

EPISODE 828

5 Amazing Foods That Regenerate Stem Cells & Repair the Body

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SHAWN STEVENSON: You're about to discover five amazing foods that regenerate your stem cells and repair your body. If you need something regenerated, repaired, or supported in your body, stem cells can make it all happen. Stem cells are essentially the seed cells that grow into the different tissues that you need to rebuild yourself. Whether it's from injury, age related wear and tear or even chronic diseases and infections, our stem cell supply has to kick into action to help us to heal. Human beings are literally made from many types of stem cells. There are totipotent stem cells. As soon as an egg is fertilized, cells start to divide in it. And if you were to extract some of those cells, you can literally grow an entire person with those stem cells.

Then there are pluripotent stem cells. These are located inside the blastocysts. And these stem cells have the elasticity and intelligence to become essentially any part of the human body. They're really remarkable. Next, we have multipotent stem cells. These are a bit more specified. Generally, multipotent muscle stem cells, for example, will only become muscle cells. But there is some capacity for diversity there. And finally, we have adult stem cells. Adult stem cells are located in specific areas of our body, and they have the ability to generate all the cell types from the organ from which they originate. For example, cardiac stem cells have the potential to regenerate our entire heart.

Stem cells reside in essentially every tissue in your body, including your brain, your muscles, and even your gut. But there are some tissues that have vast stores of stem cells like your bone marrow. Now the magic of regeneration doesn't just happen because you have stem cells. They have to be mobilized and they have to be signaled by the organs and tissues that you want to have repaired. Our mission today is to learn which foods can support and improve your body's supply of stem cells and also support mobilization. And at the end, we'll throw in some powerful tips for cell signaling to get our stem cells repairing the areas of our bodies that we truly want to have regenerated. Now let's kick things off with number one on this list of five stem cell supportive foods.

Number one is chocolate. Now here's my friend and colleague, research scientist at Harvard University, Dr. William Lee, and this is what he shared with me about stem cells and chocolate.

DR. WILLIAM LESS: We know that really dark chocolates are made with cacao, cacao is a natural substance that comes out of a bean and inside those cacao beans are polyphenols, right? Really potent polyphenols. And so dark chocolate, which is usually 70 percent or higher,

and you can just look at that number on the side of a chocolate bar, you might find the darker, the better. The higher the number, the more potent it actually is actually can help mobilize those stem cells out of our bone marrow.

There's a study I write about from UCSF in San Francisco, University of California, San Francisco, where they took patients with coronary disease. These are people that already had heart disease with narrowing of their arteries and they gave them hot cocoa. So, you know just like dark like made with dark chocolate. As super dark chocolate, twice a day and they had them drink that every day for a month, 30 days.

And they looked at their blood from the beginning to the very end. And they found that the only thing they ever did was actually drink this cocoa. That's the only intervention. It doubled the number of stem cells in the same person from beginning to end. And it also improved their circulation, their blood flow when they measured it using the same kind of tests that we use in a medical clinic or for biotech companies. Actually doubled the, the activity of their blood flow. So this is quite an amazing story that. Even something like chocolate, a small drink, it's only, it was only an eight ounce cup twice a day, was powerful enough to do this.

SHAWN STEVENSON: Now as Dr. Lee shared, the darker the chocolate. The bigger the boost of stem cells. And to reiterate, we are not talking about the run of the mill chocolate candy bars that we grew up with. The ultra processed versions of chocolate are more likely to rob you of your stem cells than to provide a boost to your stem cell supply.

Now here's where this gets really interesting. It's been known for years that chocolate can actually spark the creation of new brain cells. And now we know that it's a likely the impact that chocolate has on our stem cells. A study published in the British Journal of Clinical Pharmacology details that cocoa powder and chocolate contain a large percentage of antioxidant molecules and other substances that display several beneficial actions on the brain. The scientist report states, " they enter the brain and induce widespread stimulation of brain perfusion. They also provoke angiogenesis, the creation of new blood vessels, neurogenesis, the creation of new neurons and changes in neuron morphology, mainly in regions involved in learning and memory".

Again, I have to emphasize this does not mean anything that has the word chocolate written on it. If you were to go to a KitKat bar, for example, looking for some of these benefits is more likely to break you off with a deficiency than a boost in your stem cell supply. All right. So that whole moniker, you know, break me off a little piece of that KitKat bar, it's going to break you off some problems.

