Longevity Secrets: Beating Zombie Cells & Boosting Mitochondria Transcript

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Introduction to Carbon 60

Welcome to the Fasting & Longevity Summit. I'm your host, Dr. David Jockers. And today I'm interviewing Ken Swartz. And we're going to talk. about this fascinating Molecule of longevity called Carbon 60, a really novel breakthrough in scientific research.

And this molecule is considered the most powerful antioxidant and longevity extender that modern science has found. And it's really, really interesting.

You guys are going to learn more about the mitochondria, how critical carbon 60 is, how it upregulates certain mitochondrial antioxidant compounds and you guys are just in for a wealth of knowledge.

I always love my conversations with Ken. He is so sharp and he's the founder of and the Chief Science Officer of Carbon 60 Purple Power, a health and wellness company committed to delivering the highest quality Carbon 60 products available.

Ken has run several research science labs over the course of his career. Discovered C60 while developing the Moxie Fusion Reactor. During his research, he became aware of the powerful, free, radical neutralizing properties of C60 in 2016, Ken founded C60 Purple Power, which offers 99.9% pure sublimated carbon 60 never exposed to solvents.

He uses mostly all certified organic oils in his products. I mean, just amazing stuff. And we're going to go through that in detail and really how Carbon 60 works in your mitochondria and the best sources for how to get Carbon 60 into your system.

You guys are in for a treat here. So without further ado, let's go into the interview.

What Carbon 60 Is and Early Research

Well, Ken always great to talk with you. I know you're just a wealth of knowledge and I love how you break down the cellular dynamics and cellular mechanics and how our body produces energy and how, you know, really some of the key compounds and some of the key processes needed for good overall cellular health.

And so obviously with carbon 60, you guys are doing a lot of research and you're always on top of the research. So let's start with what is carbon 60?

Well, just for your listeners here, carbon 60 is a molecule of 60 carbon atoms shaped like a soccer ball. You can also see it behind me on the screen if you're you're so listening, if you're watching and it was discovered in 1985, actually solved the mystery in astronomy.

And and they receive the people. Harry Kroto, Richard Smalley and Robert Curl received a Nobel Prize in chemistry in 1996, kind of because of its unique shape and tech.

Again, a scientific name is Buckminster Fuller, because Buckminster Fuller, decades before it was discovered, predicted this molecule would be would be discovered, and then it would have healing benefits, which is very unusual since it was decades you perceive predicted that decades before that was discovered.

And and for the heating benefits. You know here's this new molecule. It's found in outer space. It's also found like in the burnt wick of your candle like in 0.25%.

And so they, you know, it took a while to learn how to make it in large quantities. And finally, when they got to that

level and they these guys, they basically started using it for testing for, you know, toxicity.

Here's a strange molecule and the probably the most famous study is Butchery Study, which started early 2000s. And it it actually found that it increased the lifespan of test animal Wistar rats by 90%.

And yeah, that was a little bit surprising. And in the meantime, of course, that's because the rats live a very, very long time. Right? Obviously much longer than they did.

So meantime, there's a couple in the study almost. Doubled their lifespan. Yeah, exactly. Well, actually, the last couple of rats had an unfortunate accident, you know, so they'll see 60 rats so that they could publish their I guess that's and they published a paper, but they also did a study in the meantime when that was going on on mice.

And it found that it increased the lifespan of mice and it prevented cognitive decline. And with the wistar rats, wistar rats are a type of rat that that is it's sort of an analog of human aging.

So if you're looking at a lot of the problems that go wrong with aging and so like in the wistar rats, the primarily their lifespan was increased because it completely prevented the occurrence of cancers and cognitive decline and other degenerative diseases that are commonly associated with aging in wistar rats.

And to a certain extent in humans, you know, it's, it's an analog. And so that was kind of the thing. Now how I got involved, I was actually working on the Metal Oxygen Fusion Reactor Project, which you'll probably hear about the news one of these days.

And and, you know, there's a lot of late professors this and dead doctors that associated with and so I didn't want to end up in that category. And I had a crew, of course, that I was responsible for.

I didn't want that to happen to them. So I went out, you know, looking for something. And I discovered this stuff, this carbon 60 stuff and the buckyballs, that's another name for them.

And they basically had this thing with, again, one set of rats got C60, the other set of rats, of course, controlled them. Here with a fatal dose of radiation.

Pretty much all the C60 rats lived where the controlled rats, of course, all died. And. And when I learned about that, I got C60 from a couple of sources, and we're still all around, by the way.

