

Fed + Fit Podcast Ep. 110: White Rice vs. Brown Rice

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Episode 110 Transcription

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Cassy Joy: Welcome back to another episode of the Fed and Fit Project. My name is Cassy Joy Garcia. I am your host for today and pretty much every day {laughs} here on the show. I am really excited about today's episode. We're going to be answering a question that I get quite a bit. And I've put it off for far too long. So today we're going to zero in on a really fun nutrition science topic. We're going to talk about white rights versus brown rice. We're going to hear the debate. Talk about whether it's paleo or not. Talk about the anatomy of



rice. Goodness, what else are we going to talk about? How white rice is made. Why is everyone all a sudden eating it, if you follow folks on social media. The nutritional benefits of white rice. And how to know if it's right for you. So long term listeners may be excited. I know that you guys really like these more science-y episodes. So I'm really excited to jump into this with you.

Ok, let's go ahead and get started. First, let's talk about the anatomy of rice. I think it's important when we talk about anything nutrition science related that we get a pretty basic understanding of the general landscape. Right Whether that is, if you guys have a copy of my Fed and Fit book, which can be found at Barnes and Noble, all bookstores; what is it called? Books a Million. Of course, also on Amazon. It's available for Amazon prime. But if you have a copy of my book, and you happen to have read the first part of the book, I do a lot of background nutrition talking. You know, our basic biology. Because I think it's important. Thinking about, for example, the three phases of digestion. Before we talk about what goes on with food in our body and why are some foods great for us and other foods not so great for us, where has there been a misstep, what can we work at healing. Before we talk about that stuff, it's a really good idea to just understand basic digestion. What happens in the body when we chew. When we eat. What goes on in our brain. What goes on in the three phases?

So, in that same tone, I couldn't help but when I was writing notes for today's episode. We were going to talk about brown rice versus white rice, I couldn't help but also talk about just very basic anatomy. So bear with me. If you are a rice expert, then this first part is going to be a review. Ok, so the anatomy of rice. Let's talk first about; ok we're going to start on the outside and work our way in. So we're going to talk about four main parts. Now, if you Google a very detailed anatomical representation of a grain of rice, of course you to be able to find other little layers. But these four pieces are what's relevant to today's conversation.

So the first part is the hull, also known as the husk. And that's typically the thickest outer layer of a piece of rice. And we'll talk about what is in all of these components as we continue today's conversation. But that's the hull or husk.



Underneath that we have the bran. And the bran is very, very similar to the hull. It's very similar in as far as the types of nutrients and compounds that it contains. So we've got the hull, which is the thickest part on the outside; the bran, which is still brown. It still has that kind of brown color right underneath it. And then we have this tiny little piece of the rice. If you're thinking about the rice as an oval; a cross-sectioned oval, right? We have the hull on the outside, the bran right underneath that. Both of those two wraps around the entire oval of the rice. And then we have this other tiny little piece towards let's say the bottom/middle that kind of sticks. It's like a little growth that's tacked onto it, and that is the germ of the rice. And we'll talk about why that is of concern in a little bit.

And then in the very center, which makes up the majority volume-wise of the rice, is the endosperm. Also known as the kernel. So the endosperm is what we think of as when you see white rice, that is pure endosperm.

OK. So what are the different kinds of rices that are out there? So we have whole rice, and whole rice typically has all four of these components. It's got the husk, it's got the bran, the germ, and the endosperm. Brown rice; processed brown rice, which is not a whole rice, because whole rice has that thicker husk on the outside. It's kind of crunchy. If you've ever had those kinds of rices. That probably a whole rice. Brown rice has that crunchier husk or hull removed. And so what we're left with is the bran, so it still looks brown, that germ, and the endosperm. The inside. And then white rice has just one of these components; it's just the endosperm or the kernel. So the husk has been removed; which is also known as the hull. The bran has been removed; that other layer of brown. And the germ has been removed.

So, let's talk about; gosh. What do we want to talk about? Let's first talk about the dangers of brown rice. Because I think that this is probably what everybody is the most curious about. And then we'll get into some other little spin off pieces. So, why is brown rice; I mean we grew up hearing that brown rice was the healthiest option out there, you know. It was probably healthier than pasta, because it's a whole food. And it's got all those wonderful nutrients in the outside of the hull. You can see it. I'm thinking about; we grew up, we'd have wild rice



every once in a while, and that has those little bits crunchier, probably, so it had that hull or husk on it. And looking at the all the different colors; there's black grains and there's brown grains and all these other things. And it just seems like it would be the best choice.