SHAWN STEVENSON: And what we're really looking for is the root of chocolate. So the darker the chocolate, that means the higher the percentage of cacao. Today, many people are aware that chocolate comes from the seed of the cacao fruit. Cacao, "beans", cacao nibs, cocoa butter, and cocoa powder can all be health supportive foods. The closer they are to the source, i. e. The higher they are in real cacao and keep in mind, it's not just the boost in stem cells. It's the improved cellular signaling that certain foods and behaviors can provide. This is another place where cacao really stands out.

A recent human study conducted by scientists at UCLA and Loma Linda university revealed that dark chocolate upregulates genes involved in neural signaling and sensory processing. So there it is in black and white, or should I say dark and white chocolate. Now we can get chocolate in as these studies mentioned via concentrates like cacao powder and making simple drinks out of it, adding to smoothies and making hot chocolates and things like that.

Or of course, getting a little bit of a high percentage organic, ideally dark chocolate bar from time to time. But really that concentration of what's seen in the data is going for the cocoa powder and making drinks. So again, leveraging this can help us to boost our stem cell supply and also potentially improve cellular signaling to send those stem cells where we need them to go to truly repair our bodies. Now this is just number one on this list of powerful science backed foods that are proven to be stem cell supportive. Now let's move on to number two on our list. And number two is turmeric. There's a specific compound found in turmeric. That's getting a lot of attention right now for its impact on stem cells.

This compound is called R tumorone. And a study cited in the journal Stem Cell Research and Therapy detailed how neural stem cells proliferate 50 to 80 percent faster when exposed to varying levels of R tumorone. And animals injected with R tumorone showed both increased proliferation of neural stem cells, meaning more total neural stem cells and increased neurogenesis. This means more neural stem cells turning into actual neurons. In addition to the remarkable power of R tumorone, turmeric has many other phytonutrients that support stem cell function, a little known reality is that stem cells act upon inflammation in our bodies. And many people today are experiencing a chronic state of systemic inflammation that's literally draining their body's stem cell supply.

One of the most notable anti inflammatory nutrients ever discovered comes from tumeric, too. And that nutrient is called curcumin. Curcumin is shown in numerous studies to reduce inflammation, including a meta analysis cited in the journal, frontiers in Pharmacology. Plus a randomized placebo controlled trial conducted by scientists at UCLA found that curcumin appears to reduce inflammation in our brains and even improve memory and attention span.

SHAWN STEVENSON: Turmeric has been utilized for thousands of years, and now we have journals that are dedicated to pharmacology. Affirming its power and helping to reduce inflammation, often on par with many medications. Now the key here is being able to add this in creatively. Of course, we can make some incredible curry dishes with turmeric. We can also add some to our scrambled eggs and different bowls and things of that nature. But keep in mind when we're talking about studies like this, we're looking at therapeutic amounts, therapeutic doses of tumeric.

And if you're going to supplement like I did today, I want to make sure that you're utilizing organic tumeric and also a formula that has cofactors, nutrient cofactors, that increase the assimilation of the tumeric to ourselves. The curcumin, the artumarone, all those compounds that we're looking for. There are specific nutrient cofactors proven in multiple studies to really help us to assimilate and use these incredible nutrients. The tumeric supplement that I've been utilizing for years is certified organic with no binders or fillers and an outstanding money back guarantee. It's the tumeric complex from paleo valley.

And right now you can get 15 percent off their incredible tumeric complex. When you go to paleovalley.com/model, that's P a L E O V a L L E Y.com/model for 15 percent off their amazing tumeric complex. And again, they have bio potentiators, these nutrient cofactors coming from things like ginger from black pepper from coconut oil, all in that formula to make sure that it's really bioavailable. So you get the results that you're looking for. So it's an outstanding product. Again, I had it today. I've been utilizing it for many years and it's one of these other powerful foods well documented in peer reviewed data to really support stem cell production, mobilization, and also cell signaling. And with that said, we're going to move on to number three on this list of powerful stem cell supportive foods.

Number three is fatty fish. There's an incredible study that was conducted by researchers at Stanford University School of Medicine. They uncovered how omega 3 fatty acids like those that come from fatty fish have a tremendous impact on stem cells and body fat. For many years, scientists have known that a defect in an ancient cellular antenna called the primary cilium are linked with obesity and insulin resistance.

