# Doctor Explains What is NAD Nicotinamide Adenine Dinucleotide Transcript

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## Why Everyone Is Talking About NAD

Why is every clinic telling me I should Why is every clinic telling me I should have some NAD, etc.? Well, here's the have some NAD, etc.? Well, here's the thing. We get all the way down, get into thing. We get all the way down, get into your cells, cells aren't working right, your cells, cells aren't working right, or you're trying to, you know, get or you're trying to, you know, get kickstart your cells again, or maybe kickstart your cells again, or maybe you've done some recreational or other you've done some recreational or other things that have really slowed your things that have really slowed your brain down. You know, you've had some brain down. You know, you've had some problems with addiction, etc. Getting problems with addiction, etc. Getting the mitochondria in your cells to wake the mitochondria in your cells to wake back up and do their job helps to get back up and do their job helps to get the body back online. So getting NAD the body back online. So getting NAD the nutrient NAD your top six questions the nutrient NAD your top six questions answered today. Hey, I'm Dr. Ray.

answered today. Hey, I'm Dr. Ray. Welcome to my YouTube channel. I love Welcome to my YouTube channel. I love talking about all things integrative talking about all things integrative medicine, naturopathic medicine, regular medicine, naturopathic medicine, regular alopathic medicine, any questions you alopathic medicine, any questions you guys like to ask and I try and answer guys like to ask and I try and answer them here on video because I just do not them here on video because I just do not have the time to type out answers to have the time to type out answers to everything. So, let's get into NAD.

everything. So, let's get into NAD. First off, it stands for a nutrient First off, it stands for a nutrient nicotenomide adinine ducleotide. We'll nicotenomide adinine ducleotide. We'll just call it NAD from here on out. It's just call it NAD from here on out. It's in the news. People are advertising.

in the news. People are advertising. They're using it. I get a lot of They're using it. I get a lot of questions about is this just some hype questions about is this just some hype thing or whatever. And so, let's just go thing or whatever.

## What NAD Actually Is

And so, let's just go through the big six questions that we through the big six questions that we see. The first thing is, and this is a see. The first thing is, and this is a legit concern that everyone should have, legit concern that everyone should have, is if you ever see something promoted. I is if you ever see something promoted. I don't care whether it's a drug from a don't care whether it's a drug from a pharma company or the natural substance pharma company or the natural substance or a new type of a car or whatever, and or a new type of a car or whatever, and it just seems to do everything correctly it just seems to do everything correctly and and it it cures everything, you and and it it cures everything, you should really probably look into it. Do should really probably look into it. Do a little due diligence around it. All a little due diligence around it. All right? Same with with things in the right? Same with with things in the nutritional world. But I just want to nutritional world. But I just want to break this down so you kind of know the break this down so you kind of know the pluses and minuses of NAD. So first pluses and minuses of NAD. So first thing is we said is nicotine thing is we said is nicotine nicotenomide adinine ducleotide. What nicotenomide adinine ducleotide. What that really means is niain vitamin B3 that really means is niain vitamin B3 comes in two forms. There is nicotinic comes in two forms. There is nicotinic acid and then there is niainamide or acid and then there is niainamide or niainamid depending on what part of niainamid depending on what part of country you've come from. So niainamide country you've come from. So niainamide is the piece that is put into NAD. And is the piece that is put into NAD. And so what you have is a stack of two so what you have is a stack of two niacinomides and then a joining bit of niacinomides and then a joining bit of chemistry that has uh some specific chemistry that has uh some specific sugars in it. So it's sort of a kind of a U/shaped a U/shaped molecule. Why would we care about that?

molecule. Why would we care about that? Well, NAD is kind of the final step as a Well, NAD is kind of the final step

as a co-actor in most of the operations in co-actor in most of the operations in the body that vitamin B3 the the body that vitamin B3 the nicotinomide, you know, family uses. So, nicotinomide, you know, family uses.