So it must have worked in that regard. But I kept taking it after the experiment was over because, you know, it gave me a little bit more energy, I thought maybe better mental clarity.

And some of the afternoon blows you get, you know, if you take lunch and you kind of have that crash that went way down. But what really kind of sparked it off is when I about seven months after I'd been using C60, I went to see my eye doctor in my Drewes or dry macular degeneration had completely disappeared.

Hmm. Wow. So you had this dry macular degeneration that was taking place. And how long a process? You said six months. About seven months. I did. And I had that degeneration for many years.

Yeah, I was taking the Luton's are the Sciatin's and you're doing you know what my eye doctor recommended?

Mitochondria, Antioxidants, and Mechanism

And you know, I talked to her about other treatment options, but he said that he would he would never prescribe them because the actual side effects are worse than the disease.

So I was just, you know, maintain his motives, maybe getting a little bit but a little bit worse over time. But it completely disappeared. And of course, in the meantime, my electrical engineer, Gary Rodriguez, he had type 2 diabetes, and so he had developed severe, wet macular degeneration.

So I went out and made a mayday of proportion, a big kind of hiding there. Let me see if I could improve our functionality here there and see if we could see it now Well, yes, we can.

Yeah, that's a sort of the just that was it was hiding away and I put it in MCT Coated Oil. So for if your listeners are not aware MCT, they're medium-chain triglycerides and they're turned into ketones by your liver very quickly.

So it functions as a flex fuel for your body. So, you know, so basically if you do have, I'm not a medical doctor, can't give medical advice, but it's a really good idea that if you do have glucose processing issues, having a little MCT around can really help you because it's it makes, you know, makes those ketones so it's flex fuel for your cells so you don't get the crash.

And so he took a tablespoon a day for a year and his severe wet macular degeneration, went completely away. And we used to be able to post the pictures, the before and after pictures, but that's making claims.

Now, these are in course, anecdotal situations, even though we've had many other anecdotal situations with customers. But but that's one of the key things that that it is known as type 2 diabetes that's subclinical.

So yeah let's talk about the mechanism for why both your your dry and his wet macular degeneration improved. Let's talk about what's happening, what C60 is actually doing at the mitochondrial level.

Well, first of all, let's talk about mitochondria and, you know, if you there are certain cell types in your body which have a lot of mitochondria, the brain perhaps has the highest level of mitochondria.

It's, you know, 2% of your body weight is uses 20% energy. I mean, I think half it's half the physical mass of most nerve cells is literally mitochondria.

So, you know, because they use so much energy, the mitochondria are the organelles in our cells which make the energy. And so one of the things that C60 do, the C60 is characterized as an SOD deacetylase mimic in dealing with the oxidative radical superoxide and you know, your normal mitochondria are, you know, they're furnaces and one of the site of furnaces make pollution and one of the side effects is superoxide is superoxide.

And usually, as you know, especially when we're younger, we have our larger cells make an enzyme superoxide, dismutase and catalase. And those two work together basically to reduce superoxide, which is an oxygen with an extra electron down to water and oxygen as well, basically.

SOD turns it into hydrogen peroxide. Then then the then the catalase turns the hydrogen peroxide and water and oxygen and and and usually, you know, when we're young, that works great.

But as we get older, our SOD levels go down and sometimes catalase levels down. So we can't process that that superoxide as much and it can leak out and and cause damage.

And you know what? What can you know, what are those oxidative radicals? SOD could do I mean you can crosslink proteins. They don't work you can damage cell membranes or things leak in or leak out that shouldn't.

And of course, you could damage already a DNA chemistry and another thing that sodium superoxide superoxide makes, it'll combine with nitrous oxide, which is another common oxidative radical in our cells and make a proxy nitrite, which is really stable and that can kind of float even out of your cells.

You can go a long distance before it could cause damage and they think DOMS delayed onset muscle soreness has a lot to do with peroxide nitrite production, especially when you do it like that massive amount of exercise.

So when you take C60, C60 passes the blood, it passes the gut barrier, passes the blood brain barrier. It's uptake in the cells by endo psychosis that end the mitochondria by end of psychosis where it works.

Is that so do you catalase miller and so what happens is now your mitochondria because they now have a SCADA

essentially so D catalase that they can turn their their production levels back up.

So now you have more ATP, which is the energy molecule, the cell. And when you have more energy molecules, well, then your cell can heal itself, basically.

And that appears to be what happened with because the retinol, by the way, for back on the retina is part of the brain. Its nerve cells are super. Dense in mitochondria.