They just didn't know why. But recently, these researchers discovered that the strange little cellular appendage is sensing omega 3 fatty acids in our diet. And this signal is directly affecting how stem cells divide in our fat tissue. The lead author of the study, microbiologist, Dr. Peter Jackson stated, "When we saw that the cell was responding to omega 3 fatty acids, we realized that this had changed from just a molecular biology story to a story showing the molecular biology of how diet controls stem cells".

SHAWN STEVENSON: Part of what their research uncovered was how omega 3 fatty acids reduce inflammation and stop fat cells from becoming overfilled. The most science backed source of these omega 3s are fish like salmon, mackerel, sardines, tuna, herring, and more. The research indicates that it's particularly the omega 3 fat, DHA, that has such a profound influence on our stem cells. A plethora of studies have shown that including multiple studies cited in the international journal of molecular sciences have shown that DHA is critical for protection and stimulation of our neural stem cells. So to be clear, this isn't just any omega 3, right? There are multiple forms of omega 3 fatty acids.

So it's DHA that we're primarily looking for. DHA is docosahexaenoic acid. There's also EPA, which is eicosapentaenoic acid, and then there's ALA. Now ALA is the most common form of omega 3 found in plant foods. And that's alpha linoleic acid by the way. And it does have a lot of roles for ourselves, mainly used as energy, but DHA and EPA in particular, again, DHA is used for structural fats in our body. Things like making our neurons enabling signal transduction. And also it's heavily involved in our stem cell production and stem cell signaling. So, we want to primarily find a way to get in DHA on a regular basis. It is that powerful. So where do we find DHA in our diets? Again, yes, fatty fish is a great source, but also lean fish have some DHA too.

Grass fed beef is another source of DHA. Eggs, the egg yolk in particular, is a great source of DHA. And also we can convert some ALA into DHA and EPA. Alright, so eating a variety of plant foods that are rich in the plant form, again it's ALA of omega 3s, our bodies can convert some of that into DHA and EPA. That's how important it is. We developed that capacity through evolution to make that conversion. But, and this is a big old but, our bodies can only convert a small percentage upwards of 75, 85, 95 percent of the ALA that we're trying to convert into DHA can get lost in the conversion process. So it's simply not efficient.

You'd have to eat a butt load. As a scientific phrase, a buttload of chia seeds and hemp seeds and flax seeds to meet the needs of your DHA requirements. But this is again, not to say that those foods cannot be helpful, but this does not have the DHA and EPA that we're looking for. So we're going to find those in animal foods. So what do we do if we're doing a vegan or vegetarian protocol? Well, there are great supplements now like krill oil, for example, which is a microscopic shrimp. Okay. It's microscopic and it's really rich in astaxanthin. So wherever people lie on their diet framework or their ethics. Krill oil might be a great source because we know there are several studies affirming how powerful it is in providing DHA and EPA and actually being bioavailable to our bodies. Now, if we're going truly strict vegan, then we'll need to look at an algae oil. So this is going to have the DHA and EPA there.

SHAWN STEVENSON: But unfortunately, we don't have a lot of peer reviewed data affirming its bioavailability for us as humans. But we do know that it's there and I don't want you to wait around if you are doing a vegan or vegetarian protocol get yourself some algae oil like yesterday. This is so important because a study that was published in the journal Neurology Found that people who had the lowest intake of DHA and EPA had the highest rate of brain Shrinkage. We're literally losing our brain matter when we're not getting in these omega 3s that matter. So please, please hear my call today. Make sure that you're getting in a great source of DHA on a regular basis. We need it for our brain. We need it for our stem cell production, self signaling and a whole lot more.

And also in talking with neuroscientist. Dr. Lisa Moscone When we were hanging out in New York. She shared with me and she's at NYU by the way, and she's actually looking at the brain doing brain imaging studying nutrition, looking at the impact that certain nutrients have on the brain. She shared with me that it's not the fatty fish alone. It's the eggs of the fatty fish. Things like caviar, things like salmon roe that have the highest amount of DHA of any food in the world. And so these things are really foreign to me. Coming from my background, growing up in the inner city, I saw caviar on Lifestyles of the Rich and Famous with Robin Leach, right?

