

## Healthy Minds – PTSD (Post Traumatic Stress Disorder)

From WLIW21 Public Television. Used with permission. All rights reserved. Third-party use restricted.wliw.org.

Video Link: <http://www.brainline.org/content/multimedia.php?id=956>

**Announcer:** This week on Healthy Minds, post traumatic stress disorder can develop after surviving or witnessing a life threatening event, including military combat. Guests share their stories and experts talk about diagnosis and the latest in treatment. That's this week on Healthy Minds. Healthy Minds on WLIW-21 is made possible in part by NARSAD. NARSAD is dedicated to supporting innovative scientific research to find the causes, better treatments and cures for severe mental illness. And by ValueOptions®, working with health plans, employers and government programs. ValueOptions® manages behavioral health care and substance abuse services for people throughout New York, New Jersey and Connecticut; by the New York Academy of Medicine, working to enhance the health of people living in cities worldwide through research, education, efficacy and prevention; by the van Ameringen Foundation. Since 1950 the Foundation has supported prevention, education and direct care programs that seek to promote positive change in the mental health field. And by the New York State Office of Mental Health, promoting the mental health of all New Yorkers.

**Dr. Jeffrey Borenstein:** Post-traumatic stress disorder or PTSD has been with us for thousands of years and has a history as old as war itself. The condition was referred to as Soldier's Heart during the Civil War, shell shock during World War I and combat fatigue during World War II. PTSD doesn't confine itself strictly to war. Other traumatic events such as natural disasters, violent assaults, auto accidents and terrorists attacks can also cause post-traumatic stress disorder. PTSD affects over 5 million Americans. Not every traumatized person gets PTSD but for those who do, the important thing to remember is with help, there's hope. PTSD may develop after exposure to a terrifying ordeal or event in which there was a potential for serious physical harm or death. A person with PTSD has three main types of symptoms. One, re-experiencing the traumatic event, for example, nightmares and flashbacks. And for that person it really feels like they're back in that terrible situation again. Two, avoidance and emotional numbing, feeling detached from others and a loss of interest and activities that used to be enjoyable. And three, increase arousal in the form of feeling hyper vigilant or on guard as well as irritability and outburst of anger. In addition, the person often experiences insomnia. Let's learn more about the symptoms and treatment of PTSD with Dr. Ganesan Krishnamoorthy from the Northport VA Medical Center.

**Dr. Jeffrey Borenstein:** What is post-traumatic stress disorder?

**Dr. Ganesan Krishnamoorthy:** In reality it is something that a person who has been through a traumatic experience actually has for the rest of his life, so to speak. Trauma is defined as a life-threatening situation. A situation that actually in some way threatens a person's life or the person witnessed something that was life threatening. The person who has been traumatized usually is very isolated, feels really unsafe and doesn't trust too many people. And in the clinical syndrome the person really experiences the traumatic experiences in certain ways.

**Dr. Jeffrey Borenstein:** Is one of them the flashbacks that we hear about?

**Dr. Ganesan Krishnamoorthy:** Absolutely. Flashbacks is one of the commonest things that people talk about but one of the unusual things. Nightmares and repeated recollection of the event, you know, these are the two things that are much more common than flashbacks.

**Dr. Jeffrey Borenstein:** People who experience this obviously it's very uncomfortable when they relive these events. What are we able to do to help them? What do you do to help them with this?

**Dr. Ganesan Krishnamoorthy:** What happens in the clinical syndrome is that in order to avoid reliving this experience is a person becomes extremely isolated, emotionally numb and isolated from people and they become hyper aroused from time to time and they become irritable, angry, depressed and rageful. The first and foremost thing is to actually help the person to heal from the experience and the healing consists of validating the experience, helping the person to actually talk about it in a safe setting and to accept what has happened to this person.

**Dr. Jeffrey Borenstein:** When you say validating the experience, what do you mean by that?

**Dr. Ganesan Krishnamoorthy:** In regular life, usually what we do in common experiences is that if you've been through a bad experience, you tell people the following day, "Hey, look what happened to me yesterday, I got beat up outside a bar." That's not necessarily a trauma that maybe something the person may be able to talk about comfortably. But somebody had been beaten up outside a bar and (unint.) the person may not be able to talk about it. So in the validation, since the person has been holding onto this experience for a long time and has doubts about oneself and probably feels somewhat guilty about it, you sit down and let the person talk about it and encourage the person to talk about it at the same time, understand how difficult it may have been to this person to go through this experience.

