Steven Munatones: Even if you do absolutely no functional movement and you're just laying there it's almost like you're exercising from the inside out. Because every time a blood vessel expands and contracts, expands, and contracts your mind interprets that as come form of exercise and reacts accordingly.

So even if you're not doing a lifting movement or a workout movement there's still all kinds of benefits to the paths of that _____.

Podcast Intro: Do you want to know what it is?

Body, mind empowerment get stronger, faster, smarter quicker, friendlier, more helpful, more driving.

Everything the body needs.

Control your mind.

Siim Land: Welcome to the Body Mind Empowerment Podcast, I'm the host Siim Land and today we have two guests from KAATSU Global, Steven Munatones and John Doolittle. KAATSU is a form of blood flow moderation training that can mimic heavy weightlifting with lighter loads. It's the most researched and most advanced form of blood flow restriction training in the world. And is amazing.

It's especially useful for promoting recovery, treating certain injuries as well as just slowing down aging. If you want to get yourself the KAATSU bands then you can use the code SIIM for a 10 percent discount at KAATSUglobal.com. But on that, let's begin with the show.

Yeah, before we get onto the topics why don't you guys give us maybe a brief introduction about you guys as well and can I let the listener know which one is which with your voices.

Steven Munatones: John, why don't you go first, and then I'll go second.

John Doolittle: Okay. Hello everyone, my name's John Doolittle. I was introduced to KAATSU about four years ago while I was active duty in the US Navy. I spent a career working in the SEAL teams and I got hurt like a lot of guys do on a pretty regular basis. And my last rehab the guys used; the physical therapists used KAATSU on me.

And it was the same injury I had had when I was six years younger, it was a torn rotator cuff that they repaired. And I was

pretty blown away by how quickly my rehab was. It was basically, half the time from the same injury as when I was six years younger. So they definitely had my attention. The job I was working at was in US Special Operations command, there's a Human Performance Program and I was overseeing that program.

So a lot of the athletic trainers and physical therapists, I worked with them, and that's how I got introduced to KAATSU and basically, fell in love with the capability and the protocols. It was more on the rehab side for me.

Siim Land: Well, Steven.

Steven Munatones: And myself, I was introduced to KAATSU and the inventor of KAATSU, Dr. Sato in Tokyo in 2001. At the time, I was a volunteer coach with the USA National Swim Team and I had seen athletes in Japan use KAATSU and I didn't know what it was. And they introduced me to Dr. Sato and when Dr. Sato first used KAATSU on me, I asked him two simple questions.

I said, "Why isn't KAATSU known around the world and what can we do to introduce it to the world?" And he said, "Well, I don't travel outside of Japan and I don't speak English." And so, we decided then that we should form a partnership and start introducing KAATSU to the rest of the world.

But it took me 13 years to understand everything that Dr. Sato was doing. He invited me to Japan four times a year and I saw him utilize KAATSU in hospitals, with sumo wrestlers, with professional athletes, with golfers, with old people, with people who were comatose, people who were bedridden, people up the age of 104. And all this time he was explaining in Japanese and I was documenting everything in English.

And when that entire mentorship, that training program was over both he and I decided that we had enough information about KAATSU in order to properly introduce it to the rest of the world and we started in 2014. So that was my experience and introduction to KAATSU.

Siim Land: So it looks like both of you had like firsthand experience and then you just got more into it. What is KAATSU, in general, like how do you find it and such?

Steven Munatones: This is Steve. There are several steps to KAATSU. The first step is to put pneumatic bands on your arms or your legs and then when

you do that you actually engorge your limb and blood. So many people see KAATSU air bands on our arms and legs for the first time and they assume, incorrectly that KAATSU is a tourniquet. It's like a blood pressure cuff and it's keeping blood out of the limbs.

However, the opposite is true. We're trying to keep the blood in the arms and the legs, so that's the first stage. The second stage is when you do slight movement, this actually begins a catalyst of events in the body a natural progression of signals that are sent to the brain, hormones that are released, metabolites that are produced. And that's the second stage of KAATSU and this is wall while having the bands on your arms and legs.

And over the course of Dr. Sato's career, that was supported by cardiologists at the University of Tokyo Hospital, they were his collaborators. They taught me all the different protocols in order to – how tight do you put the bands, how loose do you put on the bands, how long do you put on the bands for people of all ages and who have different goals.

Some people who have goals are athletes and they want to get bigger, faster, stronger and some people are injured people and they just want to help their bone or their muscle or their ligament or their tendon improve or get better. And then, some people just want to maintain a nice level of wellness. And they might be people in their 60s, 70s, and 80s.

So the bands simply are you put them around your arms or legs, we put them to a certain pressure for a certain duration and then, this leads to blood being engorged in the limb all very safely. And we do certain movements and this leads to a cascade of biochemical reactions in the brain, which then release a variety of hormones and metabolites in the body. And the person will either improve or get better or get faster.