And I just thought it was super weird, but I get it now. There's so many valuable nutrients there in particular that DHA can be a game changer. And so whether or not you're coming across some caviar or salmon roe, actually, Paleo Valley has a great wild caught fish roe product that you might want to check out as well. And again, that's at the same place. paleovalley.com/model. You'll get 15 percent off of that as well. Now this edition of fatty fish is particularly important for me because this was one of the foods proactively that really helped me to transform my health to really activate that stem cell capacity. When I was 20 years old, I was diagnosed with I have severe advanced arthritis of my spine and very low bone density.

As a matter of fact, about five years earlier at track practice, I broke my hip while running at school. All right. As a track practice doing a 200 meter time trial and I broke my hip because my bone density was so low. Cut to about five years later, I get diagnosed with degenerative disc disease where my introvertible disc were rapidly degenerating. I was just 20 years old and my physician said that I had the spine of an 80 year old man. Again, at the age of 20, I was just a kid. These conditions of breaking one's hip, having degeneration of the spine is usually reserved for people much, much older. And no one stopped to ask, How did this kid break his hip from running?

How is his spine breaking down so rapidly? I had a very old biology, even though I was chronologically very young.

SHAWN STEVENSON: And for me, that led to an intense amount of pain and suffering, loss of function. And I went in initially to the doctor when I was 20, because I was having difficulty walking normally. I couldn't really extend my leg as I was walking. So my gait was kind of odd and I couldn't seem to like stretch or get this, this pain to subside. And so I went in and he did a couple of tests and he sent me in to get an MRI of my spine, which I'm just like, my leg is what's bothering me. You know, mentally, I didn't say this to him, but, I was like, my leg is what's bothering me.

Why are we looking at my back? And this just shows how little I knew at the time about human physiology and about this connection and all those nerves running through the spine that was affecting my leg. And once we got the MRI back and he gave me the diagnosis, you know, I was just kind of in shock. It didn't really make sense. And so I asked him and maybe this was a result of me being an athlete for so many years and taking nutritional science class. And when I took it, by the way, on a pre med track, I took it because I thought it was about fitness. All right. It was an elective, big auditorium class. So I thought maybe diet had something to do with this.

Maybe possible. I don't know. I don't know where the question came from. But I asked him, does this have anything to do with what I'm eating? Should I change the way that I'm exercising, right? Because just hearing that I have this diagnosis didn't make any sense. And he said that this was incurable. When I asked him, does this have anything to do with what I'm eating? Should I change the way that I'm exercising? He literally cocked his head to the side, kind of shook his head and just like looked at me with pity. And like I was from another planet, like it didn't make sense to him. Like he said, this has nothing to do with what you're eating. This is something that just happens.

This is something that just happens. Now that in and of itself where I am today, over 20 years of experience working in this field that's abandoning basic laws of physics. Now, it might be different in maybe in little pocket universe, but we have causality here. Nothing just happens. There is a causative agent. There's a cause and effect. This wasn't just happening, there's a reason behind it, but he did not know that reason, so he told me there was nothing I could do about it. As a matter of fact, he told me that, you know, he said that this has nothing to do with what you're eating, but he wrote me a prescription to eat some pills.

He wrote me a prescription to eat some drugs. This has nothing to do with what you're putting in your mouth, but go ahead and put these drugs in your mouth anyways. Right? Again, another logic check that I wish I had at the time and I want to empower you to have and the people that you care about to have to be able to ask questions.

SHAWN STEVENSON: And the biggest takeaway from this was in saying that this has nothing to do with what I'm eating. This is something that just happens. He also said, I'm sorry that this happened to you. This is something that you're just going to have to live with. We're going to get you some medication. We're going to get you a back brace.

We can look at you for surgery, potentially. You know, you're still young. And he sent me on my way. So he sent me out the door with complete disempowerment. I came in there looking for a solution. I just wanted to feel good. And I left there. And I went from a nuisance of a pain to within two weeks, chronic debilitating pain that haunted me every moment. Not just of my waking life, but I struggled to sleep for two years because just moving while I was asleep, I would get the sciatic shock down my leg that would wake me up, it would jar me awake. And so I was even afraid to go to sleep. I'd just go to sleep out of pure exhaustion. I had to take another medication just to help me to stay asleep at night.

And that was my life for about two years. And thankfully, I had people and this is the importance of having people. Having access to education and good people in our lives and making that a mandate. My grandmother was bothering me, she was, she was bothering me, calling me, checking on me, even though I was saying, I'm okay, grandma, stop worrying about me. I'm okay. I was not okay. And after seeing multiple physicians to get a second opinion, which I implore you, if you ever get, a diagnosis that could be life changing. Please seek out a second or third opinion. But here's the key. It's not just getting a second opinion. Einstein said that you cannot solve a problem from the same level of thinking that created the problem.

