

[00:00:00]

**John Moe:** A note to our listeners: this episode contains mentions of suicide.

I bet you remember the early months of COVID. I sure do. I remember the fear. The fear of a deadly disease going around. I remember being afraid that I would get it and then die. That people I loved would die. And who knows when or if a vaccine would ever arrive. I remember being in the house a lot, of course. One of my kids was in college, and he had to come home, move back into his bedroom. My other two were home all day instead of going to their school. Everyone was attending school online, whatever that meant.

And I remember thinking about what this all meant to mental health, to everybody's mental health. As I do. I remember thinking that this was all messing us up and that even when—or if—we got back to going maskless in grocery stores, this was going to be with us. For a while. I was right about that.

I'll keep this PG. COVID F'd our S up. It's *Depresh Mode*. I'm John Moe. I'm glad you're here.

**Transition:** Spirited acoustic guitar.

**John Moe:** “I'm glad you're here” has some multiple meanings, as I've explained on the show before. And there's a bonus meaning this week. I'm glad you're here listening. I'm glad you can listen. And I'm glad you're not one of the more than 7,000,000 people worldwide who have died from COVID-19. But if you are still alive, you're still dealing with what happened, maybe in the form of the effects of long COVID. Maybe you have COVID right now. It's not gone; it's on the rise actually. Or maybe you're dealing with it in terms of all that has gone into living through it and living with the knowledge that it all happened.

I want to be clear here about my point of view on something. The distancing, the precautions, the masking, all of it was necessary. These were extraordinary times. They called for extraordinary measures. And there are mental health effects for people, for society, that outlived the masks that you used to wear everywhere. We've been through something horrifying. Trauma is real. It's important to look at what those effects may have been—for yourself, for people around you, and the research is starting to come in about that.

We wanted to get a broad view on what COVID—as a virus, as an infection—might have done to us, and also how the safety measures affected us. Especially how this has all affected people who already had a mental health issue happening. Like maybe you. So, we called up Dr. Royce Lee. He's a psychiatrist and professor of psychiatry at the University of Chicago. He pays particular attention to trauma and its effects.

**Transition:** Spirited acoustic guitar.

**John Moe:** Dr. Royce Lee, welcome to *Depresh Mode*.

**Royce Lee:** Glad to be here.

**John Moe:** The further we get from the dawn of COVID in 2020, the more data and wisdom we gather. And it makes me more hopeful that we'll start to understand more and more what has happened to us and what continues to happen to us.

What have you found that COVID itself—as an infection, as a disease—did to people who already had mental health conditions?

**Royce Lee:** Yeah, good question. You know, here what I think of is the anecdotal observation of people that I saw. Which is, of course, limited in scope and not generalizable to everybody else. But I'll share anyway. It seemed like at the beginning of the lockdown, I was surprised at how well my largely lonely group of clients was doing. Surprisingly well—maybe in a sense because they were used to it, right? They were not super socially connected, and they were no more susceptible to—let's say—conspiracy theories than other groups.

And I thought that was really interesting. Like, I didn't see any correlation between, you know, picking up odd ideas and having a psychiatric diagnosis. But as things went on for years, I think that things are different though. And you know, here I think now we can draw on both history and science. I think it was a *Lancet* article that showed—put some numbers on it, essentially showing that if you had a major psychiatric disorder before the pandemic, about two to three years later, the overall course of your disorder was significantly harder than the control group.

[00:05:00]

And I can't remember if this was a historical control group, but I don't think it was. I think it was for those who had COVID, right? So, I think it wasn't just like the living through the pandemic, it's actually getting the virus. You know, of course, it mattered if you got it before the vaccine was available or not and other factors. While I can't say that that paper is the truth, it does correspond to all sorts of other data points, including how we understand the brain works and its sensitivity to inflammation.

I'll give you a short answer. Most psychiatric disorders seem to—people who have them seem to experience some worsening, probably some of it due directly to inflammation related to the virus, maybe some epigenetic things, some of it related to the stress. And we already knew this—who had very severe psychiatric disorders—this was clear. And when the pandemic was at its worst stage, before the vaccines are widely available, they actually had higher mortality from the virus itself. So, you know, even having a—let's say—a psychotic disorder would have justified getting the vaccine right away because of elevated mortality.