And so that's which is interesting because when people take C60, the first thing you notice is like better mental clarity, like the brain fog goes away and a better mental focus.

And of course that would be associated with improved mitochondrial function. Yeah, it makes sense. Now, what's different about C60 versus your typical antioxidants?

Like if somebody is taking vitamin C, lutein and ZEAXANTHIN? A lot of things that you talked about. What's different about C60 compared to many of these other antioxidants that people are consuming in their diet as well as in supplements?

But one of the things is C60 only reacts with two oxidative radicals. One is the superoxide I mentioned, the other is the hydroxyl ion. And that's basically a water molecule that has the proton locked off.

And those are the two most damaging oxidative radicals in the body. And the body doesn't use them as signaling molecules. Okay, that's really important.

And that's all C60 does. It interacts with. It basically turns superoxide back into an oxygen and turns the hydroxyl ion back into a water and and what it doesn't do, C60 does not interfere interact with nitrogen oxide, which that's a vasodilator vasoconstrictor depending on the levels it's supercritical, the health C60 doesn't interfere and C60 doesn't interfere with any of the other signaling body's signaling molecules, many of which are oxidative radicals.

Now, if you're taking vitamin C, your vitamin E or something, or insulin Atkins, if you take too much of them, they actually start interfering with a lot of the body's signaling mode.

Yes. You know, signaling molecules, which like nitrogen oxide and and some others based around sulfur and zinc. And then you get decreased performance or decreased effectiveness because you now you're actually interfering with the body's signaling molecules, structures and diuretics obviously cause problem.

We never actually done a meta study. You can go online and find it, but they were they did you know, they took all these studies about athletes using vitamin C and Vitamin E to see if it can actually increase athletic performance.

And they found. No, because as you get more above a certain level, then you just get decreased performance. So, you know, they basically recommendation was eat a healthy diet and you'll have enough for that.

But with C60, it doesn't really interfere with just the peroxide in the nitrites line. So C60 is actually the only antioxidant that can increase athletic performance.

So in a sense, there's good oxidative stress and bad oxidative stress. Typically in a natural health world, we kind of lump oxidative stress all in the bad realm.

But that's actually, you know, it's a it's it's an immature way of viewing it. We really need to understand it's good and bad, right? We need a certain amount of it that actually helps our body produce endogenous antioxidants like our own glutathione levels and things like that.

And so that's one of the reasons why exercise can be so beneficial, creates resiliency because we produce all these all this oxidative stress, but then we adapt and we get better at producing our own endogenous antioxidants.

And so taking too many antioxidants can be really problematic. But C60, what it does is it works on the bad oxidative stress, the kind of oxidative stress we want to reduce without affecting the good oxidative stress that creates adaptation in our in our system.

Yeah, that's correct. And like, for instance, basically for big antioxidants that your body really is critical to mitochondria function and and that and that's of course one of the most CoQ10 yeah you can supplement for that and you probably should especially if you're older the second excluded iron now we couldn't used to be able to supplement for glutathione but they actually have some pretty good some pretty good like lipo of stomach, though some of them quite a level.

And they. Also liposomal. Yeah. Yeah. They have some that are absorbed through the gum tissues and stuff with a few others, the patch types that seem to be doing actually rather well.

Where do they get to the places they need? I don't sure. But one of the things that C60 does, C60 takes care of the hydroxyl ion, which is usually dealt with by the glue to fire antioxidant.

But of course, glutathione has dozens jobs.

Inflammation, Senescent Cells, and Stem Cells

That's just one job that would apply. And so and that's in fact what hydroxyl ions, what radiation produces mostly because your body's 70% water so it's not ongoing project so so kind of what if you take C60 it'll take that one specific job with iron.

So what glutathione you have can go do the other does an important jobs that it does. But until C60 came along there was no way to produce S0 D or catalase.

There was, you know, if you had lower sodium levels, catalase levels, because those are endogenous, they're made within the cells and there actually isn't any mechanism to to get S0 D inside of the cells.

There's some exon transportation systems, but we really haven't developed exosomes that can pass the gut barrier or be, you know, so that just there just wasn't any way to give to supplement four so.

D So basically we're solely dependent on our own endogenous production of superoxide dismutase to quench that superoxide molecule until C60 came along.

Yeah. And C60, it is a mimic, it mimics it does the job of slg and catalase in one step. Okay. There's back in the early earth there was actually geologic deposits of C60 around.

And if you were at a really, really, really cool environment, you know, subzero, very C60 would actually fit into the groove of the RNA molecule. The side room of the DNA molecule.