If you're going to another physician that is thinking the same way as the one that you previously saw, you're probably going to get the same bill of goods. You're probably going to get the same diagnosis and the same treatment. That's what happened. I'd go see another doctor, hoping for a solution. I'd leave there with more pills and another note, another prescription for bed rest and no activity. So I didn't have to work. And so even with that, they gave me permission to do nothing. And because I was struggling in my life, coming from where I come from, living in Ferguson, Missouri at the time. Trying to be the first person in my family to go to college, let alone graduate from college and the weight of the world on my shoulder.

When I got that permission slip for them to give up, to do nothing because there was nothing that I could do, I took it. Subconsciously, I took it. Although my entire life, I'd been a fighter. I didn't want to fight anymore. I didn't want to fight anymore, so I took it. And not only was my spine and my bones atrophying, now the rest of me was atrophying because I spent most of my days laying on the ground or sitting on the couch.

SHAWN STEVENSON: Doing everything that I could to not stand up because every time I would stand up I'd get that electric jolt down my leg. That would be a 10 out of 10 pain for a split second 10 pain will drive you insane. But it happened such a split Fraction of a second.

It was enough to just keep me going but to keep me cautious as hell. And so that was my, that was my lot in life for about two years. And of course my mental health suffered tremendously. I was barely hanging on in college. I went from a full credit load, 12, 15 credit hours to three, you know, multiple semesters, just like barely hanging on. So I could still have that mental framework that I'm a college student and I'm still going, but I was suffering. I was suffering. And we do not have to live like this. We can do something about it, but we have to change the way that we're being educated about our health. We have a healthcare system that is designed to treat the symptoms of the things that ail us.

It's not designed to remove the cause of the condition. There was a cause why my spine was deteriorating, why my bone density was so low. And thankfully, again, having good people in my life, my grandmother, after seeing that final physician. That night, I sat there and she came to my mind and I realized that I'd been giving my power away these past few years, looking for somebody to help me, to fix me.

And they were literally telling me that they could not help me, but yet I was still begging. I was still going, looking for them to fix me, and I had a revelation. And I simply changed the question that I was asking myself habitually, because we all have what's called a dominant question. We all have a mental reflex, it's called instinctive elaboration, where our brain is always seeking out the answer to the primary question that we're posing. And oftentimes this is subconscious. But my primary question at the time for those two years of suffering was why me? Why me? It's just going on in the back of my mind all the time. And I'm looking for evidence in my environment. Why this is happening to me, why my life is so bad, why I'm suffering? Just things to affirm that.

And I simply asked that night a different question and it changed my life. I asked What can I do to feel better? What can I do? The emphasis is on the word I. What can I do to feel better? What can I do to be healthy? I never asked that question because I was looking for someone else to fix me. And I went to sleep with that on my mind and I woke up the next morning and I created a plan. Because yes, I made that decision which is the most important part of this entire story. For anybody's story who's come back from anything traumatic. I decided. I decided to get well come what may nothing was going to stop me.

I decided. But it's not just that decision that makes everything change. It's the action that comes along with it.

SHAWN STEVENSON: And so I put a plan together and that plan entailed some changes in my movement practices, basically going from no movement to a little movement. All right. And that was kind of my low hanging fruit, having a background being an athlete for so many years and working with a bunch of coaches over the years. But the game changer really was being able to improve my sleep quality because if you're not sleeping, you're not healing. And also providing my body, providing my cells, my tissues, my stem cells. Providing the raw materials that my body needed to rebuild me, that changed everything. And so when I'm talking about the benefits of Omega 3's.

This was one of the first things that I saw peer reviewed study. A friend of mine took me to a health food store randomly. Again, the health food store had been there many years before me. But I didn't know it existed because I was in my disempowered mindset. I was in my why me mindset. But when I was in my how can I feel better mindset, now my friend that I had known for several years takes me to this health food store. And in this particular book, the study affirmed, and here's the study reiterating a more recent study reiterating what I read all those years ago. And this study was published in the peer review journal PLOS one, the public library of science one. And I found that the consumption of omega threes can improve bone mineral density, specifically in the hips and the lumbar spine.