**John Moe:** Why did it elevate mortality?

**Royce Lee:** Here would be my—I don't know if this is exactly right, but here's my take on it. So, in the last decade, we've learned about the kind of genetic architecture of more severe mental illnesses, such as schizophrenia or bipolar disorder. And at least in the case of schizophrenia, the strongest genetic risk factor is the HLA part of the gene or MHC receptor, which is essentially your immune system's lexicon or dictionary of words.

So, there's a lot to that. You know, why is—and how come that and what's going on. All this to say that thinking of major psychiatric disorders as inflammatory disorders is a pretty good idea. It helps clarify a lot of mysteries like that one about, you know, why increased mortality? You know, maybe it's too simple to say, “Well, they have more inflammation,” but maybe it’s something like that.

**John Moe:** I've heard more and more about inflammation, related to mental health conditions in recent years. Is that something that is on the rise? Like, more of an acceptance that these things are strongly related to inflammation?

**Royce Lee:** Absolutely. I think the—you know, so I'm in my 50s. So, in my training years—let's say in my 30s, which would have been like the '90s—I started to hear more and more about kind of subfields of research, such as neuroimmunology. And you know, at that time, those seemed interesting but kind of like narrow, you know, bands of research. But, no, each psychiatric disorder has been linked to its own sort of signature of immune disturbances.

Our own work at UChicago had focused on the relationship between inflammation and aggression. So, like anger problems, that's a huge link there, lots of findings. But I would say that the two big things that make this so clear are that those major genetic findings—the significance of which is really kind of—it changes the field fundamentally and should change how we think of mental illness. And then the COVID pandemic and its effects on everybody's mental health. There's a lot about it that's about the stress, but I really think there's a lot about it that's about the immune response to the virus.

**John Moe:** Did you find that—so, the virus and possibly the conditions we were living in might have exacerbated, or clearly did exacerbate, mental health problems that people were having. Were those people more likely to develop new conditions that they hadn't had before?

**Royce Lee:** Oh! The question you're asking is entirely reasonable, and there's probably a study out there. I'm going to have to admit, I haven't seen it. But it—well, so the best answer that I could give is yes, new conditions. So, if we step aside from this idea of diagnosis, because even within the field—

[00:10:00]

—there's more skepticism about it than one might think as a consumer. And sometimes, you know, psychiatry is criticized for its kind of focus on these different labels and stuff, right? But like if we look at pediatric suicide—right?—it was already on the increase before the pandemic. And then, just like clockwork, as we would expect from the experience with the Spanish Flu in the 1918s, about a year or two after the lockdowns—so, both responding to social pressure and stress and isolation. But then again, this issue of epigenetics and inflammation—the, you know, teenage suicide rate just kind of skyrocketed.

So, pediatric units that were not that hard hit during the pandemic were very stressed out by pediatric suicide attempts. So, that's not necessarily reflecting new diagnoses, right? But suicide comes with many different mental health problems. And so, I would say that would be the clearest evidence for a yes to your question.

**John Moe:** Okay. How about people who didn't have any mental health conditions going into the pandemic and in the long climb out of it? Were they more likely to develop them if they had the virus, if they actually got COVID?

**Royce Lee:** Yeah. Right, right, right, right. So, I would say—you know, the practical answer to that is yes. And for example, like this increase in suicide rate in the pediatric—I think that's evidence of new problems. I don't know, some of them maybe saw a therapist before that, but I think many of them did not.

You know, I think—I wouldn't say that people should adopt this view, but this is the view that I have as a psychiatrist and my work in the neurosciences. The idea of not having a mental illness—maybe someday that won't be an idea. Just like, do we think of ourselves as not ever having a medical illness? You know, maybe I thought of myself that way in my 20s and 30s. But in my 50s, it's more like kind of a series of them, right? We just kind of run through them. In saying this, I'm not discounting the kind of life-changing major mental illnesses that people can experience.