So it's suspected that C60 might have been the original antioxidant of life, which is why it doesn't interfere with any of the body's signaling molecules and only deals with superoxide and the hydroxyl on which the body doesn't use a single molecule.

And it does the job of, you know, so do your colleagues in one shot. That's just a speculation on, you know, based on some evidence. But it'll take some scientific.

That's why that's why you call it the Swiss Army knife, right? The Swiss Army knife of antioxidants. And so and that's the key now. But it also gets rid of a lot of inflammation in throughout the body.

And that's one of the things like, for instance, that's it's well known for that they did a study with rabbits and they gave the rabbits arthritis and then they injected C60 into the arthritic joints.

And yes, but lo and behold, you know, swelling went down. That's not surprising, because one of the things is when you have inflammation, usually you have you have cells being damaged.

When they're being damaged, they give off. You know, superoxide hydroxyl ions are very common and that that causes more damage. You know, macrophages come in and they set out cytokines and then they bring in the neutrophils and especially with autoimmune diseases and stuff like that, neutrophils are these, are these white blood cell types and they actually use.

Neutrophils or neutrophils or determined neutrophils. As well. So again, sorry, they're right neutrophils and they actually use superoxide atoms are molecules as, as, as a machine wants to kind of take out bacteria.

But if it's, you know, they're just kind of spraying around, you got collateral damage. So if you take C60, it would suppress that that excess damage.

And of course, inflammation goes down and but when they actually open the the opened up the the joints they found the cartilage increased, the cartilage had regrown, which was really surprising.

And from that I went to more research and they discovered that C60 actually increases STEM. So lowest in people. Okay. Mm hmm. And then. Now, how did that happen for you?

Let's see. Sixties young, right? We're just learning about it. And so one study leads to another, which leads to another. And basically they found that we have a lot of things called senescent cells in our body.

Right. And these are basically zombie cells. Usually it's because their DNA is damaged, they can't reproduce. And usually a mechanism apoptosis. So Fogerty that, you know, that basically wipes out these senescent cells but that that doesn't always happen a lot of these cells don't want to die.

So they go into this senescent thing is which which they basically go into the fermentation mode. They start producing sodium catalase via coke. You turn and other antioxidants.

And so even the mitochondria have to go into fermentation mode, which is kind of like a bacteria most like a primitive mode. And so like it, it's like 1/20 as efficient as the oxygen burning Krebs cycle.

And but the thing is they're fermentation right. We all know what does rotation do? All fermentation makes alcohols and all kinds of other nasties, which then start damaging the cells around them and the body in general.

And so one of the things that when you take C 60, C 60 is uptake in by those senescent cells. It gets into the mitochondria and it restarts the mitochondria back into the Krebs cycle, the making, the ATP and all that.

Well, you know, that's all well and good, but the mitochondria have their own DNA and they have a constant communication with the the larger cell's nucleus.

You know, it's it's part of there are symbiosis going on. And when the the mitochondria will send out messages to the nuclear DNA and if it's senescent cell, they're not going to get the right answer back and the mitochondria will actually blow themselves up and cause apoptosis, which is a form of programed cell death.

And the cell breaks down into apoptotic bodies, which are non inflammatory, by the way. And then the phagocytes come in, play them up. And, and so that's what appears to happen is that, you know, as people take C60, it kills off all these senescent cells.

Now, your cell type or tissue doesn't have as many cells as it needs. So it sends out messages, hey, we need more stem cells. And so pretty soon you got just really, really high levels of stem cells.

So a lot of the same benefits of fasting when we fast or insulin goes down, the body starts going into healing and repair triggers a haffajee. And as we're going through on autophagy, there are certain cells that are so far beyond,

you know, like autophagy trying to clean up cells so we can basically recycle the intracellular components so we can reprogram those cells.

But if the cell is so far gone, like you were talking about, sends the apoptotic signals so that the cell gets rid of itself and then we need to replace those cells.

So that's when these stem cells start to rise. So basically C60 is you're getting a lot of the same benefits of fasting when you're also taking the C60.

And of course, we all times we put the C60 in MSI2, oh, by the way, which is yeah, because it's basically ketosis. It's not going to break your ketosis because it's unstable.

And so that's, that's, that's, I often use that like in when I break the fast to the morning and stuff. Well yeah it's a little bit off for sure but that's, that's, you know, because if it just allows you to go on a little bit further.

Yeah, definitely. Yeah. Definitely get those ketones elevated, makes fasting a lot more comfortable. Now you talked about how the science is evolving and a lot of people that are listening to this the first time they're hearing about carbon 60 are really maybe they've heard about it, but they but, you know, it really hasn't caught mainstream yet.

