

- S1 00:00 Hi, this is Tim Lightfoot, the director of the Huffines Institute for Sports Medicine and Human Performance, and we're really excited to tell you about an event coming up. We hope that you're close enough or you're near one of our satellite sites to see it, and that's the Huffines Discussion 2013. And this is the one where we bring in guest speakers from all over the world that are going to tell us their big ideas about the role and the future of sports medicine and human performance.
- S1 00:24 So join us November 15th, 2013 from 1:00 to 4:00 PM, here on site at Texas A & M at the Annenberg Presidential Conference Center. You can also go on our website at HuffinesInstitute.org, go over to the News and pull down to where it says Huffines Discussion, and you can find a list of all of our satellite sites around the country that will be simulcasting the event at the same time.
- S1 00:47 So join us November 15th, 2013 for the extraordinary Huffines Discussion Three.  
[music]
- S1 01:31 Hello and welcome to the weekly podcast from the Huffines Institute for sports medicine and human performance. I'm your host, Tim Lightfoot. We're so glad that you took the time to download us and that you're taking the time to listen. Every week we bring you an interesting individual in the world of sports medicine and human performance. And today is no exception. We are quite pleased and honored to have Dr. John Chong with us. Welcome to the podcast John.
- S2 01:55 Hey, hi everybody.
- S1 01:58 [laughter] I'm going to take just a minute and tell everybody why we've got you on. And we're so excited, like I've said, to have Dr. Chong. And he is the current medical director of the Musicians' Clinics of Canada. He was a founding member and is now the president of the Performing Arts Medicine Association. He is the medical director and teacher performance awareness at the Glenn Gould School and the Royal Conservatory of Music in Toronto. He is also the medical consultant for the National Youth Orchestra of Canada. And so, you can tell from what we've talked about that he's a physician that specializes in musicians' illnesses and injuries.
- S1 02:36 And so, we've got Dr. Chong today continuing our athletes and the arts initiative where we're talking about how sports medicine relates to the world of performing arts. And so, we were glad to have you on John. Thanks for taking some time out of your busy schedule to be with us today.
- S2 02:51 With extreme pleasure and honor.
- S1 02:53 No, thank you. Let's just get started-- How did you get involved with this? You have a fascinating story as to your background and why you were involved in treating musicians.
- S2 03:03 Well, to make a long story short, I am a musician - was a musician trained at a conservatory. So-called prodigy, lifestyle, practicing six hours a day. I got injured when I was 14 and made all the mistakes in the world, which I can speak about with authority and then I went into composition, electronic music. And then for some strange irony, of course the family said, You have to go to medical school, which is fairly stereotypical Asian, Canadian stuff. So of course, obedient kid as I am not, I went to medical school. I somehow got in - that's the other issue - and

then floundered my way through life, which I still am, and stumbled upon integrating all the areas of interest: which would be music first, electrical engineering and of course medicine. So, post-graduate training was interesting, because I really had no idea what the hell I was doing or wanted to do, so I sort of fumbled around in various areas of post-grad, and dreamt about this, and dreamt about that, and suddenly I thought about Occupational Medicine - disease of the workers - since we ran a laundry, and I sort of had a reaction to as there gases and all kinds of silly things like that. Long stories.

- S2 04:26 I said, Wow, this is really interesting, so I got into the diseases of occupations, and then said, Hey, this is really weird. It's right in front of my nose. Why don't I get involved in my own home community performing arts? That's how I joined TAMA, right from the day of Monolith's Alice Brantfer-Benner and Dick Letterman, who are just wonderful mentors and brought the whole organization along for the last three years, four years, and here we are.
- S2 04:53 So, that's sort of the history in a nutshell, various [inaudible] they're stay in tangent for all the way.
- S1 05:02 What's fascinating about that is, I think, so many medical practitioners in particular if they had-- I think if they had the experiences that you had - you grew up in the field so you know the ins and the outs of the performing arts - and so you can really bring that experience to your medical practice.
- S2 05:18 Absolutely, I've done it all, so to speak.
- S1 05:21 Yes, you know, you mentioned something there in telling us about your background that you talked about as fairly stereotypical in musicians and that's a lot of practice a day. I'm not sure if people realize that even the young musicians are practicing just quite extraordinary a links of time throughout the day.
- S2 05:39 Yes, well that's a set of culture for foreign arts educational, which of course in time, I were confronting fairly systematically. So, if you grew up - you loved to play, you love betel - in short hand, your teacher's all enthusiastic, by the way, you get rewarded for it by competitions and get patted on the head and everybody else loves you. Well, there's no reason to stop, so the body said, I think you better stop by giving pain signals and bumps and things like that. So usually, I learn the hard way and of course, all my patients learn the hard way when the body says no and, geez, what happens. So I guess that's our charge and our job. Both in [pam?], as well as athletes and the arts. What does it mean when the body gives you signals and says, Hey, hold the phone there guys.
- S1 06:29 Right.
- S2 06:30 Something's gone - there's a malfunction here.
- S1 06:32 Right.
- S2 06:33 You better pay attention. So that's the sort of springboard in which we want to get to what's going wrong, what is this all about? And of course, prevention is the name of the game, prevention and education.
- S1 06:43 Now I think so many of the lay public out there in hearing this would think, you know, playing an instrument really is not that stressful. So how can it injure somebody if they're playing for six, and seven, and eight hours a day?
- S2 06:54 Yes. Well, that's the key thing. So what is actually going on?
- S1 06:57 Yes.
- S2 06:59 Six or seven hours a day-- six, seven, pretty well every day. So my students in the Glenn Gould, we started out-- we're dealing with post-grads this year. And I said, How much time do you spend practicing? Of course, it has to be at least six