Siim Land: So that's like the biggest misconception that it's not cutting off the blood flow entirely and it's not creating this ____ or it's actually increasing blood circulation. And the KAATSU itself, it's supposed to be like blood flow moderation instead of blood flow restriction as I recall.

Steven Munatones: Absolutely correct. And this was very, very important for people, everyone, from physicians to someone who is a physical therapist to a coach. And again, what it looks like with your eye it absolutely looks like a tourniquet or a blood pressure cuff. And in

reality, it's exactly the opposite or it functions the opposite. And what we're trying to do is we keep the blood flow going into the arm or leg and we modify it or slightly reduce it for very, very short period of time, we're talking 20 or 30 seconds. And this leads to, for example, an increase in elasticity of your capillaries and veins. That alone leads to a variety of biochemical reactions in the body all which are very safe and healthy.

Siim Land: Yeah. Like the first time I tried the KAATSU bands it was in the ____ summit in Toronto and there I met John as well for the first time. So it definitely felt like a massive pump or a massive blood flow just because of using the bands and you didn't even have to use like any weighs with it. I got like this massive hypertropher response and muscle stimulus from just doing even like regular biceps curls without the weights and regular push-ups and so on.

That's like one of the best parts about it or unique aspects of it that you can mimic this heavy weightlifting without the actual heavy weights and you can still sufficiently stimulate the muscles toward muscle hypertrophy and growth.

Steven Munatones: Yes, absolutely true. And that's, for a healthy person that's very, very convenient, and very surprising. However, for someone who is wounded or is injured, someone who has just come out of surgery, they might be in a wheelchair or they may have a cast on their limb, enabling the body to maintain its muscular mass is very, very important post-surgery or post injury. And this is something that is gradually being understood by the physical therapy and medical markets.

Siim Land: So John, like maybe can you walk us through of your injury and now did you use KAATSU to recover from it?

John Doolittle: Sure Siim, no problem. Well my injury when I first got introduced to it was full thickness tear super ____ rotator cuff. So completely shredded it, they had to go in and re-anchor that rotator cuff. And what first kind of surprised me was where the bands ride on my arm the injury is not distal to the bands, right. And I was kind of surprised why are the physical therapists using this on me if the injury is not distal of the bands. It's not below the bands.

And what I learned pretty quickly is that experience that you felt at the show, Siim, when you had that lactic acid response when you were doing now weights but you were doing functional movements, that's a systemic response. So the body will react to KAATSU as if it's intense exercise. Well when you do intense

exercise there's a whole metabolic reaction in the body. Your metabolites, your hormones, everything that's associated with intense exercise happens when you're using KAATSU.

And that helps speed up the healing, definitely. And what we've seen in the military and in the Department of Veterans Affairs, which military guys that are getting hurt, anybody that has a neuromuscular pathway that's intact even if the muscle is very, very weak if there's any neuromuscular pathway intact, if they can move that limb at all, KAATSU can be very helpful to them.

Because you can take those muscle fibers that are not, that are just barely working and maybe don't have enough strength to let's say extend your leg. Let's say you have some sort of injury and you just can't do a full leg extension, when you have KAATSU on and let's say you're in the water, you can really emphasize those movements.

Siim Land: Yeah, like the bands themselves apply like this additional pressure as well and as I understand, the KAATSU translates into like additional pressure. So you're putting this pressure onto your limbs and moderating the blood flow and the body just responds by, like you said, with this exacerbated response of promoting additional blood flow and releasing all these metabolites and hormones that actually promote the healing process.

John Doolittle: Exactly.

Siim Land: What about people who are into more sports performance and such they aren't injured and for them is the KAATSU and blood flow moderation training also beneficial?

John Doolittle: I was just going to explain that any sport where you can, any movement where you take existing functional movements and you put the limb in an engorged blood state like that, all the capillary, Siim, the blood is still moving, right. These are not tourniquets so everything's engorged but like we talked about, when we're looking at your capillary refill when we press on the limb that's distal of the bands, we still see that there's good blood flow. It doesn't stay white when we press on the limb.

So anytime your limb is in that state and we're doing any kind of functional movement, we get the response of intense exercise. So now take any sport, let's use swimming as an example that's kind of what I did growing up. If we put the bands on and we untether

someone in the untether mode ‘cause the bands are waterproof and we put them in the pool and we have them swim just a few laps at moderate speed that feels like a very, very intense experience. So there's a lot of good that comes out of that. First of all, you're getting all the biomarkers that come with intense exercise, right. You're getting your IGF1, your HGH, all those types of markers from exercise go u.

But there's another piece that's happening too the athlete is working in a high lactate threshold state, right. So anytime you can have the athlete working in a situation where they're working at a high lactic acid threshold that is going to be good for them when they're doing competition or doing an event.

If I put the bands and I jump in the pool and I do, let's say, eight 25s at moderate pace, that's not very much, that's a very short, little swim workout. By the eighth 25, it feels like I'm in a very intense 200 freestyle race. I get that lactic acid response through my whole body. That's a really good thing for athletes to get that experience and get that feeling.