But, here's some of the nutritional pitfalls of brown rice. So, unpolished rice. Whether that means it's whole or; what did I call it? Whole or brown. So either one of those. So number one; those of us who are familiar with the paleo lifestyle know that we typically avoid grains. And avoiding grains, it's a nice blanket to toss out over a group of; it's a food group that tends to bother folks' digestive systems. Especially if you're just getting started and you're just trying to heal your gut, or you're just trying to heal your insulin sensitivity. Right? We're trying to right-size our metabolism. Get our body working to be its best, most optimal condition. We typically try to avoid grains. And that's for a ton of reasons, many of which we'll talk about as they are specific to rice today. But one of the reasons, believe it or not, is because of grain-based fibers.

Fiber is an important part of an overall nutrition protocol, right? We all kind of know that. We know that we need fiber for certain metabolic activities, digestive activities in our body. But for the most part, if we're eating primarily grains; I'm talking about cereal grains for breakfast, we're eating breads and things for lunch, and pasta and things for dinner. We're probably actually, believe it or not, getting an overload of grain-based fibers. And grain-based fibers can actually be difficult to digest, and they can be difficult to allow the digestive system and all the different bacteria and everything that's in there to really do their job. It does not foster an optimal condition. So brown rice has a lot of grain-based fibers in that outer hull or bran area.

Number two; let's talk about. Actually, let's talk about spoiled germ first, before we get into some of the specific anti-nutrients. So another reason that brown rice is not necessarily the best choice, is because of the germ. So remember when we were talking about that little piece of the rice anatomy that's tacked onto the side/bottom. And that's, of course, if you're planting rice, that's the part that would turn into plant. The rice plant than you would be using. Now, what



happens is when rice is processed; let's say we have whole or brown rice. And its processed, and it has that little germ attached. That little living piece of the rice has a high probability of actually going bad. It has a high probability of turning rancid. And what happens is if that germ turns rancid, you could possibly have a presence of oxidize polyunsaturated fats. Which are no bueno. Those of us, again, are in this real food/paleo conversation are familiar with the dangers of oxidized fats. They are very inflammatory. They can cause a host of other issues if we consume a heck of a lot of it. So that's something to be aware of.

And actually, what I think is kind of interesting, which I found when I was researching for today's episode, was that's actually the reason why white rice started to become so popular, and why they started producing white rice more than brown rice. Is because it extended the shelf life of the actual food products. So if they were to process the rice, which we'll talk about in a second how that's done. If they processed the rice, polished it off, and just had the endosperm left, it meant they removed the germ, they removed the hull, and they removed the husk, and they reduce the probability of the rice going bad. So that's another reason why white rice became so popular. And there are other ancient cultures, interesting enough, who actually polished. They would grind their rice to remove the hull and the husk because of these anti-nutrients I'm about to tell you about. Because, I don't know if it was intuition, clearly they didn't have the data and the reports that we have today. But for whatever reason, they believe that the rice would be more nutritionally advantageous of they remove those brown pieces.

So, what's in those brown pieces, and why do we need to be so concerned with them? The number one thing that you're probably going to find if you Google this, in addition to today's episode, is you're going to hear a lot about phytates. Also can be referred to as phytic acid. So what is the big deal with phytates and phytic acid? So, phytates bind. It's this property that's found in the hull and the bran. So both of those outer layers. Whether it's the tough outermost layer, or the slightly less tough one underneath that. The brown layers; think of it that way. It is this structure that tends to bind to minerals not only in our food but also in our body. And it depletes our mineral reserve. So it's this little structure.



Let's say if you're eating a bowl of brown rice next to some kale and a piece of grass-fed steak. Those phytates that are in that brown rice can actually reduce the number of minerals you're able to absorb from the other foods on your plate. Not only just the foods on your plate, but let's say that gets into your body, and you've digested the phytic acid can actually go to your body and pull out mineral stores. Which is really interesting. There have actually been some studies shown that some brown rice eaters; folks who eat a lot of brown rice and have done so for a long time, it's obvious that they have lower bodily mineral balances in their bodies. Obviously in their bodies. Than white rice eaters. So people who are eating brown rice over and over and over again are continually depleting their mineral reserves because they're constantly eating phytic acid. So that's probably the number one reason. We have grain-based fibers, we have spoiled germs, which could potentially be a source of oxidize polyunsaturated fats. But we have this anti-nutrient called phytates, which is depleting our mineral reserves. No bueno. So that's one of the reasons. And of course that phytate is also found in other grains, which is why paleo puts a big blanket over no grains.