hours every day, so you're looking at a normal 40-50 hour practice a week. I said, "Well, what do you do in that time?" Well, I hang out in the studio and I practice. I said, "Well, that's interesting. Well, what do you practice?" Well, what I'm working on. And I said, "Well, how do you practice that?" Over and over and over and do this, and my teacher helps me out, and I get a lesson, and then I have all these notes in my head that this is no good and this is terrible and it goes on and on, and I said, "Well, how do you know it's really bad and you should work on that? How do you know that it's good enough?" You don't have a score like in sports. So if you play golf, of course you practice and take it to the course. She thought, no. You made the cut or not, or whether you're holding the trophy and you're now earning ten million bucks. But in the arts, it's totally different, you behold into your own stories about yourself. A lot of time to spend by yourself and telling yourself, and echoing what you might or might not be real about what's going on. And of course it's never good enough.

S1 08:27

Right.

S2 08:29

With any endeavor, sports or arts, and--

S1 08:31

Yes, because there's musicians in particular, you tend to focus on the things you got wrong.

S2 08:35

That's for sure. [chuckles] And that's what you're told as well. And I think you got it right. At a 10,000 note [eulogy?], you made three bloopers. By the way, don't ever show up again unless you got it right next week, or else [laughter]. That's a tradition especially in classical musical training. That's the culture we live in. And that's why the injury rates are so high.

S1 09:00

Is there a bias against musicians who report injuries?

S2 09:04

It depends what sector you're in. Let's start with sports and athletes. I watch TSN all the time. I watch hockey, I watch football and it's, who's on the injury list, and whose getting this surgery and oh my god he's out with a concussion. And there's a little a kind of badge of honor. And in return he played a great game, he made four touchdowns even though he can't walk straight. It's completely the opposite, it's the don't ask, don't tell cloister of secrecy around injuries. Why? Well, I think it's the culture within the performing artist and they don't want anyone to know. There's a definite occupational or educational Darwinism; showing your weakness, you might perceive that you may not do well or people might think you're weird or something and of course you might actually lose your job.

S2 10:00

But if you are a freelance position, which most musicians are, they don't have full-time appointments. If you're a performer, you are actually vulnerable to rumor and innuendo that because you're injured, you're probably not that good, and something's wrong with you, and of course you may not be able to perform up to your high standards because of some reason. So, there's many, many factors within the educational and occupational system which sort of plays against the glory of being hurt and wearing the badge of pain.

S1 10:38

Yes, and do those issues prevent musicians from coming forward, or coming to your clinic to get help?

S2 10:45

Absolutely, yes. I started this way back in the 80s, and you know, just used to deal with injured workers with repetitive strain injuries and various poisoning - lead - and lung disease and all the normal stuff. But I was shocked a bit when I started seeing consultation requests of musicians. These guys were having issues - medical problems - over the last ten or so years. And I'm going, Well, wait a second here. What do you mean you've had this problem for ten years and you haven't seen anybody? The story unfolds. First of all, we didn't have anybody to see who gets it. So that sort of felt good, but that didn't really help because the

problem was very, very deep-set and chronic. And often the problems are not just pain and soreness for ten years, it's a movement disorder. So let me show you the cases that I saw were extremely, extremely serious. And these people have lost their careers; they're depressed. They weren't functioning because their work depended on their ability to perform, whether teaching or performing. So they're really in dire straits. There was no compensation. There's no rehab. There's no nothing. They're just hiding in obscurity.