## Why NAD Is Usually Given by IV

So, if I can get NAD in its fully formed, if I can get NAD in its fully formed, you know, complex molecule instead of you know, complex molecule instead of just nicotinomide, I'm probably going to just nicotinomide, I'm probably going to get a bigger effect from it. And in get a bigger effect from it. And in indeed, that is largely true. Now a indeed, that is largely true. Now a question people will have is do I have question people will have is do I have to inject because it seems like every to inject because it seems like every place I go looking for NAD they give me place I go looking for NAD they give me an IV or have me injected subcutaneously an IV or have me injected subcutaneously or intramuscularly. Well, the reason for or intramuscularly. Well, the reason for that is it is this giant molecule and if that is it is this giant molecule and if you look when I teach doctors about, you you look when I teach doctors about, you know, the use of these these things like know, the use of these these things like NAD and stuff like that. I show a NAD and stuff like that. I show a picture of nicotinomide and it's sort of picture of nicotinomide and it's sort of this kind of general molecule here and this kind of general molecule here and then this big old funky NAD over here then this big old funky NAD over here and it's like what's going to happen if and it's like what's going to happen if I eat this big old funky molecule versus I eat this big old funky molecule versus I eat this one nicotenomide? Well, I eat this one nicotenomide? Well, nicotine is going to go in largely. It's nicotine is going to go in largely. It's going to be transported into my blood, going to be transported into my blood, but then I got to put a bunch of it but then I got to put a bunch of it together to make this funky NAD together to make this funky NAD molecule. If I take NAD orally, most of molecule.

## Best Oral Precursors NR and NMN

If I take NAD orally, most of it is going to get broken down and it's it is going to get broken down and it's going to be very inefficient. Right now, going to be very inefficient. Right now, here's the footnote. There are a couple here's the footnote. There are a couple types of precursors to NAD that you can types of precursors to NAD that you can take orally. And so if nicotinomide take orally. And so if nicotinomide plain vitamin B3 the nicotinomide form plain vitamin B3 the nicotinomide form is kind of your base then priming or is kind of your base then priming or giving you NAD producing power goes up a giving you NAD producing power goes up a couple of notches with these other oral couple of notches with these other oral molecules. So let's say you don't want molecules. So let's say you don't want to go get shots and stuff like that. You to go get shots and stuff like that. You can take nicotinomide riboide, often can take nicotinomide riboide, often known as NR or nicotinomide known as NR or nicotinomide monucleotide, NMN. Those are two of the monucleotide, NMN. Those are two of the precursor molecules to making NAD in the precursor molecules to making NAD in the body. Well, so is plain old cheap body. Well, so is plain old cheap nicotinomide. It's just nicotinomide nicotinomide. It's just nicotinomide makes NAD easier than plain nasin. NR makes NAD easier than plain nasin. NR and NMN make it even easier. So a lot of and NMN make it even easier. So a lot of times you'll be put on this for whatever times you'll be put on this for whatever the purpose is. as that we'll get to.

the purpose is. as that we'll get to.

## What NAD Feels Like When It Works

But if you really want NAD and you want But if you really want NAD and you want it full force, normally they're going to it full force, normally they're going to give it to an intravenously give it to an intravenously maybe as you know subcutaneous or an maybe as you know subcutaneous or an intramuscular injection. So then next intramuscular injection. So then next question is okay well that's some question is okay well that's some wonderful you know nutritional wonderful you know nutritional biochemistry there Paul why is every biochemistry there Paul why is every clinic telling me I should have some NAD clinic telling me I should have some NAD etc. Well, here's the thing. We get all etc. Well, here's the thing. We get all the way down, get into your cells, cells the way down, get into your cells, cells aren't working right, or you're trying aren't working right, or you're trying to, you know, get kickstart your cells to, you know, get kickstart your cells again, or maybe you've done some again, or maybe you've