But when we get to this idea of normality in milder states, I think one thing that most people observed during the pandemic is different kinds of shades of gray—right?—of mental health. And to the extent that those are illnesses or diagnoses, this becomes a kind of philosophical and scientific question. The biology though says that the brain is lucky to work on a good day, and it doesn't take a whole lot to throw it off. A little inflammation, a little sleep loss, a little stress, and people can act a little funky. Yeah.

**Transition:** Spirited acoustic guitar.

**John Moe:** We'll take a break here and let you ponder that for a second. Dr. Lee just introduced the idea that maybe there's no such thing as one segment of the population that has a mental illness or gets a mental illness and another segment that doesn't. So, if you've experienced depression, anxiety, a trauma disorder, whatever it is, it's not just that you're not alone. It's not just that other people deal with something similar. It's that everyone deals with something. We're all patients. Something to chew on.

**Transition:** Gentle acoustic guitar.

**John Moe:** Back talking with Dr. Royce Lee about mental health and the COVID pandemic, the long ripples from that big splash. Dr. Lee was talking about how maybe we need to think of mental health issues as something that the entire population will deal with at some point.

Wow, that's a new way of thinking about everything that I've been working on for a long time. (*Laughs.*) It's like every everybody has either something going on or definitely the capacity for something going on.

You're a psychiatrist. You're a professor of psychiatry. You study trauma, and you study posttraumatic stress. Is it—I like to ask scientists questions that I'm pretty sure they can't or won't answer, but (*chuckles*) was there more damage done by COVID itself—

[00:15:00]

—in terms of lingering mental health issues? Or from the way that we had to live life for a while?

**Royce Lee:** Yeah, those are, in theory, answerable. But I'm not going to be able to give the true answers, but they're good questions. So, here's how I would think about that. When it comes to—we can maybe divide this into what's like infection and inflammation. We could call that biological—right?—or external. What's trauma? As in the sudden changes. Like, no traffic suddenly. That's weird. Or you know, microchips running low, or civil unrest, or conspiracy theories and lack of trust. There's that kind of trauma.

But then there is something very significant, which is the science of social networks was used to design a very reasonable approach to stopping a—at the time, nobody knew if this was—was this the end of humanity? Was this going to be like *Planet of the Apes*? Right? Or was this just going to be very painful? A lot of people died, but we'll be okay? Nobody knew. So, I think, you know, without supporting or judging, it didn't seem that out of line to really try to stop the virus through cutting social networks. That was the whole strategy, and it was based on social network science. The same science tells us that's what protects against depression. You know, people really suffer if they're in isolation. That's why it's inhumane to isolate people in—let's say—prison.

So, there's that, and that's a big deal that people went through. Some people were okay with it, but most people were not. And children, probably most were not at all okay with it. So, there's—you know, there are different kinds of stresses that happen to society. And although we want to know how they all add up, to understand them I do think it's probably useful to take them apart a little bit. And I think they're all a little different, and everybody experienced kind of different levels of all three of these things, at least. Does that make sense?

**John Moe:** Yeah! Yeah, no, it totally does. Well, I mean, most people I know have had a COVID infection at least once, sometimes more than once. And everybody I know went through this living condition, this scare—you know, like it's important to remember now how much we didn't know then, in terms of where the disease was going.

So, are we all, then, just more likely to develop mental health problems going forward than we were if this had never happened? Are we all kind of screwed up from the inflammation and the infection and the trauma?

**Royce Lee:** Well, I would here kind of take the really, really long view. Like, as in—you know, viewing ourselves and sort of the light of eternity and history and mankind. You know, what we've been through. Our genome is mostly—well, let me pull back. Only a small percentage of our genome is making proteins. There's a lot of mystery. But then a big part of the mysterious part is thought to be junk from viruses. So, this is—you know—not the first or the last time a virus will sweep through mankind. It's been happening forever.

And yes, people have detected long term epigenetic changes from COVID infection. But this has been going on for a long time. And there's even plenty of evidence that some of those long-term changes to our genome have helped. They've introduced like weird new mutations

that probably enhanced health. So, you know. That's not helpful, though, for us, really. That long view.