These were the two regions where my body happened to be breaking down. Where was I getting Omega 3s in my diet at the time? My fast food diet. Because that's the big part of the story. Living in Ferguson, Missouri, surrounded in this glorified food desert with ultra processed foods. They were incredibly cheap.

They tasted fantastic. Because they're made by scientists to taste fantastic. I was eating fast food every single day of my life unless I didn't have 2 to go to Jack in the Box. Alright, but then I just eat ultra processed food at home. So, a typical meal might be a can of ravioli. Not Chef Boyardee though. The off brand stuff from Aldi's. I thought it tasted better. All right. The SpaghettiOs as well. That was a common, family can though. I'd eat a family can of SpaghettiOs. All right. Or I just, whip up a box of macaroni and cheese. Okay. And these would be my meals when I didn't have a couple of dollars.

And I, of course, ramen noodles. All right. With the extra MSG, I became a scientist with that as well. You know, just the splicing and dicing the perfect amount of noodles to the, to the flavor packet. All right, these were all the foods that I was eating. Where am I getting omega 3s in any of those things? I wasn't. I was radically deficient, but when thinking about bone density I was being marketed to, as much of society was, that it was through milk that I was going to get strong bones because of the calcium. It's the calcium. Calcium, yes, indeed is a factor in our bone density, but there are key nutrients that enable our body to actually assimilate and use the calcium

SHAWN STEVENSON: One of those is omega 3s. And so at this time because just again the low hanging fruit not really having an awareness of nutrition to the degree that I would eventually have, of course far from it. But I was now shopping at whole foods and wild oats and going to these health food stores, and I really didn't have much money. But I was getting things that were on sale to the best of my ability and I began eating a lot of salmon a lot of fatty fish. Looking for these omega 3s and also supplementing as well. But this was a huge key for me because I didn't know about a lot of the other things that we were talking about today I didn't know about the benefits of chocolate.

I didn't know about the benefits of turmeric, but I definitely, definitely consistently implemented omega 3 fatty acids and it made a marked difference in my health. Because there's a happy ending to that story, obviously about nine months later, I was out of pain in six weeks, by the way. But nine months later, when I got the scan done of my spine, my two herniated disc that were severely degenerated had now retracted into place. And I regenerated some of the density of those discs and eventually getting some scans done years later. So this is like eight, 10 years later, my disc were healthier than that of the general population, the demographic in the same age bracket as me. How on earth is that possible? It's not just possible.

That's what's supposed to happen. That's what's supposed to happen. We don't have to break down and degrade like we've been programmed in our society, especially when we're young. Like that doesn't even make sense. And so that's why I'm so passionate about this. And I really want you to take this to heart. We can heal. We can regenerate. Our bodies have so much capacity. Some of the research that we're covering is also in older populations. Many of these things being able to be implemented and make a significant difference in healing. So with that said, we've covered three of these powerful stem cell supportive foods.

Now we're going to move on to number four on this list and number four is a special one for me. This was one of the early things that I adopted bringing into the fold as well. Number four is the super algae spirulina. A study titled spirulina promotes stem cell genesis and protects against LPS, that's lipopolysaccharide induced declines in neural stem cell proliferation, was published in the journal PLOS ONE. The scientists discovered that spirulina has the potential to improve stem cell genesis in the brain and reduce inflammation. Spirulina has been a major protein source for human civilizations spanning thousands of years. Its use has been traced back to the ancient Aztecs of Mesoamerica. But more recently, its potential has jumped light years ahead with NASA initiating research proposing this nutrient dense algae could be utilized by astronauts in space.

SHAWN STEVENSON: Spirulina is the most protein dense food in the world. It's about 71 percent protein by weight, and multiple studies have affirmed its benefit for our brain health and our metabolic health as well. In fact, a double blind placebo controlled study found that participants who utilized spirulina lost more weight and had a greater reduction in body mass index than those taking a placebo. Obviously a really, really remarkable food. Literal rocket scientists are like, you know what? We can use this in space. It's so nutrient dense. This can help to nourish astronauts. Crazy. But again, it's been utilized for thousands of years. Ancient, old, brand new, right? Ancient, old, brand new. But this is one of those things.

Spirulina for me at the time, because I was just all about whatever is going to get me healthy, whatever is I'm about that life. All right, but for the average person you're likely not gonna be out here. Somebody say hey, can you pass a spirulina? It's just kind of weird. All right, we're pat this super dense green algae. All right. This is something that it's one of those things where once we know the science, Absolutely. And also we know the history. So Again, Aztecs, Chad in Africa, for example, like it's been utilized by civilizations all over the world, but we've got to look at what's the on ramp. How do we get this into our bodies to get the benefits?