Next, we've got arsenic exposure as the last danger of brown rice. So, this may be new information to some of you, and this may be old news to some of you. Arsenic is something that is a compound that is found in a lot of rice. There have been a lot of headlines about it. But what's the real story here? So, it's a concern in rice, but it's found in the hull of the rice. Right? That hull is that outermost part. It's also, I believe, it's found somewhat in the bran. I couldn't find definitive notes on it. But brown rice is reported to have 50% more arsenic than white rice. So this is interesting, especially for folks following a gluten-free diet. When we're following not a paleo diet, right? Paleo means that we're eating real foods, right? We're trying to cook real, whole foods at our meals. We're not necessarily relying on gluten-free breads and gluten-free treats. But for somebody who is just following a gluten-free diet, they're probably supplementing their diet with a lot of gluten-free pasta, a lot of gluten-free syrup, and rice cakes, and other kinds of treats. Those kinds of things, a lot of them are made with brown rice. Because rice is inherently gluten-free. Right? And we'll talk about that in a second.



But if rice is inherently gluten free, and they're making these products with brown rice because it's cheaper to make it with brown rice. That's one of the reasons. And another reason is because of this common, I'm going to call it a misconception that brown rice is healthier. So a lot of these products are made with brown rice, and marketed as such. Those folks who are eating more than one serving of brown rice a day, whether that is in a piece of gluten-free bread, or gluten free pasta, or maybe an actual serving of just brown rice on their plate. They could be consuming too much arsenic. And that could be really dangerous. White rice, like I said before, is tested to have half as much arsenic levels present based on some studies. So just some interesting stuff to think about.

So those are the four main reasons. We've got an abundance of grain-based fibers, which can cause digestive difficulties. We have the potential highly likelihood of the spoiled germ. So we're consuming maybe some oxidized fats. We have the presence of phytates or phytic acid, which binds to minerals not only in the food that we're eating and keeps us from absorbing those good minerals, but it can also work to deplete mineral reserves that we have in our body. Which is not great. And then lastly, we have exposure to arsenic. Unnecessary exposure to arsenic. And it's a special concern; goodness, I think I need another sip of coffee. It's a special concern for folks who are following a gluten free lifestyle. And this is something maybe to think about. If you've got friends who are gluten free, and they're eating a lot of brown rice products, this might be a good; maybe turn them to today's episode so maybe they can learn a few things and see why that may not be the best idea. Whether that means that the swap out that brown rice pasta for maybe some sort of a zucchini noodle or a sweet potato noodles. Something like that. If they can just cut back on their consumption of brown rice, it may do a lot for their health overall.

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So, next question. Is rice paleo? What a good question that is, because so many paleo content creators, authors, folks you're going to find online. You might see that they're eating white rice. And the short answer to that is no. White rice is not paleo. It is still a grain, So, why did it find itself on the non-paleo list in the first place? And that is because it's a grain. Remember that it is a naturally gluten free grain, similar to corn. It's naturally gluten free. And if you ever see packaging; I had a friend bring me; or took a picture of a bag of rice, and sent it to me. And he said, "Hey, does rice have gluten in it?" And it was a bag of rice. I don't remember if it was white or brown. But it was a bag of just rice, and it said "gluten free rice." And there was an up-charge for this rice. That's just marketing trying to take advantage of what they consider to be something that consumers are looking for. So remember that rice is already naturally gluten free. If the ingredients read "rice" and that's it, then it's already going to be a gluten free product.

So, no it's not paleo. It is still a grain. And it is also naturally gluten free. So why is everybody all of a sudden eating it? Well, it could be for a bunch of different reasons, and everyone's going to be individual. I do personally consume rice maybe 2 to 3 times a week, at most. Sometimes its way less, and sometimes it's way more. If I'm traveling, I probably eat more white rice than I do when I'm home, and that's because it is somewhat of a safe starch while I'm out. And it's relatively convenient; it's easy to find. Whether that's at a sushi restaurant,



that's a really good easy example. I know I can go get some really healthy protein and some white rice and I've got a relatively balanced meal. Low impact when it comes to negative nutritional consequences. So why are other folks eating it? Maybe A) they need variety. So they're probably already following a paleo type template, and they've been through the rainbow of squashes and potatoes, and beets and plantains, and they just want something else to put on their plate for variety. And if that's what it takes, then by all means enjoy that rice. So they either need variety in that regard or they want variety. Or they've determined that it doesn't have a negative impact on their body.

Now, this is an interesting topic. And I'll talk about it in a second how to know if white rice is right for you. But there's a process you can go through to determine if it does or does not have a negative impact on your body. And chances are, if you're just getting started on a paleo type/real food diet. You just eliminated the majority of those refined carbohydrates, then there's a chance that white rice isn't going to be the best option for you, because your body is still probably going to be slightly reactive. And maybe if your insulin sensitivity hasn't quite corrected itself, you're still going to experience a response to white rice that you would maybe from another kind of refined carbohydrate. So, until your body knows better, then I would recommend avoiding it.