No, I don't think it's that dire. Because... well, because humans adapt, and we invent new ways of coping, right? Like, it would be terrible if people were so rigid that all we had was what we learned before the pandemic, and we couldn't do anything else.

[00:20:00]

But you know, our history is that we figure out some way of coping. And as long as that way is not causing more problems, it's working. And that new way also helps us with the next thing that comes. You know, usually. So, I guess my thought would be, yes, there's some kind of impact on our bodies and our minds and our epigenome—like how our body expresses proteins. At the scientific level, we know it. There are studies showing long term changes to—for example—our immune system and our T cells. Maybe some of those are positive, some of those are negative.

We know from past epidemics that you can think of sort of like a wave with a start and an end. It lasts maybe half a decade of kind of new disorders that show up. Medical textbooks have to account for new things. And then it kind of calms down as the original stimulus goes away. So, you know, in that case—for example, in my area, there was something called encephalitis lethargica, which is essentially narcolepsy. And we've known that condition is very sensitive to the immune system.

So, for example—I think it was in Denmark, the H1N1 vaccine caused a wave of narcoleptic cases. And as evidence against vaccine conspiracies, when that happens, by no means is there a cover up. Instead like a bunch of scientists like sequence everybody's gene, and they just go crazy. Because it's like this amazing scientific effort, so it's not a secret. It's, in fact, a little unpleasant how quick scientists are to swoop in. (*Chuckles.*) But in any case, there was this wave of like sleeping sickness that was like a new medical problem.

So, with COVID, is there evidence that neuropsychiatric things are this kind of new thing? Yes. Yeah, it's a thing. Is it going to wipe us out? No. Are we going to need more therapy and more Prozac and more stimulants? Yes, and you can see from the medication shortages, yes.

**John Moe:** Yes. And the therapist shortages as well.

**Royce Lee:** And therapist shortages, absolutely. There's this stuff happening, and it's real.

**John Moe:** I have to ask the—you mentioned, and you've talked before about the connection between the immune system being activated like from a COVID infection and anger. Does the world seem angrier to you now than it did before COVID?

**Royce Lee:** Yeah. Here's where that division between my different real selves—like, you know, my drive home, I'm always wondering, “Is this normal?” And my conclusion is no, I don't think it's normal for people to honk that fast after the light turns green, right? To have so little patience for somebody making a little traffic mistake, you know. And so, what? Like,

you're home 10 seconds later? I don't think that's always been the case. So, I think there's something there. It's kind of hard to study that. So, I don't even try.

What I will say is—without being too confident, because it's early and unconfirmed—the overlap between the post viral changes in the immune system and what we see in aggression is pretty close. So—and it makes sense. Because if we think about it, you know, what the heck is the immune system there for? And what is the greatest risk to a person of getting a communicable disease? It's another person.

So, given that, right up until humans—who really changed their behavior based on learning and information—behavior changed through genetic pressure, right? So, of course, genes will shape behavior in response to the world. So—and you know, disease is social. And we shouldn't be surprised to see changes in social behavior while we're sick. And of course we do—right?—with these chemicals that cause us to be isolated and not that interested in having fun. So, the quick answer to your question is I think, yes, there is an increase in anger and aggression. But the caveat being it has not been conclusively studied.

[00:25:00]

And so, it would be premature to, you know, be too alarmed by that.

**John Moe:** Anecdotally. (*Inaudible*).

**Royce Lee:** And anecdotally, if you need an explanation, I think there's an explanation. Whether it's valid, I'm not sure yet.

**John Moe:** Royce Lee from the University of Chicago, thank you so much.

**Royce Lee:** Great to be here. I hope this has been—I hope this is helpful and informative.

**Transition:** Spirited acoustic guitar.

**John Moe:** Dr. Royce Lee is a psychiatrist and professor of psychiatry at the University of Chicago. Ahead, what did the stress of COVID do to the brains of adolescents? Scientists have found some interesting data, and it's kind of disturbing.

**Transition:** Gentle acoustic guitar.

**John Moe:** Let's drill down a little on one segment of the population that seems to have been affected more by the whole COVID experience in terms of lingering health effects.