done some recreational or other things that have recreational or other things that have really slowed your brain down, you know, really slowed your brain down, you know, you've had some problems with addiction, you've had some problems with addiction, etc. Getting the mitochondria in your etc. Getting the mitochondria in your cells to wake back up and do their job, cells to wake back up and do their job, helps to get the body back online. So helps to get the body back online. So getting NAD levels up in the body helps getting NAD levels up in the body helps because it turns out that the major way because it turns out that the major way that the mitochondria which give you all that the mitochondria which give you all this energy and make your cells operate, this energy and make your cells operate, the major way that they get their sort the major way that they get their sort of electrical current to move energy and of electrical current to move energy and make ATP so that you have energy for make ATP so that you have energy for yourself is through the breakdown of the yourself is through the breakdown of the family of NAD. It's not just NAD but family of NAD. It's not just NAD but it's the family of NAD. So if somebody it's the family of NAD. So if somebody goes and they put some NAD into an IV goes and they put some NAD into an IV bag and then they put an IV in your arm bag and then they put an IV in your arm and the NAD goes in, you're going to and the NAD goes in, you're going to usually feel that you're going to feel usually feel that you're going to feel energy, etc. Well, that's because your energy, etc. Well, that's because your mitochondria are waking up, right? This mitochondria are waking up, right? This is a good thing. So what if I do it the is a good thing. So what if I do it the oral way? Well, if you take NR or NMN or oral way? Well, if you take NR or NMN or even long-term taking niainamide, but even long-term taking niainamide, but remember it's quite a lot slower, you're remember it's quite a lot slower, you're going to sometimes feel the same thing.

going to sometimes feel the same thing. And I've experimented with all different And I've experimented with all different types of this. And I can definitely tell types of this. And I can definitely tell you if I inject it, you feel it right you if I inject it, you feel it right away. Usually if I take plain old away. Usually if I take plain old nicotinomide, which is the cheapest of nicotinomide, which is the cheapest of all of them, I it's very subtle. If I all of them, I it's very subtle. If I take NMN or NR, nicotinomide take NMN or NR, nicotinomide monucleotide or nicotinomide ribocide, I monucleotide or nicotinomide ribocide, I can actually feel an energetic shift, can actually feel an energetic shift, meaning not a, you know, external uh meaning not a, you know, external uh ethereal one, but I mean an actual ethereal one, but I mean an actual energy in my body shift within a couple energy in my body shift within a couple hours of taking it orally. So, it really hours of taking it orally.

## Common Conditions NAD Therapy Supports

So, it really does help. Now, just because something does help. Now, just because something helps doesn't mean it's always the best helps doesn't mean it's always the best thing in the world for you, right? Other thing in the world for you, right? Other things that help your mitochondria work things that help your mitochondria work are thyroid, right? So certainly if you are thyroid, right? So certainly if you have a thyroid problem, you want to fix have a thyroid problem, you want to fix that because you know NAD is going to that because you know NAD is going to help, but it's that's not fixing the help, but it's that's not fixing the thyroid problem. Uh other things that thyroid problem. Uh other things that hurt your your thy uh your mitochondria hurt your your thy uh your mitochondria operating would be toxins. Get rid of operating would be toxins. Get rid of that stuff. You won't need as much. We that stuff. You won't need as much. We mentioned, you know, drug abuse, mentioned, you know, drug abuse, alcohol, it's used in drug abuse, alcohol, it's used in drug abuse, alcohol centers. Same thing. It's we're alcohol centers. Same thing. It's we're trying to undo the damage that was done trying to undo the damage that was done before. So common conditions it's used before. So common conditions it's used for tend to operate around or or for tend to operate around or or circulate around mitochondrial slowness.

circulate around mitochondrial slowness. So recovery, people with long COVID are So recovery, people with long COVID are using it. Seems to work pretty good using it. Seems to work pretty good there. People with chronic fatigue use there. People with chronic fatigue use it. Fibromyalgia. Uh people with po it. Fibromyalgia. Uh people with po other postviral syndromes, people other postviral syndromes, people recovering from surgeries, any recovery recovering from surgeries, any recovery sort of thing. Anybody has a long-term sort of thing. Anybody has a long-term chronic illness can be very helpful chronic illness can be very helpful there. I mentioned in addiction use.