But there are hundreds of studies. Is that correct? Like you guys have tons of money. Obviously, you've been been accumulating them on your website and you obviously have a a deep scientific understanding with this.

Yeah. Well well, we actually can only put up human studies and I mean, like and there's not as many human studies as there are animal studies. So there's actually this there's a site called What is the record?

And it is like one of those 5136. We supported some other C60 companies to support it. And so you can go there and you can get like the human studies, the animal studies, what C60 is, what works and what doesn't like.

One of the things is only dissolved. C60 works, you know, it's got to be completely dissolved like that, which I don't know how we're going to sell this, but this is like C60 dissolved in coconut oil and you kind of get a purple color.

That's where, you know, we original brand name was C60 Purple Power. That's where it comes from. So so that's one of the key things like particles of C60 have no health benefit and can actually be inflammatory, like nanoparticles of any type, you know, and that's just the thing.

So you have to make sure, you know, you can get your C60 in the right form and all those. And that's why what is the record is a really good place because I love to go there.

There's a couple industry hit pieces too, but they can't really do too much industry hit pieces because they found C60, they put ligands on C60. That's little attachments for people and can attach pharmaceutical drugs.

And C60 is actually a for certain pharmaceuticals and ACL replacement. And so we've had the companies, pharma companies have taken out, you know, millions and millions of dollars worth of patents on the C60 as a as an HDL replacement.

So you can't really go after it because they're kind of shooting themselves in the foot, which puts C60 in like a spot, but but pristine C60 just the natural molecule can be powered and so so that's, you know, that will always be available.

Now I know like with with your brand with shop C60 dot com you guys have it 99.9% pure sublimated what does that mean for that and why is that important?

Oh yeah, that's what's really important. Yeah. When C60 was a C60 was a small, you know, just a handful of people making it. Pretty much everybody made a quality product for their customers.

Okay. Because, you know, it's their family and friends. It was it was a really small community. And but once it became popular, it just like any like the CBD market, anything else, we get all these fly by nighters and so it's really important to know, you know, you have good C60 because there's ones out there that have no C60, low quality, low concentration.

And so what it is, is we use 99.99%. That's the purest you can get. Well, it's even more important. It's sublimated and sublimation. If you remember from your history class is the cousin of evaporation.

Product Quality, Oils, and Forms of C60

It's when a solid turns into a gas that back into a solid. So it's it's like distillation is the liquid evaporation concept so it makes a really high purity product.

And we basically take C60 in the Ashes carbon ash, as you put it, to sublimate or heat up to 40 degrees Celsius. And, you know, the C60 vaporizes into a gas flux the other side or condenses and that's how you get sublimated C60 and 99.99%.

Now a lot of companies out there actually get their C60 from a solvent based method. And the solvent that they use is something called methyl benzene, Ritalin, which is a known carcinogen and a toxic industrial chemical.

And you generally don't want to have that in the health product. You're taking to be against inflammation. So when you're out there, always look for like 99.9% sublimated C60.

Now it's really the one designed for people and C60 is also used in some industrial processes, and that's why they use that. It's fine, but and some other things too, because I did mention how C60 kind of had, I guess it had gotten out of a, you know, in as we after we make our product.

Hopefully we can do this. Yes, we can actually we have on our side of our product, we have the QR code and after our products made, we sent it to a third party tester and they tested for for purity and concentration of C60.

So, you know, what you're getting is safe and effective. We also have QR code are certificates of analysis. You can also, you know, that are olive oil is real olive oil.

It's not something with, you know, color. Yeah, no, the same. And it's all organic. We got organic olive oil organic, all of avocado oil, which I find I did it actually when everything came out first.

I got I originally got it. Everything came in extra virgin olive oil and which is great. Everybody knows about all of all how good it is. But the thing is, it can go through you.

I have kind of a side sensitive digestive system. So, you know, it was a little too if I took too much, that would be a problem. So I put in an avocado oil, which is really easy to digest and it's not quite as quite as has that bite.

And of course, we put it in my coconut oil for my friend Gary and for people that, like athletes, love those too because you get that extra boost with the with the and we've had some mid-pack athletes go to champions in their field.

Yeah, that's one of the few other things we put is C60 now we put it in a sugar free or sugar gummy. There's some people still like the sugar gummy. So it's these are really convenient to do a couple of these a day.

You can just put that packet in your, you know, your backpack or purse or something. And, and also there's two others. These are just as babies that we've come up with.