Of course, this is something that you could add to smoothies and juices and things like that, but you gotta be able to kind of hide the flavor. All right. It's great. Let me tell you, let me give you a tip. It's fantastic in guacamole. Fantastic. A little spirulina and make the guacamole look a little, you know, space age green, but it, it just goes together.

And I think that that's what the Aztecs were doing. They're probably making some guac in, you know, whatever they were dipping the guac with, you know, whatever they're doing. But it goes, it goes great together. But also this is one of those things that's highlighted in a green juice blend that I've been utilizing for years, my family and I for probably about eight years now. And this is the green juice blend from Organifi and it has spirulina, it has chlorella, it has moringa. But it also has these incredible superfoods like ashwagandha and this amazing mint flavor. And they also have a crisp apple flavor. So it actually tastes refreshing. It tastes really good. So if you want to get it in that way, that's another option for you.

And by the way, you can hook yourself up with about 20 percent off of their amazing green juice blend. If you go to Organifi.com/model. That's O R G a N I F I .com/model. You're going to get 20 percent off their green juice blend and really store wide. And I think you're going to really love some of the things that Organifi is doing all organic. They really have high standards. And it's great to travel with as well. They have these go packs as well. So there's some that we bring with us when we're traveling, when we got like basketball tournaments and that kind of thing, or I'm traveling to speak. These are things that I like to bring along with me. So again, that's [Organifcom/model](https://Organifi.com/model). And now we're at our final one of these five powerful stem cell supported foods.

SHAWN STEVENSON: And number five on this list is colostrum. A study published just months ago by Italian scientists revealed that bovine colostrum has the potential to stimulate mesenchymal stem cells and regenerate tissues. Mesenchymal stem cells are characterized by their ability to self renew and differentiate into a wide variety of cells. Colostrum is now being heavily studied for its benefits in regenerative medicine. Now, some people might be wondering what the heck colostrum is. Colostrum is the first milk that mammals produce and it has literally dozens of growth factors dozens of immune factors. And also all amino acids, all essential fatty acids, plus a plethora of vitamins and minerals.

And the adult stem cell foundation endorses the use of colostrum because it's been found to stimulate the release of adult stem cells from the bone marrow and into circulation. Plus the growth factors are already there to help them to work. Now there are many companies that have powdered colostrum products today. Just make sure to do your homework on the company. And it's easy to add to things like smoothies. Or to make like frozen treats like yogurt pops yogurt and fruit pops and things like that. Just creative ways to get some in. And also again paleo valley adds some colostrum to their whey protein as well So again, lots of great options out there.

But again these foods are science backed. They make a tremendous difference when it comes to Regeneration of our tissues when it comes to repair when it comes to supporting our health overall because sometimes we have issues lingering in the background that we don't really know about yet. So just being able to support our bodies to support. Even when it comes to our immune system stem cells are involved in that when it comes to our cognitive function when it comes to our digestion. Stem cells are involved in everything that really makes us who we are.

These are the seed cells that become the cells of our bodies and many of the systems of our bodies. And so this is very, very important and having foods that just really are cut above everything else when it comes to the stem cell process is truly powerful. And now we've covered five amazing foods that support stem cell production, mobilization, and more. But that's again, just part of the equation. We want to stimulate the cell signals to make the stem cells and reparative action go where we want it to go in our bodies. And the good news is that your body already knows where to send the stem cells. Your body already knows what to do to repair you. I was in fear.

I was worried that too much time had passed. It had been several years. Am I too far gone to be healed? But as soon as I started doing the right stuff, as soon as I started removing the cause of the problem and adding in the things that help my body to repair itself, it happened so swiftly and so gracefully.

SHAWN STEVENSON: But in addition, again, our bodies know what to do already. If we just provide the signals, there are a few things that are shown to help the process of getting this, the stem cells and the repair to go to the specific part of our body that we need to have repaired. And one of those is exercise, providing some movement and exercise for the tissues that need to be repaired can dramatically accelerate the healing process.