there. I mentioned in addiction use. Now, in addiction use, it's used quite Now, in addiction use, it's used quite

differently. And if you get if you're differently. And if you get if you're going to an addiction center that does going to an addiction center that does NAD therapy, they're usually very NAD therapy, they're usually very specially trained because they're using specially trained because they're using much higher doses than the average place much higher doses than the average place does and they're doing in concert with does and they're doing in concert with other types of therapies. Addiction is other types of therapies. Addiction is sort of a different use of it. But you sort of a different use of it. But you can think of it addictions often to can think of it addictions often to toxicants or toxins in the environment toxicants or toxins in the environment and toxins in the environment literally and toxins in the environment literally stop your mitochondria from working stop your mitochondria from working appropriately. So again, helping the appropriately. So again, helping the cells come back online, especially you cells come back online, especially you stop the whatever uh thing you were stop the whatever uh thing you were toxifying yourself with the whatever toxifying yourself with the whatever addictive substance. Now you're putting addictive substance. Now you're putting nutrients in, you get mitochondria work nutrients in, you get mitochondria work and again your brain will start to and again your brain will start to operate better. And I've known a number operate better. And I've known a number of people who use this in addiction and of people who use this in addiction and recovery and it's a it's a very good recovery and it's a it's a very good synergy. It doesn't fix everything.

synergy. It doesn't fix everything. There many other things you have to do, There many other things you have to do, but that's another reason that it is but that's another reason that it is used. It's also used in people for used. It's also used in people for athletic recovery and other just think athletic recovery and other just think about anything where your cells need to about anything where your cells need to turn back on. Now there's always one turn back on.

## NAD and Cancer Considerations

Now there's always one little footnote and this really deserves little footnote and this really deserves its own video and I will probably make its own video and I will probably make my own video on it but that is should I my own video on it but that is should I avoid it if I have cancer. Now normally avoid it if I have cancer. Now normally and if you look behind me in the and if you look behind me in the fuzziness there's some books I've fuzziness there's some books I've written about cancer and lot some of written about cancer and lot some of them deal with this topic. Normally them deal with this topic. Normally nutrients are not that much of a danger nutrients are not that much of a danger in cancer unless you're doing you know in cancer unless you're doing you know super high amounts in which case you super high amounts in which case you should be working with someone who does should be working with someone who does that right the concern it's a that right the concern it's a theoretical concern and there are papers theoretical concern and there are papers on both sides of this the ledger here on both sides of this the ledger here but the concern is if you use it but the concern is if you use it periodically like let's say you recover periodically like let's say you recover from cancer and you also went to a drug from cancer and you also went to a drug treatment center and they use NAD right treatment center and they use NAD right you're not going to be at the drug you're not going to be at the drug treatment center forever and ever right treatment center forever and ever right so short time to get a job done so short time to get a job done physiologically or pathologically ically physiologically or pathologically ically it's fine. Okay. So, I'm going to turn it's fine. Okay. So, I'm going to turn your cancer back on. Kind of the same as your cancer back on. Kind of the same as if I have a long COVID patient and if I have a long COVID patient and they're somewhere in their cancer they're somewhere in their cancer journey or they or they're in remission journey or they or they're in remission or whatever and I'm using NM tinide or whatever and I'm using NM tinide monucleotide or NR tinide ribocide or monucleotide or NR tinide ribocide or injectable. I'll do it for a particular injectable. I'll do it for a particular outcome to get their mitochondria back outcome to get their mitochondria back online and then I'm going to back off.