And that's some facial products because one of the very first human studies that we have on our website is where they actually put C60 in a face cream for Japanese women.

And it was found that C60 in the face cream would reduce lines and wrinkles in Japan. So we produced and I guess we could see that it anti-gravity so that's like a a C60 electronics for your face basically.

And then we. Also basically helps enhance the mitochondrial function in all the college in and elastin tissue so that when that elastin breaks down, you start to get the kind of the wrinkling and the sagging in the skin.

We also think because it also increases stem cell production. Yeah, more stem cells. And so your skin turns over really rapidly. Actually, if you get more stem cells, then then that also helps.

And by the way, your skin is also the sole, the same tissue type as your gut. Right? So people that take C60 internally, which, you know, usually you do they find that a lot of gut issues like leaky gut and other things, you go way down there because what's happening, we suspect, is just if it if it makes your turnover in your skin cells, it's going to make the turnover in your gut cells good as well.

And so you don't get those gaps that cause leakage, which causes inflammation, which caused the whole, you know, cycle of inflammation because, you know, good gut health is probably the key to health.

But yeah, so we can really break it down like excess oxidative stress, excess of the bad type of oxidative stress causes this senescence or aging process within the organelles, the mitochondria and then overall the cell as though as all the organelles within the cell are aging and and becoming dysfunctional.

The cell as a whole becomes aged and dysfunctional and is no longer functioning well. And that drives up inflammation in the system. And then when we start to get rid of these senescent zombie cells.

Right, because they're obviously going to cause poor function in everything, including the skin. They're going to cause more of that sagging and aged aged look.

And then also age spots on the skin. We get rid of those and we replace them with new young stress, resilient stem cells and also repair the cells that we can.

Now, obviously, their face looks better. The skin, you know, all of our organ systems start functioning better and that's really the mechanism here. Yeah.

So that's yes, that's and also it also goes with that, there's also a C60 Youth Renewal Ice Cream, which has the C60, but we also have some of those copper peptides. Hmm.

So they've copper peptides have been really found useful in rejuvenation of a skin and actually in the hair. But we don't have a hair product with the copper.

So there you go. You can put it on topically, take it in orally. And you guys have found that it absorbs best when you've combined it with oil. That's why you guys have products with coconut oil.

Olive oil, and then also the avocado oil. Yes. Yeah, those and those are the and those are also healthy and balanced oils. You know, there's obviously there's all those seed oils.

Yeah. Which you don't want to eat anyway, you know, canola oil, sunflower oil, oil, all of that, you know, cottonseed oil, all that stuff. It's really you know, you don't that doesn't those omega sixes don't belong in your diet.

It's just I mean, that's one of the we probably talked on your other health. It's one of the main reasons why people have such poor health today is seed oils.

Yeah, but huge. When it comes to diet, we always say more that we can reduce sugar and high glycaemic or high, you know, basically processed carbohydrates in general, processed seed oils and then reduce toxins in the food.

We're consumed by trying to go organic as much as possible. Those are three big changes that we recommend

from a nutrition perspective. So yeah, a lot of times people will take products and they've got seed oils in them, right?

So it's. Very yeah, you have to read and read the labels. They're just it's everywhere. And I was reading in Science Digest today, they were our babies.

Yesterday they found that a lot of problems with the are children and are used to having mental processing issues is actually a high level of pesticide herbicides and they found if you eat or get food for two weeks, it reduces the pesticide herbicide burden in the body by 90%. Wow.

That's that's and that's important. So, you know, if you can't, you know, you can't always get, you know, organic. But if you can get organics and there's also if you go look at it, there's certain fruits and vegetables which are usually just saturated with with pesticides and herbicides.

And so, I mean, it's like that good ten, the bad ten, which is your dirty. Dozen and clean 15. Yeah, yeah, yeah. So you know, if you're going to eat the outer layer, like think about an apple or a berry.

If you need the outer layer, it's probably because the, you know, different insects like the outer layer as well, and they're going to load it up. If it's not organic, it's conventional.

They have to load it up with a herbicide, pesticide, things like that. If you're not going to eat the outer layer like an avocado, for example, then typically it's much lower sprayed.

So you're usually safe getting it conventional, getting it non-organic. You know, if you're looking to, you know, pinch pennies with your budget, otherwise just try to go all organic.

Yeah. So and so that's yeah, that's just those, those are just, you know, important things. It's like if I do intermittent fasting, I, you know, I like my personal things.