Dr. Neva Corrigan was part of a team of research scientists at the University of Washington in Seattle studying the brains of adolescents. They observed that the social precautions during COVID—call it a lockdown if you want; call it safety measures if you want. The stress and isolation from that appeared to cause adolescent brains to mature faster, to age faster than

they otherwise would. And girls more than boys. 4.2 years faster for girls, 1.4 years faster for boys.

It's just one study, of course. And researchers are always hesitant to draw large, sweeping conclusions based on one study. But it's pretty interesting. I won't get too technical, but it has to do with the thinning of the cerebral cortex, which can make a person more susceptible to depression and anxiety.

**Transition:** Spirited acoustic guitar.

**John Moe:** Dr. Neva Corrigan, welcome to *Depresh Mode*.

**Neva Corrigan:** Thank you. Thank you for having me.

**John Moe:** It's a fascinating study. I've been reading all about it. Let's go back to how it started. What were you originally looking for with this study?

**Neva Corrigan:** We originally started the study to investigate relationships between behavior, role changes during adolescent development, brain structural changes, and brain function. The changes that occur in the teenage brain are not fully understood. And certainly, the relationship between brain structure and behavior are not well understood. So, that was our original intent.

**John Moe:** Okay. And then what happened?

**Neva Corrigan:** And then the pandemic hit. So, we acquired data in 2018. And the kids were supposed to come back in two years, so it was going to be a longitudinal study. The pandemic hit, so they did not come back in 2020. They came back in 2021, so it was still a longitudinal data set that we had collected. However, we realized that with this data set, we could not analyze it and say we were looking at typical adolescent development, because of this dramatic change that had happened in the lives of all of us. Which dramatically affected teenagers, as we know from just looking at literature on increases in anxiety and depression in teenagers.

**John Moe:** So, what did you find? You know, the article about the study was really interesting. What's the key finding that we take away from the research you did?

**Neva Corrigan:** Sure. And the key finding COVID lockdowns seem to have caused chronic stress that resulted in accelerated maturation of the teenage brain and that this acceleration was much more drastic in females than in males.

**John Moe:** And when we talk about brain maturation, we're not talking about acting more like an adult, right? We're talking just about the brain aging faster?

**Neva Corrigan:** Exactly. Yes. I'm an MRI scientist. So, the way I look at the brain is by looking at MRI images. And what I did was measure the thickness of the cortex, the thickness



of the cerebral cortex—which is where the cell bodies are, on the outer layer, on the surface of our brain. And that's where all of our advanced thinking happens, as humans.

The cortex starts to thin in late childhood. It's actually a normal process with aging, and it continues across the lifespan. However, in these teenagers, we found that the kids after COVID had a much higher rate of thinning. Or they had—their brains were simply much thinner than would be expected based on their age. And that this effect was widespread throughout the female brain, whereas in the male brain, we saw it in just a couple areas in the visual cortex. And then we also saw that the—for females, on average, their brain looked like they are four years older than they actually were, based on this measure of the thickness of the cerebral cortex.

[00:30:00]

**John Moe:** And why the difference between boys and girls?

**Neva Corrigan:** That's a very good question. We can only speculate. We do know that females tend to be very reliant on their peer networks for emotional support during the teenage years. Adolescence is a time, even in normal times without a pandemic, of a lot of stressors happening. A lot of changes are happening in the body, a lot of changes are happening socially. And talking with friends for girls is a way that I think they release a lot of this stress. And during the pandemic, we had a lot more isolation. And we had decreased opportunities for everyone to interact with each other. And we think that this isolation had a more dramatic effect on females. And in males—males tend to interact more physically when they get together and play sports or play video games, but not so much talk about feelings.

Another reason potentially that there was a difference between the effects on the male and female brain could simply be due to hormones associated with gender. The incidence of neuropsychiatric disorders in adolescents and adults are higher in females, and in males, even during normal times. And the reason for this has not been discovered. But one reason this could be true is that there might be an interaction between sex hormones and stress hormones in the brain, especially when you're considering the effects of the chronic stress—which we think we're looking at from the pandemic lockdowns.