**Dr. Jeffrey Borenstein:** Tell us about what the treatment is, what do you do at the onset and then as treatment continues?

**Dr. Ganesan Krishnamoorthy:** Well, as you know, people come to treatment after an experience like that at various times. You know, somebody who comes right after a trauma, they may be in a state of shock. And that in clinical terms is called an acute stress reaction. So up to a month, the person may go through a state of shock and that is disbelief. There is a confusion, detachment, feeling very unreal about what happened, questioning oneself about "why did this happen to me?" kind of a thing. There the treatment consists of actually helping the person to ventilate a lot and to be supportive and provide some rest and respite and in some cases, medication.

**Dr. Jeffrey Borenstein:** Before we get to the medication, for the person actually talking about the traumatic event is helpful to them.

**Dr. Ganesan Krishnamoorthy:** Absolutely because the purpose of trauma or the traumatic memory is this. If you have a bad experience, you need to find out how you're going to survive it and avoid being exposed to it in the future. A very simple example is if a child sticks a finger in the fire knows not to do it again and that experience is something that is going to be very deep into the person's mind. It's very unlikely somebody will experience a Tsunami twice in a row. But Tsunami victims know what it looks like. If the water recedes from the shoreline, don't go near the water would be the lesson. And they probably have a recording of that in their brain and that will be indelible for the rest of their lives. And if they ever see water receding from any place that they are in the future, even in a natural occurrence of tides, low tides, they may start to relive that experience. The original intent of that memory was to help the person to avoid being caught in another Tsunami. Same with the volcano, same with the earthquakes and same human created tragedies, it's like rape for example. A person who has been great, knows where not to be on a given day or a given night and where you want to get caught. So that memory which is deep in the brain helps the person to avoid a future catastrophe.

**Dr. Jeffrey Borenstein:** But sometimes other interactions or incidents can bring out the memory. So a loud noise may bring back a difficult memory for the person.

**Dr. Ganesan Krishnamoorthy:** Correct. So though this may be a beneficial thing to have this memory seared in the brain, in certain situations, like combat, if for a year or more a person has recorded million bits of information that can trigger memory, the person instead of being benefiting from that memory,

now is suffering from it, that's what PTSD is. Something that would be physiological and helpful for the person, now it becomes a sickness that actually interferes with a person's normal life. In treatment, you get the person who has pictures on the brain to talk about it, write about it so that it can become words and once it become words, the words can be processed. Pictures cannot be processed that easily. So from the older part of the brain where the recording is, you bring it to the newer part of the brain which is the speech writing kind of a brain and get the person to process the information a little bit more intelligently.

**Dr. Jeffrey Borenstein:** Given what you were describing about the isolation and difficulties sometimes trusting people, what's it like for family members whose relative has post traumatic stress disorder?

**Dr. Ganesan Krishnamoorthy:** It again depends. My experience is this, anybody who is not traumatized will not be able to understand the full magnitude of how this affects a person's life. It's a very pervasive thing. The affliction affects every aspect of a person's life. So in the beginning as a person returns, say a combat soldier returns from combat front to civilian life, the persons will just gather around and give accolades and say you are a hero, let's just give you a party, a lot of times the returning soldier's response is not let's just go and join the party, he'll just say why the hell do you have to do this for me. And actually, I know people who saw the party banners in front of the house and just went in through the back door in order to avoid the crowds. So the isolation starts immediately. And what the families would say is why do you have to do this. We had just went through all this trouble to give you this party, why can't you just relax and enjoy it?

**Dr. Jeffrey Borenstein:** The part is to educate the families so they understand what their loved one is going through.

**Dr. Ganesan Krishnamoorthy:** Yes. I think the education of that is getting a lot of Iraq veterans' families either the agencies like VA are educating them or they're just going about their own way to find out more information about it from the Internet and stuff, so it's a very important part. The other thing is to give some space. So the expectation of the family is that he's going to be over this in a matter of days to weeks. A lot of returning veterans say this to me because the military's intent in educating combatants right in the field about PTSD, what is being taught and what is being learned are two different things. What many of them are learning is that this will go away in about six months. So they come back and wait for six months for this syndrome to be over and once it is not over, they just say, okay, what's wrong with me now, so they seek treatment. So educating the family, educating the combatant, the soldier or the Marine is a very important part of initiating treatment. The third part of PTSD left out in the description is actually called hyper arousal. In general terms it means being at a high state of alertness all the time. If you look at people who are in combat, they have to be in a very alert state in order to recognize danger before it happens. And when that gets into a civilian life, a person tends to be extremely alert, focused to a degree irritable and if pushed too hard, getting enraged. So that is a third cluster of symptoms that happens in PTSD. If you put the person in a military context in a battlefield, it makes sense because a person has to be in that state.