S1 12:03

It's interesting that you brought up a point there, that a subsequent to the physical injury becomes the mental problems that come with it as well.

S2 12:12

Well it's both. It's all part of the same process [inaudible] neurobiologically. We know, even epidemiologically, that the recent study by Brouwer Ackerman out of Sydney, Australia had looked now at presenting muscular skeletal pain as well as anxiety and depression all in one little packet and seeing the connection and correlation. The more severe the anxiety and depression, of course the more severe muscular skeletal pain. So this just published a month ago, and I just think it's quite landmarkish. So now, we're actually seeing it in [inaudible] as well as from a theoretical, patho-physiological point of views. It's all coming together now.

S1 12:56

Well the picture is becoming clearer and public, isn't it?

S2 12:59

Yes I think so. I think in the old days we sort of moaned about depression and addiction. And then another guy died, Jim Morrison died, and Amy Winehouse died, and Corey Monteith died, et cetera, et cetera. And some survive, rarely, like Eric Clapton, et cetera. But most of the time it's tragedy and a sort of a celebrity kind of feel, Oh my god. Too bad, but it's the addict and the nature of the beast and your personality, or your genetics, even. But I think that's so antiquated and not really evidence-based. You've got to look at what's going on in education in the workplace, and then you can see that, Hey, this is really no different than other medical problems in any other industry. But there are some good things about this industry and obviously some issues that are huge risk factors. There's illness and injury.

S1 13:56

Well and these injuries can occur and they're not uncommon. I know offline, before we started here, our chat a little bit about your daily workload as a physician in your clinic and you've got a packed schedule every day.

S3 14:08

Yes, the boss at the clinic just said, By the way, you're full until the end of the year and we're booking 2014. So I'm going, Wait a second here. Hello? We just passed Canadian Thanksgiving here and we don't have an open slot. So, what about the emergencies? So we just had that debate. Well, I've kept a few spots there, but i.e. don't you dare disappear and go play hockey or go to the golf course [laughter]. But I think I have a busy schedule, so I'm like, Oh boy. So it's a nice business problem to have. I probably should rub in. We do have a health care system that's publicly funded in Canada, which I think is a huge advantage to the performing artists, as well as athletes. There's no barrier to access. And I know in the states, and in other jurisdictions, it's very difficult to even get an opinion, or some help regardless of any specialization or interest in the field.

S1 15:10

That's what I was going to ask about. I know you specialize in musicians, are there other clinics like yours that you know of in Canada or around the States, or even worldwide that specialize in musicians' medical issues?

S2 15:23

I think the circumstances are lucky because today in healthcare systems, so I do have flexibility within reason within the credential health plan to have a specialist pick and choose what and who I want to see. That is not true in an insurance-driven system. Even if you had universal insurance access, you'd still be under those controls. That's number one, and then of course the secondary issue is who are you going to see and what background do they have. This is a

huge problem when it comes to care for performing artists. I think what Pam is trying to tackle in terms of education, and other issues such as access and funding we can't control.

S2 16:11

With regards of that challenge, there's been an incredible dedication from say, Richard Letterman and Alice Brent from Brenner over the years. They have seen musicians often through. No payment or on the side, slipped in between all their normal day-to-day work as a neurologist, physical medicine specialist. And others have tried very, very much so. For example, in dance medicine and also done that as an orthopedic surgeon. So we do it because we love to do it. In my case, it's kind of lucky. I love to do it and also call it as a living, support staff, which I think is fairly unique. Other jurisdictions are academically based, like in Australia or Europe where they have special circumstances where the arts like football and hockey in North America were corrupted. So they take special interest in their art, so therefore it's less of a challenge from the healthcare provider point of view to make a case to say I want to spend time and look at these things and research these things. But again, [Eckert Oltenmew?] in Germany and others have been able-- because of their local circumstances, been able to really accelerate their growth clinically as well as research-wise.

S1 17:42

Given your circumstances, it allows you to be a really good observer to probably one of the most common injuries in musicians. So that begs a natural question: are there common injuries you see in musicians, and are there any particular musicians that you see more often than others?

S2 18:01

Yes. Well, it's a two stage question.

S1 18:04

Sure.

S3 18:04

What are the common things? I have an acronym which is called MADNESS. It's muscle fatigue for M, A for anxiety, D for depression, NE for nerve entrapment and SS for stress syndrome - spells MADNESS. And it's not one or the other, so that's another unique issue. As an occupational physician, I can look at all aspects related to the whole person as opposed to just looking at nerve entrapments, bone issues or the psychiatric aspects. Then I have a very integrated approach across all the various items. I guess the challenge has been how handle all these M-A-D-N-E-S-S relayed and the current science is quite remarkable in leading to a mechanism and as well, observable populations with the same issues. So, it is very much related to neurobiologically what stress is perceived by the individual.