Siim Land: Afterwards you take off the cuffs then the regular exercise is going to be easier just because the body is you upped to like a harder workout.

Steven Munatones: Yep. And something else to keep in mind, because you're not pushing heavy weight like let's say you're using the KAATSU leg bands for air squats. Pretty quickly those air squats will feel like you're pushing pretty significant weight. But in reality, you're not you're just pushing your body weight.

Because you're just doing bodyweight movements, you're not actually tearing down muscle fibers and getting the resulting inflammation that comes with tearing down muscle fibers. The traditional strength and conditioning model is 80 percent of one rep max and go to failure, right. Well, when you go to failure at that type of weight, you're actually injuring muscle tissue. And the body needs time to recover from that and there's definitely an inflammation response.

When you use KAATSU by definition you're doing light intensity or light load movement. So you're not tearing down muscle fibers and then as a result you don't have that inflammation response. Which means people that use KAATSU associated with athletics or sports they can definitely do it more often.

Siim Land: I think you can achieve the same response by doing KAATSU at the intensities of like 20 to 30 percent so you can use like only 20 to 30 percent of your one rep maximum and still the body's going to respond as if you're using like 70 to 80 percent. And yeah, like very beneficial in terms of the actual response and you're not like overloading your joints with heavy weights all the time so you can train more frequent as well.

Steven Munatones: Exactly. And if you're an athlete or a competitor that's no longer 18, 19, 20 years old let's say you're in 30s or 40s or even older, let's say you're a baby boomer in your 50s or 60s and you're still involved in sports. This is a way to save the body. You still get the metabolic response of intense exercise but you're saving that stress and strain on the skeletal system by not pushing heavy weights. Yeah, I think that's a key aspect with what's going on with KAATSU.

Siim Land: Yeah, like the aging population especially would benefit from this because they are losing muscle as they're getting older and they don't get the stimulus for maintaining that muscle. For instance, like virtually or like the vast majority of older people they don't really workout with resistance training at all. And it's kind of intimidating for them because they haven't ever done it in their life.

But with things like these simple, you know these KAATSU bands they can easily do it and they can also reap the benefits a lot. They can like stave off the age-related muscle loss and just improve their general metabolic health and stave off all different degenerative diseases.

Steven Munatones: Absolutely. And I think that is our real core market. We do a lot with many, dozens of different athletes, I'm sorry, a lot of athletes and dozens in dozens of Olympic sports from marathon running to 100-meter dash to as John mentioned swimming. But also, wrestling, boxing, skiing, water polo, volleyball, rugby, etcetera. And working with athletes is great with us because we help them improve their performance.

In addition, we help them get a higher rate of efficient recover after a performance or after a very hard work out. But really, our core market are what we target as aging baby boomers, people over the age of 50 who for various reasons don't want to go to the gym, don't want to work out or can't for some reason. And we allow them with the KAATSU bands to literally work out doing anything that they do in the course of their life.

They could be typing e-mails, they could be watching their favorite TV program, they could be washing dishes, folding clothes, gardening, walking their dog. All of these activities that they would normally do in the course of their life if they slap on, fi they put on the band that now becomes metabolically biochemically a very, very good vigorous workout.

Siim Land: Yes, it's like you're saving time as well in a sense that you can fold your clothes and do the laundry or do gardening or something else while still getting like a good exercise and stimulating the muscles in a beneficial way.

Steven Munatones: Yes, absolutely.

Siim Land: That's really good. I've also seen some research showing that BFR and KAATSU they can promote stem cell proliferation. Is that true?

Steven Munatones: Yes. We have not publicly promoted this yet. We know through our 10 years of research at the University of Tokyo Hospital all the different metabolites and the significant hormonal response that does occur. But we would like other people in the United States and Europe and elsewhere to be conducting this research.

So we support researchers who are pushing this and if we look around the world, the people who are really pushing the envelope, who are really at the forefront of KAATSU and its benefits, for example, in the stem cell area remain in Asia. So Chinese have been looking at this very actively since about 2012. The Brazilians and there are a handful of Americans who are now delving into his area.

Siim Land: And as I understand it's like pretty popular in Japan and Asian countries because Dr. Sato is also from Tokyo.

Steven Munatones: Yes. And I think the Asian view of remaining healthy is certainly different than it is in the United States where we tend to focus, we meaning Americans, tend to focus more on the pharmaceutical solutions to issues. And the Asian populations have a very long history of Chinese medicine and using different herbs, acupuncture and what Americans would define as alternative methods. But these alternative methods have been used for hundreds if not thousands of years.

And so, when we introduce something like KAATSU that is very natural, there is nothing in KAATSU that is – there's no cutting

open of the body. There's no consumption of pharmaceuticals. It all start the process that your body normally does. And this kind of mindset, this kind of approach is very, very acceptable to Japanese, Chinese, Korean and other assign physicians and physical therapists and consumers. So that's really why the popularity in the Asian countries has increased.

But here in the United States and in Europe the more information that we can share directly with consumers the more and more acceptance and awareness of KAATSU is beginning.