**Dr. Jeffrey Borenstein:** In other words they're all good coping mechanisms to avoid injury in battle.

**Dr. Ganesan Krishnamoorthy:** Correct. The way that the anger spreads in the brain and goes from anger to rage is a very common phenomenon. A lot of veterans who had been in combat will recognize once a rage sets in, they just become totally blind to the situation and many of them have hurt other people, especially in early stages of PTSD.

**Dr. Jeffrey Borenstein:** What would you say to somebody's who's watching now who might be experiencing some of these symptoms and is afraid to go and get treatment, what would say to them to get them to come and get help?

**Dr. Ganesan Krishnamoorthy:** Yes. I think that's one of the primary reasons again to talk today. This is not a disease. Post-traumatic stress disorder is a normal consequence of participating in something that is extraordinarily difficult. Combat is probably the most difficult thing there is for a young person to participate in and the consequence is not just going to go away. And seeking treatment for the condition will improve the quality of the person's life because upon returning from the military, the person's life's trajectory changes because a person has changed and the longer the person waits to seek treatment, the more different they are going to be from the way they would have been if they had not been exposed to trauma. So my suggestion to people is please do seek treatment because treatment is effective. It will make your life as close to a normal life as possible for yourself and the people around you, your neighbors and the community at large.

**Dr. Jeffrey Borenstein:** We just heard about the symptoms and current treatment for PTSD. I also had the opportunity to visit Dr. Bruce McEwen (ph.) at his lab in Rockefeller University where we spoke about cutting edge research on stress and PTSD. This basic research will ultimately lead to new and more effective treatments.

**Dr. Bruce McEwan:** There appears that people who have PTSD have an overactive sympathetic nervous system, the system that makes the heart beat faster, makes the blood pressure go up, which is important in the fight or flight response. They have an overactive production of adrenaline and an over reactivity to things that happen to them. At the same time, there are some relatively new evidence that they are not producing enough of the other stress hormone cortisol. They are not really deficient but they just produce not quite enough to make things go along normally. And there is some evidence that people who are likely to develop PTSD, who have lower than normal cortisol, if you give them supplemental cortisol, it actually prevents the development of the disorder or at least the symptoms of the disorder.

**Dr. Jeffrey Borenstein:** So in some people, making up for the short fall.

**Dr. Bruce McEwan:** Exactly, exactly. And in fact it reinforces the idea that cortisol actually has some very beneficial affects on the brain and the body as well as doing the bad stuff that we tend to recognize too much cortisol doing. And one of them may be as protecting against PTSD.

**Dr. Jeffrey Borenstein:** And there's also some anatomical issues that we see.

**Dr. Bruce McEwan:** Yes. Part of the brain, called the hippocampus, which is very important in memory of events in our daily lives and spatial ability and so forth is often found to be smaller in people with PTSD. There is a bit of controversy because there is some evidence that says that it's smaller because of the trauma, because of the stress that's associated with the traumatic. But there is other evidence that suggests that people who are most vulnerable to PTSD may actually have a smaller hippocampus to begin with and it probably is a matter of both, that is having a bit of a smaller hippocampus and then perhaps the hippocampus becoming smaller when the disease appears and actually then goes on for a long time as it unfortunately does in many people.

**Dr. Jeffrey Borenstein:** These findings lead to potential improvements and treatment of PTSD and help for people who have experienced it.

**Dr. Bruce McEwan:** Exactly. I mean, of course one of the problems is if somebody has a traumatic event, such as a rape or an accident, some violence and so on would, given them a dose of cortisol, perhaps help reduce the symptoms. It certainly did in these studies on people who are undergoing major cardiovascular surgery who were in a clinical situation. Perhaps giving people cortisol might help. I mean, after 9-11 if people had been popping prednisone tablets, who knows if there might have been less

PTSD. We'll never know that. But on the other side, I think that some of the things that we're finding out about what makes the hippocampus smaller leads us in depression and in PTSD, leads us to believe that it may not be brain damage as such but a process that can be treated and possibly reversed with the right kind of drugs. There's some evidence that...