S2 19:10

Obvious performance anxiety, obvious if you're not up to snuff, you get somewhat down on yourself, depressed. The pain is about your autonomic nervous system switching on and saying "oh oh, I'm in danger, I'm pissed off, I'm angry, or I'm going to freeze here because someone is going to whack me over the head [laughter]". And that's a fairly standard chronic stress response with cortisol firing from parts of your brain to stimulate the adrenals and up flux cortisol, which activates muscle tension, pain sensors in your muscles, as well as other nasty things around the body like shorten you [tolaners?] and wreck your immune system.

S1 19:58

Shorten your life.

S3 19:59

Minor things like that. Eventually something goes haywire in your stress regulation system. I can remember that's very simply that you know in two favorite songs what goes up must come down [inaudible] we'll got to go round [inaudible] frontiers that's normal that's described by [inaudible] way back in the good old days of homeostasis bases but if you remember the old up up and away that's what happens when the system loses the ability to down regulate so basically you have a stress system of the run away train

S1 20:33 Yes, it just keeps going on and on.

S3 20:35 On and on and going and literally got the mind of it's own. I was a lucky dude is about how your trained and factors that wire [inaudible] hardwired into your system and then you run into big trouble heart disease cancer and all the other horrible diseases that are now clearly related to short [inaudible] stress so [inaudible] all fairly recent stuff 2009 novel price and all of the glory years of brain imaging in the last ten, 15 years, things that we've been able to study clinically and on a population basis. It all fits now, but it starts with being at the bedside and taking a good history.

S1 21:20 Yes. If you have young musicians, and we have young folks that listen to this and some of them play instruments. Are there general kinds of things they can do to help prevent them from dropping into this whole Madness Syndrome?

S3 21:34 Yes, well, remembering the acronym Madness. If you start losing it, consciousness of what you are trying to do, say as a performing artist. We usually do it for the right reasons, I.E. we love it and we're actually good at it. Then, we are subject to other influences and we might start doing it and not listening to our bodies about possibly not very healthy reasons, very stressful reasons , or being somewhere and being competitive, as opposed to just loving to do it. Doing it for adoration - narcissism - rather than just loving to do it, or actually believing you can make a living doing it. [laughter]

S3 22:19 So, it's important to actually look at reality here. It's nice that people, they'll argue in my view. That's a given. It should be that way, not because of what you do. It's who you are, and that's the way biology should be. Now, in terms of work, it's a bit spine-chilling, and everybody in sports knows not everybody can be on the PGA tour. Not everybody can win 10 million bucks in one tournament, like the FedEx Cup, and not everybody can win the Stanley Cup, let alone make the NHL.

S3 22:50 So, that's been worked out, so basically, the odds of being a talented Johnny playing piano, being adored by beautiful nannies -which is me - and winning a few competitions, the chances of actually making it big-time, to be a Lang Lang or a Tiger Woods is about one in half a million.

S1 23:08 Right.

S3 23:09 And it's getting worst because of the economic circumstance.

S1 23:13 And more people.

S3 23:14 And more people.

S3 23:16 By illusion and the mere fact that multimedia, etcetera. It goes on and on, but it's not unlike sports, I mean you do it because you love it. You play golf, you play hockey, you play football because you love to play. You always have a dream, there's nothing wrong with that. But actually believe that, and actually hurt yourself in pursuit of that, well and we know a lot from sport management, sports psychology and better take it easy on those concussions. You take it easy on the knees because eventually, it ain't going to happen.

S1 23:50 Right. You don't need them to get around the rest of your life.

S3 23:52 I think [laughter]. In the brain, so we know all that. All concussions stuff will lead to, "Wow." But it's not any really any different. I guess what the distinguishing factor is, okay I'm not playing piano, is not football. But if you actually look at some of the brand new machine data and the stress that the individual is under, well the physical trauma is actually equal, psychological trauma. Looks like, what? How is that possible? So that research has been done, so you can reject somebody quite severely and abusively of the so-called targeted humiliating

criticism.