Siim Land: Yeah, and I think like the results also speak for themselves. So Dr. Sato is like in his 70s, if I'm not mistaken, and he's like really jacked and he has like massive biceps. So he's definitely looking healthy and doesn't show down any, he doesn't show any signs of aging compared to like the average person who is in their 70s in the western world and they tend to be like really sick, they are on some meds, they are dysfunctional, they can't really take care of themselves. And I think that's why the biggest or the most important things for any person can do for them is to just maintain this functional fitness especially in their later life.

Steven Munatones: Oh, absolutely. And the thing that really impressed me about Dr. Sato, his wife, all of his patients is how sharp they are mentally and how mobile, how strong, how happy they are. You know I'm going to be 58, a lot of people my age are we meet and we often complain my back hurts, my knees hurt, my shoulder hurts, etcetera. And all of the people that I met in Japan and China who have been doing this for a while, there is zero of those conversations.

They view KAATSU as part of their lifestyle and this is a very specific goal of Dr. Sato, in order to maintain to be healthy until the day we die. It's obviously, a very ambitious goal but when I see Dr. Sato and his colleagues in their late 60s, 70s, and 80s these people are very healthy. They have no problem walking up and down several flights of stairs. T

hey have no problems picking up something heavy. They have no problems stretching, putting their arms above their shoulders, walking, and all the things that we take for granted when we are younger. And so, they really, really what we say walk the walk and talk the talk. They are great examples of the benefits of KAATSU over your lifetime.

Siim Land: Yeah, yeah, and I, myself, also use them for just the regular functionality and even like aesthetics and you can use it for bodybuilding especially as well because one of the aspects of muscle growth is like the blood flow and maintaining that blood flow. So if you are able to sustain eh blood flow for longer then it's also going to end up with a greater muscly hypertrophy in the final results. So that's also like, you know, it's not for old people only its' also for anyone who just wants to optimize their physique.

Steven Munatones: Yes. And that, I'm glad you mentioned, that is very, very important and as all of societies, it doesn't matter where you are, South America, Iceland, Singapore, or Estonia. We are all becoming because of our jobs more tied to our desks. We sit a lot more than we used to.

We can do everything on our computer or on our smartphone and we can telecommunicate, we have the internet, we have access to all the information. So we are as a human species, we are sitting a lot more. There's less need for us to be active. Around the world, any age. Young kids nowadays they're not outside as much as previous generations and previous generations were riding their bikes and running around and playing games and now, a lot of that activity has been replaced by playing on your smartphone or doing things in front of a laptop.

And so, everybody needs to stimulate the body in order to A) maintain a very healthy muscle mass that enables you to do functional movement and B) to have very elastic capillaries and veins. And over the course of one's life if you can do just those two things, you're going to lead a very active, healthy productive life.

Siim Land: Yeah, and with the help of these kinds of let's say technology and I would categorize the KAATSU bands as technology because it's not the same as like regular blood flow or restriction bands. This actually incorporates the appliance of this pressure as well. And you can use those things anywhere, at your home even or in an elevator or even on the airplane.

And just put the bands and you can still get a good workout without having to go to your one rep max on the x-squat or the bench-press. You can do like regular pushups and even like the pushup _____ without the weights and still get a good exercise.

Steven Munatones: Yes, you're absolutely correct. Anywhere, anytime, by anyone.

Siim Land: John, what kind of exercises do you use with the KAATSU bands?

John Doolittle: So after spending the career in the navy my body's kind of broken down so another benefit of this type of exercise is I don't go to the gym anymore. I don't push big weights at a gym. I have some elastic bands, I have TRX, and I have the KAATSU cycle 2.0. which is our small, new devices. And it just runs in a cycle mode. That device is 30 seconds and five seconds off.

And each time it releases the pressure it will come up a little higher in pressure. So what I'll do is I'll put those bands on, I'll put the TRX that's hanging from the tree in the back yard and I'll just do some all kinds of movements with TRX bands or any kind of exercise movement that in the past I might have used a lot of weight with. And now I use, basically, no weight or a very light resistance.

And Siim, gone are the days of you know that feeling when you go to the gym and you do chest and you go hard and then your chest is basically done for the next two or three days, right?

Siim Land: Yeah.

John Doolittle: Or if you do something where you have a chronic injury or some pain or some kind of orthopedic issue that you've been dealing with for years, I mean that's me. So every time I go to the gym and push weight I'm basically down for a matter of days. So with KAATSU I don't do any of that I just use the cycle mode, that pressure on, pressure off, a little more pressure on, pressure off. And it all happens automatically in the background while I do just very, very simple exercise movements.

So that's how I exercise, to answer your question but in addition to that, and I don't have them running right now because it makes a little background noise, but just right before we started this call, I was doing e-mails with my arms going through those cycle loads. So what I've found is there's a lot of, like Steven was taking about earlier, there's just a lot of day to day activity that I never thought of as exercise before. But now when I'm wearing KAATSU they're absolutely exercise and they feel like it. You try folding laundry with the arm bands on and after r10 minutes of that you're done.