You know, I, I did all these diets, right? The three white things, you know, no milk, sugar, cheese, you know, and I do other things. And the I always go down to a certain level.

And that was it was only when I started doing intermittent fasting where I punch down past that barrier and, you know, a couple of times I've gotten all the way to, what, a white weight in high school?

Although I'm not perfect. I wandered off. So, you know, I usually have like three or £4 over my ideal weight, but but still, I mean, it punched through.

It just went through those barriers I used to have. And so I really encourage people to do intermittent fasting to explore it. And it's different for men and women and so you've got to know what you're doing.

But, you know, studied up. But it's it's just it's just something, especially as you get older, it's something I recommend that people do in their lives.

Dosage, Timing, and Safety Considerations

Yeah, you and me both. I found it to be just a huge, huge game changer for so many individuals when they start doing intermittent fasting. Now back to the C 60.

What is the like clinical dosage where people are going to start to see results? What are the what are the what dosage do you take? What dosage you recommend?

Well, you know, for most people, if I was younger in my thirties, it would be probably maybe at least a teaspoon, maybe a teaspoon and a half. That would work for me.

I'm not in my thirties anymore and so for me it's like a basically my weight in age, it's a tablespoon a day. And so it's, it's like weight and age and so yeah, typical tablespoon today.

Most tablespoons, what, three teaspoons. Right. Equals three teaspoons. Yeah. And even if you're really big above 2 to 2 tablespoons which is an ounce is a British ounce metric analysis are bigger, they're actually 50% bigger but fluid ounces.

And so that's you know that's basically you know that you will probably don't need to do do more than two tablespoons a day no matter how big or old you are.

But it's just the age and so so most people, a teaspoon a day is fine, which is about, you know, one of these is about one and a half is a. So a teaspoon a day is kind of like like a good maintenance dose tablespoon or day for somebody that's older that's really looking to kind of supercharge their health. Up.

To two tablespoons after two tablespoons, kind of the law of diminishing returns. You take more, but you don't get any added benefit. Yeah. And they actually tested that one of the things I mentioned, C 60 doesn't interfere with any of the body's signaling molecules.

And so, you know, your doses in the body weight are like 0.1 milligrams per kg is 0.2 milligrams per kilogram and they actually took C 60 in animal test studies and they took it up to one gram per kilogram of body weight.

That's like 10,000 times health benefit, 10000 to 5000 times the health benefits. Those and even at those extreme levels, there was no toxicity. Obviously, they do have they live long, healthy, but, you know, but obviously there's more than we more than needed.

But because C60 doesn't interfere with any of the body's signal molecules, it just had no toxicity at any level. And so that's just it's good to know that, you know, you really don't have to worry about toxicity with C60.

And it doesn't really it doesn't make really any permanent chemical bonds in the body. And so it kind of washes out somewhere between 4 to 10 days, those two different tissue types.

And it goes out usually the bile ducts and also the kidneys will excrete it. So it doesn't hang around that long and and you need to renew. Yeah, that's really good to know.

And and again, you guys got it in the coconut, the olive and the avocado. Now coconut tea. I'm a huge advocate of because I put it in my smoothie every day and I'll add it to different foods and my body is able to tolerate it well and it increases the ketones, but A lot of people, you know, when they expression they add in too much MCT oil too quickly.

They can get, you know, disaster pants, right? So they can have a laxative like effect on the system. So, you know, you want to start slowly, maybe like a half a teaspoon and then kind of gradually build up to see how your body tolerates it.

Olive oil also, you know, like olive oil, some people do great with that, even people that struggle with them. But other people will have some digestive issues, especially when you're trying to take a larger dose, like when you start thinking, Hey, I want more than a teaspoon a day.

You got to consider how your body's going to respond to the oil. And you were saying avocado oil tends to be the most palatable for people that have more sensitive GI systems.

Yes. And also, you can mix the C60 with food, the C60 out there, and that just slows the digestion rate. You know, it maybe slows the absorption. I just don't get it.

But and you don't have to worry about, you know, just faster pants and other problems and you never dissolve if you never digested oil before you start taking your sodium is going to in pancreas have got to kind of adjust and

figure that out and it takes a few months on that.

So putting with your food in the morning is fine and we recommend it in the morning too because it has a bit of a stimulatory effect, you know. So if you're one of those people, you can take coffee after dinner.

You probably not have to worry about that. But. You know, it's interesting because, you know, for me, I either use it, I either put a little bit in my smoothie and I'll have to after my workout, you know, I intermittent fast in the morning, I don't consume anything and then I'll either do it there or I'll just have it like on the side when I'm having my dinner.