**Dr. Jeffrey Borenstein:** So these basic scientific findings will ultimately lead to new treatment to help people?

**Dr. Bruce McEwan:** Absolutely, yes. So it's very likely that maybe we can find drugs, pharmaceutical agents that will actually help to reverse some of these changes in the volume of the hippocampus and improve some aspects of the thinking and behavioral of people with PTSD.

**Dr. Jeffrey Borenstein:** When a soldier comes home with physical wounds, it's there for everyone to see and people respond with support and treatment. But PTSD has been called the silent combat wound. You can't see it but the person with PTSD certainly shields its affects.

**John Adams:** I was drafted May 1, 1967 and I wound up in the first Cav A Company (ph.) 2nd to 12th in Vietnam. I was 22 when I was drafted. It was a shock. We went into Benoit (ph.) Air Force Base and getting off the plane, the heat hit us first and then motor rounds came in. But I wasn't in country three minutes and it started. This the CIB, Combat Infantry Badge, Purple Heart, I had gotten hurt on, this was January 7th and Bronze Star was for actions during the (unint.) offensive and my unit was almost annihilated. And I just got chills. I haven't talked about it in a long time. We were sent in from the Clank Tree Area (ph.) into the Quay (ph.) Area in the rain with no backpacks and we walked into the NVACP. And we had 60% casualties the first day and we escaped the area in the middle of the night. And the Tet went on for a few days after that and I was wounded twice. Since I came home and I got out of the service in 1969, it's Memorial Day weekend, it's is the worst time of the year. I mean, the other ones affect you also because things happened on different holidays and New Years but Memorial Day is the time when you reflect back to the ones that you were with and they're still 22 and 21 years old. And it's time to remember and it's time to mourn. And a lot of it is, I guess survivor guilt, you know, why am I still here and they're not. In the beginning I would have my dreams and actions and 4th of July, you know, a lot of explosions and I usually don't like people sitting behind me, put myself against the wall but I didn't think much of it. And it got progressively worse over time. It was getting to a point where it was a daily thing and a nightly thing. And I'd dream and I'd still be running and screaming and yelling and my wife would wake me up in the middle of the night, cold sweats. I still feel like I'm still in the service sometimes. The experience of memories at night time carry on during the day and you do have flashbacks. And sometimes they get worse and I've had times when I had to pull my car off the road because of flashbacks and memories and you're not here anymore, you're back there. And that can be a dangerous situation. You never think there's something wrong with you until things get worst. And like I said I live with it every day. I have the same dreams. I say good night to the same guy every night. I shot a guy. He was over a half a mile away and he keeps waving to me every night. So that's something that sticks with you forever. You know when you're in a combat situation, you do whatever you have to do. I think a big help for me too was being married. My wife and I got married first March 24th of '67 and I got drafted April 1st and we had the big church wedding and the reception on September 16th and I left for Vietnam on September 28th. And then while there I had an R&R and I went to Hawaii. I met her at the airport. So we finally had a honeymoon. But it was an experience because when I went back to Valley North I was coming home after that. My wife stuck by me and now it's 38 years later and I'm still dreaming and she's still with me. There's always been a stigma over PTSD or any mental health issues. You're afraid to say anything because it might hinder your advancement or promotions and the same thing's happening today because some of the Iraqi vets that I meet and we talk and they're afraid to go for counseling because it might affect their ability to gain rank. We have to support our troops and they're going to go through these experiences. And something that come to mind, you know, freedom isn't free. You know, we're going to always fight for it and we're always going to have this type of

problem. PTSD is something that's always been there, first World War, second World War, Korea, Vietnam and now in Iraq and Afghanistan and it's going to continue and these people have to be offered the help that they need.

**Dr. Jeffrey Borenstein:** One of the purposes of today's show is to honor the sacrifice and commitment of our servicemen and women and their families. To those of you who have given so much to our nation, the most important thing I can say to you is that with help, there's hope. If you're experiencing symptoms of PTSD or depression, don't suffer in silence, seek the help you deserve. Until next time, I'm Dr. Jeff Borenstein (ph.).

**Dr. Jeffrey Borenstein:** For more information, please visit our website at [WLIW.org/HealthyMinds](http://WLIW.org/HealthyMinds).

**Announcer:** Next time on Healthy Minds, broadcast journalist Jane Pauley shares her personal struggle with bi-polar disorder. That's next time on Healthy Minds.