Yeah, so my workouts have definitely changed as a result.

Siim Land: Yeah, like the, I do love the unique aspect of the KAATSU bands, the KAATSU cycles, which is this appliance of pressure and it can build up eventually. So that's one of the biggest differences between regular ___ restriction bands as well. And it does like

make easier for – you can just, you know, even sit there doing nothing and put the KAATSU cycle on and it's going to start modifying your blood flow and it really feels effective.

John Doolittle: Yeah, that passive expansion and relaxation of all your vascular tissue that's distal of the bands, there's all kinds of benefits that come with that. We have plenty of athletes that use that as a warmup before a hard work session. You can think of an elite swimmer being in the ready room right before an event and having the bands on that cycle mode, which does a lot of things. If you just think of all the tissue distal of the bands being slightly engorged and stretched open for 30 seconds and then released. And then stretched open for 30 seconds and released.

Think of like – for your listeners here – think of like a cold, brand-new balloon, right. When you try to blow up that balloon and its brand new, it's difficult. If you take that balloon and you stretch five or 10 times and then try to blow up that balloon it easily blows up, right. You got that elasticity component. There's a very similar thing going on with your vascular system

And the more you can stretch, open, and relax that vascular system all the way down to the capillary, the more you can do that the more vascular elasticity you're going to have. It's almost like a physical stretching that's taking place at the capillary level. And right after you do that, obviously, your blood flow is going to be opened up significantly, so right before an event.

Siim Land: So it's also like the consistence in the frequencies that are important to prevent the stagnation of the blood vessels so to say.

John Doolittle: Right, right, right. I mean even if you absolutely no functional movement and you're just laying there it's almost like you're exercising from the inside out because every time a blood vessel is expands and contracts, expands and contracts your mind interprets that as some form of exercise and reacts accordingly. So even if you're not doing a lifting movement or a workout movement there's still all kinds of benefits of a passive aspect of it.

Siim Land: Yeah, what about running or something sprinting or something that's something you should want to avoid.

John Doolittle: I wouldn't say avoid it, I would just say it's going to be difficult so you can lower the duration and shorten the length. Let's just say you're doing running right, and you're a sprinter and you want to increase speed. When you have the bands on and you're going

through all your full range of motion, you can go through full range of motion at half speed and during the cycle phase you can go to a threshold pressure or we'll be calling your optimal pressure and go ahead and untether the band and go at full speed. But what you'll find is if normally you can do 10 100s, 100 sprints for your workout, when you have the band on you might only be doing five 25 sprints before you're completely done.

I mean there's a couple of good things happening there, right – hold on, we got some background noise, sorry about that. There's a couple of good things happening there. When you start exercising like that, you're getting the same outcome as if you were doing the 10-100 sprint by only doing a couple 25 sprint. But you're saving that strain on your body as well.

And there's a lot of athletes that utilize the USRPT I think it's ultra-short race pace training and when you do short race paced training and you have KAATSU on you can get the same if not maybe even better outcomes but save all that excess strain on your body.

Siim Land: And when it comes to like the heavier weights then you should want to kind of stick to the lower loads instead of doing like heavy weights.

John Doolittle: Yeah, one of the things we run into in special operations is guys, especially the younger elite athletes, the younger tactical athletes is what we come them, they like to push weights. They don't want to stop pushing weight. So we let those guys still go heavy if they want but we significantly change their human performance profile or their workout profile.

So instead of having an hour and a half of pushing heavy, heavy weight they might have a functional mobility warmup, then they might have a section where for 15 minutes they're pushing weight, but then they put the KAATSU bands on they're not pushing heavy weight but their body is reacting as if they are. So they still get that brute strength push heavy weight and the younger guys, they want that. I understand that I recognize that these guys feel a need to be able to do that. And if you're a professional football player you need to be able to push heavy weight. But you can really pull back from how much and how often you do that and help protect your body and get a little more longevity out of that athlete.

Siim Land: Yeah, that's a good point. So say that people think that always more is better and heavier is better, etcetera, but sometimes it's

actually better to kind of have the more of a moderate approach and consistency so to say.

John Doolittle: Yeah, I would totally agree. So many athletes now days are over training and that's more is better mentality. Yeah.

Siim Land: Steven, can you maybe give some more examples of the medical research done on KAATSU bands and how can it benefit people beyond just ____ growth?

Steven Munatones: Before I do that I want to go back on the running portion. One of the very, very successful approaches to running especially for triathletes or marathon runners, anybody who's running more let's say than a 100 or 200-meters is to use a very low pressure on the ands. And then, run for a certain either time, duration, it can be one or two minutes or a certain distance, let's say 500 meters or one kilometer at a low pressure.