- S1 24:34 I had that phrase on my question, so I was - I'm glad you bring that up.
- S3 24:37 Adverse is actually getting stuck and ahead of going through off tackle, and brain scanner exactly the same, area light up in the brain which are not good place just to light up.
- S1 24:48 How do you define targeted humiliating criticism?
- S3 24:51 This is actually the work of UCLA. Research is Slavich and group. And what they did what appears of psychological experiment with the end-point of being stuck in the brain scanner. So it's fairly [artificial?], just get kicked out the video game like musical chair, we give you 20 bucks and you fill out all your questionnaires and then you get stuck in the brain scanner and ironically everybody knows it's fake and lights up your brain into your cingulate cortex, sort of worry center, the hub of the mind and of course your inflow which is where the body maps with, so equal physical pain. It's like, What?, these guys know that it is completely fake yet there is something about rejection. Just lights it up. In real life they pursue that thread and say, "Well, what is actually the risk?" So if you actually get rejected by someone else, I.E dumb or flank an audition, you are done. The risk to your health is about 22 times the same risk public health-wise as in tobacco. How is that possible?, well they've got all the data there to look at that.
- S3 26:08 But if you just reject somebody or you lose somebody [?] from health that's about ten times risk of getting unwell. So, it's like what? How is that like possible?. Well, that's what the data show. Now to elucidate some of the mechanisms because of the stress response now. So now, they actually measure all the inflammatory by-products of the cortisol, you know, flooding the body. So now, we can sort of clinically work it out in real time. And so, "I get it now." So this is really now good for you whether you get smacked on the head or you get smacked in the head.
- S1 26:47 Yes. With criticism.
- S3 26:49 Yes. That's the most potent target humiliating citizen but of course you can expect this pretty endemic. And you know, performing arts education whether in dance or music.
- S1 27:02 We were talking to a profesor recently who was professor of music school. And he said, "Yes, not uncommon for, especially during auditions for conductor to walk down their line and look at someone and say, Nope, nope, nope, maybe, nope, nope, yes kind of thing."
- S3 27:17 So ironically, if you're in boot camp and the sergeant major walked down, you're hoping to say, No, you're out. You can join the band [laughter]. But on the other hand, it's the complete opposite. If you're a performing artist, a dancer, or musician, your whole life depends on being picked. If you're not, you're the unlucky nine out of ten, you're done. You're off to, as I would say, teach Suzuki piano in Sault Saint Marie or Smooth Rock Falls.
- S1 27:51 Whatever comes next.
- S3 27:53 If you're lucky, you can cobble out a living. Otherwise, you'll be performing around the world on recording contracts and living in five-star hotels and be the talk of the town. Unfortunately, that's the way it is and that's not going to change in terms of the business, competitive, that's showbiz.
- S1 28:12 Yes, well John thank you, I'm getting the sign here that we are running out of time. I really want to thank you for your time today and fascinating background. I only got to about four of my questions, which was great. We always give our guests an opportunity to give our listening audience a take home message. What

would be your take home message for today?

S3 28:36

Well, I think it's about performance awareness, and learning about listening to your body. There is some amazing techniques we now have and we obviously use them in sports, basically biofeedback. So we are going to listen to your muscles, using [?] biofeedback if you have access to something, you can definitely look at your heart rate variability.

S1 28:57

We can do that, yes.

S3 29:00

[?] very cheap programs, and even on your iPhone, you can really learn about your own response and how your body is functioning and when you might be getting into trouble, rather than waiting til you can't function, or you're so crippled that you're done. So, we have the technology now, and it's just a matter of putting it in place from an educational point of view. So, I sort of challenge the listeners saying What are the ways that I can be more in tune with myself as I'm practicing, if I'm competing? Not just to win, but to prevent any injury or illness, a long-term but also very reachable goal, I think, Tama has.

S1 29:41

We just want to keep them healthy, huh?

S3 29:44

Yes, exactly. So, it's no different than sports, you know what I mean? Once you're on the injury line, you're done. I mean, you're not contributing to the team, or yourself.

S1 29:54

Yeah, yeah. Well, great take-home message. Thanks so much for being with us today, John.

S3 29:57

Okay, Tim. Great.

S1 29:59

And for the listeners, thank you so much for being with us today. Regular listeners will know that this is the time in the podcast when we have our Podcast Question of The Week, and here with our Question of The Week is our producer, Kelly.

S4 30:12

What is the meaning of the acronym, MADNESS?

S1 30:15

Great question. Be the first person to email us the correct answer to the question at [huffinepodcast@hlkn.tamu.edu](mailto:huffinepodcast@hlkn.tamu.edu) and you'll win one of those nifty podcast t-shirts. We have our third editions and they look really great so send us that email. Let us know. In the meantime, we hope that you all take the time to come back and join us next week for another great guest like we had this week. And until next week, we hope you stay active and healthy.

S2 30:49

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