So, what are the nutritional benefits of white rice? And again, I'll talk about more of that in a second. But what are the nutritional benefits of white rice? So again, why are people eating it? They're eating it because it's a good source of carbohydrate. You're going to hear it referred to online a lot as a "safe starch." What does that mean? It means that a lot of the dangerous anti-nutrients, which we've already covered, have been removed and we're left with is a pretty much pure carbohydrate. And y'all know, if you've been a long-time listener or follower, I'm very much pro-carbohydrate. I think it's especially important for women to enjoy. Now, again, if you're brand new to paleo, and you have a significant amount of maybe body fat to lose or a metabolic condition that you're working to offset, that a totally different story for a season. But once we have corrected; we've allowed our body to reset and to heal, carbohydrates are really important. And so, it's a really good source. It's a pure carbohydrate. So when you're looking at your dinner, breakfast, or lunch plate, it's important



to think about. Where is the protein represented? Where is the carbohydrate represented? And where is the fat represented? Those are the three macro nutrients. And if rice is an option for that, then by all means, go for it.

So it's a 90%; rice, if you're looking at the breakdown of the macronutrients, 90% carbohydrate. So that's pretty good. It's considered a safe starch. It has a good amount of folate in it. So although there are a bunch of nutrients. Let's addresses this really quickly. Although there are a bunch of vitamins and minerals in the hull and the husk and the germ, they do represent, if you sat down, and you broke it off, and you looked at all the different minerals that are available, and vitamins, in the brown part of the brown rice, you would see a nice long list. But the truth of the matter is, for the most part, you are not going to be able to assimilate, to absorb, those vitamins and minerals into your body. It's one of those negative consequences; its net negative of what you'd be getting from brown rice versus white rice. I hope that makes sense.

So white rice, what is left in near? It's not as much. It's not as dense when it comes to vitamins and minerals as you might find in the hull. But at least we don't have those anti-nutrients that we're eating that are going to deplete our mineral reserves. So white rice does have, the endosperm does have folate, magnesium, a good amount of folate and magnesium. It's got iron, it's got thiamin and niacin. And something else to keep in mind. If you're trying to figure out how to optimize. If you think you've got an idea that white rice is a good idea for you, and you really want to start incorporating it, but you want to know which variety, because there are so many different varieties of white rice out there. I recommend going towards those longer grain rice. Longer grain white polished rice. They typically have a better micronutrients profile. So what are those? That would be like jasmine and basmati rice. Those are two of my favorites.

OK, so to close. How do you know if white rice is right for you? I can't believe I've said that this whole episode without messing it up, because it could be a tongue twister. OK, so, if your insulin sensitivity is under question, then I recommend pausing before you start to introduce white rice into your diet. And that's just because we want to make sure that we get our blood sugars manageable,



any kind of a metabolic; don't want to call it metabolic condition, because that could mean a whole other slew of things. But if you suspect that you have some significant body fat to lose, and you have some metabolic tendencies that need to be right size, then I recommend following a general paleo template. The Fed and Fit Project is a really good example, it's outlined in the book. You can also enroll in it online at www.FedandFitProject.com. But we spend a minimum of 28 days going through a squeaky-clean paleo protocol before we ever start talking about reintroducing some of these possibly not as offending ingredients back into your diet, like rice. So you've got to get through that first window. Let your body heal, and then we can see what it can tolerate outside of that. So I recommend pausing if you haven't already been through that.

And if you have, and you're trying to figure out, when is a good time to maybe start to reintroduce some of these less damaging grains, like white rice, then I would say give yourself anywhere between, even 28 days kind of on the aggressive sense. But between one month and three months is a good amount time. If you're really wanting to be very careful with this, and you really want to pay attention to your body, then I recommend waiting between three and six months even. I waited about a full year, but I also did all this before white rice was ever even in the conversation on the table.

And then lastly, if you do choose to eat white rice with your meals, then I recommend making sure that you're also eating it with some healthy fats, and proteins, and some other leafy greens or other cooked vegetables. All of those other macronutrients that you can eat with rice. Especially the healthy fats. So whether that's some butter that you made with the rice or something like that. It can help you absorb the nutrients that are available, and it can also help reduce just that kind of pure starch impact of just eating rice. So if you're hungry, I wouldn't recommend just having a couple of spoonfuls of pure white rice. I would make sure that you've got some fats in there, and you're combining it with some other really good healthy macros.

So I hope that was helpful for you guys. And like I said before. If you can think of folks who would really enjoy this episode or get something from it, I recommend you refer them to the podcast. Of course, they can look it up just like you did



over in iTunes. And if you like the show, please go leave us a review in iTunes. It actually does a lot to get these shows into the hands of other folks. So leave us a review, it really means a lot. As always, you can find a full transcript of today's show over at www.FedandFit.com. And if you have any further questions, that would be a really great place to leave it. Head on over to the blog, leave a comment there for this episode. It's episode number 110. Whoo! I can't believe we're getting all the way up there. So thank you guys so much for listening, and we'll be back again next week.