If you add that to your workout and then continue on, take of the bands, we see a tremendous increase not only in ability for the blood to be going very efficiently to their working muscles but also for lactate to be removed from their muscles more quickly. And this actually has application in the medical field and that is what we found at the University of Tokyo Hospital

So it didn't matter if it was an athlete who was coming in or an older person who had just had a heart attack. We put bands on these people, the KAATSU bands very shortly after their surgery and then, allowed them to just simply walk. KAATSU walking is our most beneficial and easiest thing to do whether that's done in the hospital or physical therapy clinic or at your home.

And what happens when we walk and this is all the research that was done by the Dr. Nakajima, Dr. Merita, and Dr. Sato is that when you help increase the elasticity of your capillaries and veins there leads to all kinds of things. For example, we documented very clearly an increase in IGF-1, insulin growth factor. We documented nitric oxide increases, endothelial cell increases and depending on where you are, you know at what stage of your life, young, middle-age, or old all of these things that we found in our research are very, very helpful and that research is ongoing.

Siim Land: That’s pretty awesome and a lot of it just has to do with both the physical transformation so to say that increase in muscle mass and decrease in fat mass but as well, like the blood aspect is also very critical as we've mentioned already quite frequently.

Steven Munatones: Yes. And I think one other thing is very, very important. Because KAATSU with low pressures is literally easy to do a lot of people they start physical therapy or they start some kind of recovery program and once they're discharged from the hospital or they don't go to the physical therapist this becomes difficult for them to repeat. With KAATSU we found that because it's so easy to do and because you don't need high pressures, you know quite often we go on YouTube or online and we see these very healthy young men with huge muscle really working out hard.

Well if you're 25-years old with huge biceps and huge triceps and a big chest and you're a healthy young man this doesn't have anything to do with an 85-year old man who hasn't visited a gym in 30 years. And so, what we try to teach people is you can do this very easily at your home or at the physical therapy clinic, etcetera, and then they can repeat it over and over again throughout their life every day, every week, every month.

And this cumulative effect of doing KAATSU, increasing elasticity of your capillaries and veins, secreted all of the things from ITF-1 to nitric oxide to endothelial cells these are things that are very, very helpful over the course of our lifetime.

Siim Land: Yeah. Yeah, like definitely the convenience is a huge factor so to say. You can put the person on any exercise routine or even a diet program but it's not going to work if they aren't able to stick to it. So the adherence is the biggest factor for any kind of transformation and any kind of a long-term success.

Steven Munatones: Yes, absolutely.

Siim Land: So how would like people, you know do they need any specific special training or something in order to start using the bands?

Steven Munatones: We've worked actually with Dr. Sato since 2001 in order to make KAATSU as safe and easy to use as possible. There still needs to be some education, of course, but really, our newest products the KAATSU Cycle 2.0 we really worked hard to make it very easy for people to learn. If anybody has any questions they can always call or e-mail us and we do this all day long. They can have very specific questions and we can answer or very general questions and we can answer.

But really, we have all of the information that they need to know either on our website or on our blog. We produce a monthly digital

magazine with lots of examples of people of all ages. So they can purchase the equipment, they can read the instructions, and follow our what we call the ____ specialist program online. And if they still have questions, they're always free to call or e-mail us.

Siim Land: And there's also like video, together videos about the exercises and all those things so it's pretty easy to grasp and quick to learn as well.

Steven Munatones: We hope so.

Siim Land: What are some of the difference between the different bands? So there are like quite a few of them.

Steven Munatones: Yes. You know the good thing is that when we started KAATSU, I think it was so good that we have now a lot of competitors, and that is good. The more competitors we have, actually we see this as a point of pride because we know we have done a good thing. We know that as one company we could not service everybody around the world so we view competition as good.

But the number of years that we've been researching this under very strict medical supervision leads us to believe that we really know what we're talking about. Our real goal is to enable people of any age, anywhere in the world to do KAATSU for their benefit. And because of this our number one goal was safety, bar none. We wanted everything associated with KAATSU to be safe.

And we did that under the supervision of cardiologists, working with people who are cardiac rehab patients. So in other words, people who had heart attacks, people who had a heart bypass surgery, people who had a stroke or clots, etcetera. We did KAATSU on them first and when we did KAATSU on them and learned how to keep everybody save without any issues then we knew that we could help healthy people and others safe.

So I think the biggest difference between KAATSU and everybody else is our entire company focus on safety. And we started with people who had heart attacks and we did our research with people who are very, very physically vulnerable. And so, we know if we could help those kind of people, again, following the protocols that were established by Dr. Sato and Dr. Nagajima, and Dr. Merita at the University of Tokyo Hospital that safety is absolutely number one.

And that means that the length of our bands, the width of our bands, the amount of pressure, the duration of our pressure, the very, very importance of having pneumatic bands. Some people complain to us or have stated well, your bands are so expensive. Well they're expensive because they're very, very expensive to make. And we wanted to make something that someone could do anywhere, anytime safely, and therefore, we focused on that. So everything we've done in the company starts with safety and then the next stage, obviously, we want to see benefits. We want to se positive effects.