So when we're able to move the tissues as intelligently and safely as we can, we're able to drive a variety of reparative factors to the site of the injury or the place again that we're looking to regenerate. A fascinating study conducted with older adults aged 55 to 77 and published in the journals of gerontology series a found that an injury can heal about 25 percent faster with regular exercise. This is so important. Please do not overlook this. The worst thing that we can do for any of our tissues is to not use them. Of course, if we're experiencing an acute injury and we're experiencing a lot of pain and inflammation. Yes, we can give ourselves some time, maybe a couple of days to let the inflammation to kind of tamper down a little bit, but we need to start doing what we can.

This is really where the field physical therapy is at now is getting you moving, getting the tissues mobilized, getting blood flow there, really helping to support through movement is where the science is at today. But of course doing this in an intelligent, safe manner. Now with that being said, if you're not using your tissues, if you don't use it, you lose it. Really as simple as that. But it's not just the exercise that helps to drive nutrients to the site of repair. Exercise also boosts glutathione levels. Glutathione is a major antioxidant that we all produce that has a plethora of roles in our bodies. In 2023, scientists at UCLA affirmed that improving glutathione levels could regenerate our body old muscle stem cells.

Essentially, they found that glutathione can make old muscle stem cells behave like young muscle stem cells and help improve the body's ability to recover from injury. When we get older, one of the researchers stated, " if all stem cells could be kept functionally young, maintaining tissue regeneration across the lifespan, would be feasible" . And glutathione was a major factor in being able to do this. Now, what type of exercise works best when it comes to glutathione? Well, the study that was published in the European Journal of Preventative Cardiology found that both cardio based exercise and strength training boosts glutathione. are glutathione levels.

But the scientists found that participants who do both types of exercise have the most pronounced boost in glutathione. Get you someone who could do both. All right. Mixing in both types of exercise. It's just obvious to train ourselves in different ways, but this is where we see the biggest boost when it comes to glutathione and to top it all off the Journal of Muscle Research and Cell Motility affirmed that Exercise can boost the supply of adult stem cells

SHAWN STEVENSON: And it appears a big part of this benefit is from glutathione. So we're now we're starting to put the pieces together now other ways to provide movement blood flow and cell signaling for faster healing include massage therapy include acupuncture include again, these have been utilized for thousands of years, these practices, and especially if we're in a situation where we functionally can't use those tissues getting treatments like these can be very helpful. But also just being in addition another supportive factor in healing. As a matter of fact a 2017 study published in the journal stem cells revealed that acupuncture triggers a neurological mechanism that releases stem cells that promote tissue repair and relieve injury induced pain. Incredible, incredible. So these can be additions If we're talking about cell signaling, exercise, massage therapy, acupuncture, and the last tip here is, and I said this earlier, if you're not sleeping well, you're not healing well. It's the power of sleep. In a 2018 study titled tissue regeneration, impact of sleep on stem cell regenerative capacity. And the study stated, "The physiological changes during sleep are believed to promote a suitable microenvironment for stem cells to proliferate, migrate, and differentiate".

We also, as another little sidebar, get a hefty boost in glutathione during our sleep. This is where the magic of healing really happens. So making it a priority. To create a healthy sleep environment great sleep hygiene and our practices around sleep really making it a priority. Especially if you're wanting to heal ourselves. Healing ourselves mind and body. It's incredibly important We've done a bunch of incredible episodes on this subject matter. So definitely check the show notes. We're going to put a couple of episodes for you really master classes on this subject. And of course I wrote the international bestselling book, sleep smarter that has 21 clinically proven strategies to improve your sleep quality.

And also we've done many shows because this is a powerful show looking at what we have the capacity to do within our own bodies when it comes to stem cells. But now we have this booming field of regenerative medicine and stem cell therapies, and we've had the leading experts in the world. Here on the show, including Dr. Bob Hariri, truly a pioneer in the field of stem cell therapies. And so definitely check out that episode as well. Now, again, I hope that you got a lot of value out of this because this is putting the power back into our hands, finding some creative ways to add a couple of these foods in on a consistent basis can really make a big difference in healing our bodies.

I appreciate you so much for tuning into this episode today. We've got some masterclasses and world class guests coming your way very, very soon. So make sure to stay tuned, take care, have an amazing day, and I'll talk with you soon. And for more after the show, make sure to head over to themodelhealthshow.com. That's where you can find all of the show notes, you can find transcriptions, videos for each episode. And if you've got a comment, you can leave me a comment there as well.

SHAWN STEVENSON: And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome. And I appreciate that so much and take care. I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.