And you know, for me, I am sensitive to caffeine, but I don't I mean, I feel good, you know, I feel good, but I don't it doesn't doesn't affect my sleep at all.

Right So I think it's you know, from the energy enhancing perspective, I think it's probably energy enhancing for most people going to be more in line with your circadian rhythm, meaning that like your mitochondria, healthy mitochondria should be, you know, in a sense, your melatonin is going to rise.

You should be winding down and going into sleep mode in the evening and it you know, I just I just feel like I sleep better, you know, since I've been taking it and more energy, you know, when I wake up in the morning. So, you know, yeah, I would I would say I would think I would imagine that for most people, there's going to notice kind of more smooth energy throughout the day.

And then also, you know, better sleep overall at night. Yeah, that's kind of what happens and that the people, one of the reasons that happens is your mitochondria also make pretty warm which is the precursor fuel for all your cells.

So your mitochondria are kicked out in your endocrine system, which is the either the first or the second tissue type, which has the most mitochondria in it.

So once those mitochondria get going, they start, they take it, you know, basically take that LDL cholesterol, turn it into prednisolone And then depending on what tissue type, cell type it is, it'll turn it into whatever.

You know, you get more melatonin in the pineal gland. We'll get maybe more human growth hormone and other master hormones in your hypothalamus, pituitary gland.

And and, you know, and then T3 and T4 and of course, you know, for T3 to 4, getting getting fluoride out of your diet's really important too Yeah. So we should say drink non-flourinated water if you can and even shower in non-flourinated water again and of course, your adrenals which is Oh I should also bring up a counter indication if you're on blood thinners you probably should consult with your doctor or health care professional before you take C60, because one of the things the C60 restarts, you know, the mitochondria in the adrenals and adrenals make mineralocorticoids, which are the thing that regulates your blood thickness.

So if you're on a blood thinner and your adrenal start functioning again, now your blood can be too thin. And so, you know, and so really you need to talk to your doctor and if you want to proceed forward, get more testing.

You know tests don't bogus so that and we've had the same thing to a certain extent people on hormone replacement therapy typical case we have a guy 70 years old because it was doctors his testosterone is 350.

His doctor gives him cream, Which is low. Which is yes, his doctor has given creams that he's up by like the low seven hundreds, which is I get that's a good place.

He's been there. Then he started taking c60 2 months later he goes into is like maybe quarterly or biannual test and his testosterone is now 1200. So the doctor backs him off the creams.

So, so that's something that to be aware because one of the side effects of C60 is a big increase in libido. So which is a rise in the androgens obviously.

And, and so that's just something to be aware of when you're taking C60. Yeah, that's key. And you know, going back to sleep with melatonin. Melatonin is this amazing hormone in particular.

You know, I know we know like for example, a lot of research coming out about infrared light, increasing mitochondrial melatonin. A lot of times we think about melatonin just as a sleep hormone, which is super key for that.

But also it helps to buffer oxidative stress in the mitochondria as well. And as people are aging, they're producing less and less melatonin. So it affects their ability to sleep, get really, really good rest and also their ability to repair their mitochondria.

So C60 can really come in and help support that. Yeah, I actually have one of those infrared far. Infrared, yeah. Things. Your head sticks out of it. Definitely. Oh yeah. Yeah.

That's just, that's just I find that that's really improved. my health. Yeah. Just, you know, I'm not a medical doctor to get medical advice, but my personal experience, you know, was, is little by little infrared saunas.

They're portable, they're easy. They're not. Yeah. To that sort of. And, and you can put them just about anywhere. And it's, it's, it's really helped push my blood pressure I'm getting up a little bit that but when infrared I started doing that and keeps back down in the normal range.

Yeah super powerful. So yeah we can stack a lot of these biohacks and that would just help support your health and your longevity even more. Well Ken, This has been great.

I mean, I always I always love talking with you. I love talking mitochondrial science and nerding out on that and all the great benefits of carbon 60 and of course people can find more information at shopC60.com and that's where they can find the products you guys have research there and then you also mentioned that.org for more research as well as.

whatisC60.org and you can get in there and it gives you it has the bunch of links to all these research papers also a little synopsis off on the side and kind of you know, so you know what what is this research paper about?

Kind of it's put in categories. And so you can you kind of learn a lot by just going there and learn, you know, all the different things the C60 that works, the C60 that doesn't And because it's got to be dissolved, it can't be particles.

Great stuff. Well Ken, thanks again always enjoy our conversations look forward to speaking with you again here soon be blessed.