And because we've worked so long with so many people all the way up to the age of 104, Olympic athletes, professional athletes, world champions, as well as people who are quadriplegic or don't have legs or don't have arms or are comatose. We have learned how to work with all of these people safely. And I think that distinguishes KAATSU bands with all the other bands out there.

Siim Land: Yeah. Like definitely I can tell from my own personal experience that the KAATSU cycles themselves, you know the stand alone KAATSU cycles they make it worth it so to say so that you can get like the minimal effective response by just using the KAATSU cycles with the additional pressure that you don't really get from like the regular bands that don't have the automation.

Steven Munatones: Yes. Yes, that's is absolutely true.

Siim Land: John, you have kids so do you ever or have you used the KAATSU bands on your children and what do you think is like the best or the minimal or the earliest time that you can start using them?

John Doolittle: Well, that's a great question. When I first met Dr. Sato, we were on a family trip in Tokyo and my daughter who was nine at the time, is that right, yeah, she's 12 now so she was nine. And she had just broke her arm three days before we met Dr. Sato. So she had a cast on from her armpit all the way down to her wrist.

And of course, Dr. Sato as soon as he saw Meg, that's my daughter, as soon as he saw Meg walk in with this big fiberglass pink case he said, "Ah, we must do KAATSU." And I was kind of taken aback a little bit ‘cause you know, Meg was only nine-years old. But we talked through this, it's so safe like Steven was saying, I mean this stuff really got its legs with cardiac rehab. I mean there's no danger to using it on younger kids.

Now, of course, that was under Dr. Sato's mentorship and leadership. And what he showed me was that when Meg put the band on and she went through the automated cycle he had her do an isometric hold in her arm each time that it came up in the cycle. So during that cycle he had set up was 20 seconds, five seconds off. So for 20 seconds Meg would do an isometric hold, relax, isometric hold, relax. And he told us do that for the next six weeks while she has the cast on and her arm will not shrink.

So he was right, the atrophy aspect, we did get the typical broken limb, six weeks later she came out of that cast and of course, she was stiff but there was no atrophy. As a matter of fact, up high on her arm that was in the cast actually was a little bit bigger than her other arm. Which sort of blew me away but if you think about it, she was doing all this focus isometric holds on her bad arm so we was actually in some ways working out her broken arm more than her other arm.

That was Meg at nine years old. Ryan is 15, he's a basketball player, and he has no problem with me talking about this he did a podcast talking about it. He has JIA, Juvenile Idiopathic Arthritis. There's a lot of inflammation and pain that comes with that disease and Ryan was also shown KAATSU by Dr. Sato and has been doing it every since.

Because what Ryan will tell you is when he's doing a KAATSU cycle that pain response that comes from the inflammation associated with that type of arthritis, the pain goes down significantly. And over time, the inflammation goes down as well. But the big thing for him is pain ‘cause you know basketball that's a high demand lower extremity sport. There's a lot of demand on the lower limbs.

And where he has the most problems with JIA is his knees and his ankles. So he'll spend most of his KAATSU time is done on his legs in the cycle mode both when he's shooting in the backyard or when he's doing homework and just elevates his feet and is typing away on his laptop.

And then our oldest son – yeah, go ahead, Siim.

Siim Land: No, I was going to say that's like really fortunate that he has access to this kind of thing and it's like very beneficial for these especially like casts or something related to immobility.

John Doolittle: Yeah, of all three kids we have that's been the one I've enjoyed watching the most just because of the good outcomes he's having from that arthritis.

And then Shaun, he was a swimmer for a while. He's the oldest of our three and he used KAATSU as a warmup and a warm down during swimming competitions. So the warming down aspect of KAATSU fascinates me. When you work your muscles really hard and your tissue gets full of lactate and toxins that are associated with heavy work KAATSU is a great way to help flush that lactate out of the tissue.

Because each time the bands go through that automated pressure on, pressure off when the band's inflated your cardiac output, the stroke volume of your heart has to increase to keep the blood moving past the bands. And then the bands go through this rapid complete depressurization. Well as soon as that happens everything distal of the bands that was just stretched wide open you know have your heart pumping that much harder and you get this almost flushing sensation of lactate out of the muscle tissue.

So there's a lot of athletes that use KAATSU to recover immediately after heavy work. And that's what Shaun used it for a lot in this sport of swimming. So it's a family affair. My wife uses it too. We'll be working in the kitchen and we'll have leg bands on and then we'll untether and we'll take the dogs for a walk and there's a leg workout for the day.

Siim Land: Yeah, that's pretty awesome and yeah, like the recovery aspect is also, that's the way I use it. Like I still do regular weight lifting and regular calisthenics but I use the bands for like rest days as well as maybe finishing off some muscle groups for like recovery and such. It's really multifaceted in the way that you can use it and I think that's really amazing invention so to say.

So it's worthwhile to also mention like how Dr. Sato discover the use of these things? Maybe Steven can elaborate on the story.