online and then I'm going to back off. I'm gonna I'm gonna slow down on the you I'm gonna I'm gonna slow down on the you know putting the NAD into the body. I know putting the NAD into the body. I said there's papers on both sides. Some said there's papers on both sides. Some were like no it can never happen. Some were like no it can never happen. Some were like no we don't know. Some of the were like no we don't know. Some of the best written biochemistry I have ever best written biochemistry I have ever tried to understand and read which means tried to understand and read which means it took me a number of readings to go it took me a number of readings to go through in papers around cancer is your through in papers around cancer is your body remember NAD is in the middle of a body remember NAD is in the middle of a family of molecules. Your body uses that family of molecules. Your body uses that family of molecules for mitochondrial family of molecules for mitochondrial function which is

great but also for a function which is great but also for a ton of other stuff. And if you don't ton of other stuff. And if you don't have a really good robustly healthy body have a really good robustly healthy body and there's cancer that might you know and there's cancer that might you know need a little nudge in one direction and need a little nudge in one direction and you put a whole bunch of NAD into the you put a whole bunch of NAD into the person theoretically according to some person theoretically according to some pretty smart biochemists you could pretty smart biochemists you could metabolize that NAD in a way that might metabolize that NAD in a way that might do that. So it's as I say as a do that. So it's as I say as a therapeutic use again only do what your therapeutic use again only do what your doctor tells you. I'm just talking just doctor tells you. I'm just talking just telling you my experience. But if if I telling you my experience. But if if I see a patient and they have a see a patient and they have a therapeutic goal to get this out of NAD therapeutic goal to get this out of NAD therapy whether it's oral through NRMN therapy whether it's oral through NRMN or IV through you know IBNAD we're going or IV through you know IBNAD we're going to do that goal. We're going to do that to do that goal. We're going to do that treatment protocol. If it's a longer treatment protocol. If it's a longer term thing like long COVID, something term thing like long COVID, something like that, I'm going to start give it to like that, I'm going to start give it to them every day. And then if we get past them every day. And then if we get past a couple of months, I'm probably going a couple of months, I'm probably going to give it to them 5 days a week. And if to give it to them 5 days a week. And if we're out 6 months later and they're we're out 6 months later and they're still needing it, which in some longcoid still needing it, which in some longcoid patients is true, you know, I might be patients is true, you know, I might be like 4 days on and 3 days off just so like 4 days on and 3 days off just so it's a nutritional buildup in the body, it's a nutritional buildup in the body, but I'm not putting more in every single but I'm not putting more in every single day. So as far as danger goes, that's day. So as far as danger goes, that's really it is an area of contention in really it is an area of contention in the scientific literature whether it the scientific literature whether it would have any effect or not. As someone would have any effect or not. As someone who's worked with cancer patients for a who's worked with cancer patients for a very long time, I'm very very very long time, I'm very very comfortable with nutrients and cancer comfortable with nutrients and cancer and most nutrients are not going to make and most nutrients are not going to make your cancer get worse. I promise you your cancer get worse. I promise you that. But because there is this effect that. But because there is this effect where this is a complex molecule and uh where this is a complex molecule and uh there's a difference between me putting there's a difference between me putting you through addiction treatment uh for a you through addiction treatment uh for a couple of months and give you a bunch of couple of months and give you a bunch of it or me putting you through postcoid it or me putting you through postcoid treatment for you know 2 3 4 5 months treatment for you know 2 3 4 5 months and give you a bunch of it or you just and give you a bunch of it or you just taking it forever and ever was two taking it forever and ever was two different dosing strategies. My approach different dosing strategies. My approach is use it for when you need it. As your is use it for when you need it. As your body gets back online and you're getting body gets back online and you're getting more strong and everything's working, more strong and everything's working, you can dial back down, use the simple you can dial back down, use the simple molecule niacinomide, which is just the molecule niacinomide, which is just the plain uh amid form of vitamin B3 and plain uh amid form of vitamin B3 and that one's not going to hurt anything that one's not going to hurt anything and you can use that as maintenance. I'm and you can use that as maintenance. I'm really glad someone asked this question.

really glad someone asked this question. Again, we'll probably do other ones on Again, we'll probably do other ones on this, but that gets me to the big six on this, but that gets me to the big six on NAD. Please check out the other videos NAD. Please check out the other videos we're going to put up here somewhere on we're going to put up here somewhere on the screen. Check out our playlist on the screen. Check out our playlist on YouTube. Uh, and I can't wait to talk to YouTube. Uh, and I can't wait to talk to