2 treatments a week and in the non treatment days for chelation, which is pulling out lead, cadmium, mercury and many other toxic metals, aluminum, antimony and others.

You get all that out bismuth even we generally for that type of treatment we start with the toxic metal evaluation or heart disease evaluation. So when we're getting toxic metals out of the human body, we're able to do that with ki lation.

So we pull good and bad out. Unfortunately the good with the bad. But then on the off days of treatment, we put the good minerals back in. Circulation is very important.

It's even been shown in cases of blood sugar irregularities, diabetes, the glycation glucose is a sugar and glycation is the movement of sugar into certain tissues like your eyes, like nerves, areas of the kidney and other areas so high blood sugar present certain very clear problems.

Glycation byproducts. In other words, complications from high blood sugar can be reduced. This is proven by research as much as That's dramatic. That's phenomenal.

In fact, it's not just the blood sugar, but it's the lead cadmium mercury that combined in the process to create problems. So by chelating, of course, we need to put you on diabetic formulas and support the pancreas and support the body in how you use blood sugar.

But there's various formulas for that. But ki lation getting out toxic metals has side benefits, not just getting out the metals that are poisoning your body, but actually optimizing blood sugar usage.

Very cool. I mean, there's some really neat ways of supporting the human body through intravenous vitamins. And there's many other formulas as well. So how do you start your interest at the sounds good.

How do you start? Well, first visit of course. Find out what your health history is, what you've experienced, what your family history, what your likely problems are.

How do we answer those problems? That's determined by an initial consultation generally takes 50 minutes to do that. Then we look at laboratory testing.

How well are your kidneys working, how well is your liver and various enzymes? What's your, status for things like your cholesterol?

Consultation, Testing, and Personalized Care

What about minerals, calcium, potassium and others? Do you have a cholesterol challenge? We can discuss that in another podcast episode. So getting a full assessment know biochemically through your blood how your body's responding and where your needs are.

We can balance out your body with specific intravenous vitamins that are more effective than oral supplementation. Now, here's a really cool thing when the body is supported through intravenous vitamins, the cells wake up and you'll actually get more value from your food and from your oral supplements.

The pills that you take, you'll get more value. So it's a solid therapeutic intervention on its own, but it also tunes up how well your body will function in the coming weeks and months after the treatment.

I'm Doctor David Wickenheiser, naturopathic physician, your host of the Natural Facts podcast, and for more information on this and other health concern health topics, go to my website.

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