Steven Munatones: Yeah. It was quite interesting, Dr. Sato always had an interest in actually first, power lifting and then later bodybuilding. And so, he was always interested in weight training in order to support his power lifting career. And one day he was actually in a Buddhist temple and he was kneeling down so he was sitting on his ankles and knees and he felt his calf because it felt like it was tightening up. But then when he felt his calf, they calf muscle was actually

just as pumped as it is when he would be doing regular heel raises or squats.

He thought that the blood keeping out of the limb, out of his leg because the way they sit when they sit on their ankles that was leading to muscle hypertrophy. However, when he did more and more research and thought about it more deeply, he realized that he was actually keeping the blood in the lower leg.

And so, he literally started to test by putting bicycle tires and other elastic bands around his arms, his legs, his head, his torso, his chest. He would put two bands on, three bands on, and over the course of literally seven years documenting every possible thing he realize that KAATSU based on sitting down on his ankles was a form of keeping blood in the limbs.

And once he figure out that then it was a matter of time, another anywhere from another decade, another 10 years when he was trying to figure out what is the optimal way to build muscle? What is the optimal way to gain aerobic endurance? What is the optimal way to help let's say a broken bone heal itself? And that continued for another 10 to 12 years.

And then, he was able to get his colleagues at the University of Tokyo Hospital to do formal research on that. And one of his colleagues was an exercise physiologist, Dr. Eshe who wrote the first peer review published paper, I think that was in 1996 based on other work that they had done around 1993. So Dr. Sato invented KAATSU in a Buddhist temple or at least the inspiration came to him in the 1960s. He experimented on himself until the mid-1970s.

And then he continued experimenting once he figured out that blood ___ engorgement was the goal in the '70s and '80s. And then in the '90s he began formal research at the University of Tokyo Hospital. And then starting in 2004 he started to work with the cardiologists with the heart attack survivors and heart bypass surgery patients for 10 years. And during that 10-year period, he was training me and others how to do KAATSU properly and that is the basis of all the protocols that we currently use now with KAATSU.

Siim Land: Yeah, so it's almost like Newton's apple story that he kind of got this idea out of nowhere and kind of went with it, it's very good. A fortunate inspiration. And yeah, I would imagine that the world is greatly indebted to this discovery because I see like a massive

value for especially like the aged population as well any like rehab and any injury treatments. So yeah, it's an amazing thing.
So we're going to start wrapping up the podcast as well so before I ask my last question where can people learn more about your guys and you work?

Steven Munatones: Yes, people can go to KAATSU, the KAATSU website that's KAT-S-U-global.com. So K-A-A-T-S-U dash global dot com. You can go there. You can also go to KAATSUblog.com that's K-A-A-T-S-U blog dot com. Or you can just write us, e-mail us and we'll send you out some free magazines and that will show you all kinds of examples and testimonials of people from around the world who have used KAATSU.

Siim Land: Awesome. That's good. And I'm going to put all the links in the show notes and if I'm not mistaken, yeah, then they can use my affiliate link with a code where they can get 10 percent off, so that's good.

My last question is what's this one piece of advice or habit you wish you had adopted sooner?

Steven Munatones: Oh, I wish I would have done, been able to use and know KAATSU when I was an athlete myself. I mean that is, you know, I would have used it as a warmup. I would have used it in the course of my training and I would have used it as a recovery. And unfortunately, I was in my late 30s when I was introduced to Dr. Sato, I wish I would have been introduced to him in my teenage years.

Siim Land: What about you, John?

John Doolittle: I wish I would have had access to this when I was doing all the traveling that I was doing in the SEAL teams. I mean you do all this training when you do that kind of work and none of the training or very little of the training is at home station. So you're almost always on the go and if you're not training then you're away on deployment.

And what we found is it's very cumbersome to bring a lot of workout equipment on a deployment or on a training trip with all the bumper plates and the rowers and all the equipment that comes with that. As a matter of fact, a SEAL platoon will have two full pallets full, aircraft pallets full of exercise equipment.

And knowing what I know now, I mean honestly, what fits in half of my little knapsack, my backpack is all I need to sustain and even have physical improvement. So I wish I had this early on in my career in the Navy I definitely could have used it. But I'm glad to have it now.

Siim Land: Yeah, it's so easy to travel with like literally you can just even, you know at the gym or at the hotels they're very notorious for having like bad exercise equipment and very light loads. So with the KAATSU bands it doesn't matter because you can just use the light loads and still get the good workouts. So it's amazing traveling tool.

John Doolittle: Exactly. Exactly.

Siim Land: Well thanks, guys, for coming to the podcast and yeah, looking forward to more future research spreading the use of this amazing domestic violence.

Steven Munatones: Thank you very much.

John Doolittle: Great and thank you.

Siim Land: All right, that's it for this episode. As a reminder I want to tell you if you want to get the KAATSU bands then use the code Siim for a 10 percent discount. The bands are quite amazing and it's definitely something that I use basically every day for both muscle hypertrophy as well as just increasing recovery and blood flow so yeah, I'm a huge fan of these things.

That's it for this episode, my name is Siim, stay tuned for the next one. Stay empowered.

[End of Audio]