So, it could be that the female brain is much more sensitive to stress. We know that stress produces high levels of cortisol. This is a chemical in our bloodstream that's also in our brain. The female brain could simply be more sensitive and more vulnerable to effects of high levels of cortisol during the teenage years.

**John Moe:** Is that a result of just how the brains are built in females as opposed to males, or is there a social conditioning element to that?

**Neva Corrigan:** What I just described there is a potential neurophysiological mechanism, you know, a chemical mechanism. We don't know. I think research is ongoing about this, why there's a gender difference. Previous studies have found that even in animals, like in rats. Studies of rats, looking at male versus females, that they have different responses to different stressors.

**John Moe:** Talk to me a little bit, if you could, about the connection between the thinning of the cerebral cortex and mental health conditions—anxiety, depression, some of these things. What's the connection between that thinner cortex and those conditions?

**Neva Corrigan:** That's a very good question. And I think that there is not enough research out there to point to the exact cause. What we do know is that accelerated cortical thinning has been associated with chronic stress in childhood, and this is something that's been well documented. In the past, this has been documented in children that were raised in orphanages in Romania and suffered a lot of neglect. Or it's been found in kids who suffered abuse or trauma. It's a correlational finding. They simply find that accelerated—that the thinning is accelerated in these kids who had these types of experiences.

What's really interesting is that whereas previously these populations have been studies who have had these extreme stressors, and they found this correlational finding with accelerated maturation of the cortex, what the pandemic provided us with information about is that even lower levels of chronic stress in kids who have normal lives are actually affecting the brain.

**John Moe:** In regard to this, the thickness of the cerebral cortex?

**Neva Corrigan:** Yes, exactly. So, previously we knew that extreme stress caused accelerated maturation of the cortex. The COVID-19 pandemic allowed us to see what the effects of lower level of stress does on the cerebral cortex. At least, that's what we hypothesize in our study is causing the thinning in the cerebral cortex. All these findings are correlational, so we can't directly link the two.

**John Moe:** What does this mean long term for the adolescents? Like, the ones that you studied. Like, if their brain, if their cortex is thinner, which leads to a higher likelihood, I guess, of anxiety and depression, is this a lifetime thing? Like, their brains are always going to be thinner than they would be? More prone to these conditions?

**Neva Corrigan:** That's a question that the findings from the study certainly invite and need investigation. At this point, we have discovered this finding, but in terms of what it means long term, we do not know. It is possible that their brains—that they could potentially recover.

[00:35:00]

Now, I just want to talk for a minute here about what the cortical thinning represents. So, the cortical thinning in the brain is thought to be caused by synaptic pruning. In young children, there is a proliferation of development of synapses throughout the brain. And starting in late childhood, throughout adolescence and throughout the rest of the lifespan, the brain starts cutting back these connections, cutting back these synapses to make the brain kind of more streamlined. However, under stress, this pruning seems to happen earlier and at a faster rate.

It's not clear that these kids who've had accelerated thinning—it's not clear how they could actually gain these connections back. But it's possible that their brains could return to a level

of cortical thickness that is typical for their age if the accelerated maturation doesn't continue. We don't know.

**John Moe:** I've got another question that I think you won't have an answer for, (*chuckles*) but I want to put it out there anyway. If girls are more social, and they were denied that social contact during the pandemic, and that resulted in increased brain aging, doesn't that mean we all now through society have gone through accelerated brain aging to some degree? Like, as humans we need social contact; we didn't get it for a long time; it took a long time to come back. Doesn't that mean this might have been happening to all of us?

**Neva Corrigan:** One thing I want to highlight about the adolescent period, the teenage years, is that the brain is very plastic. It's really a critical period for development of self-esteem, for development of social relationships, learning how to navigate the world, and learning how to navigate social interactions. They probably are more vulnerable to environmental influences than adults whose brains aren't changing—aren't in the middle of changing already, or aren't in the middle of restructuring.

So, during the teenage years, the brain is restructuring itself, or starting to restructure itself through the process of learning. Social learning. That's not happening in the adult brain. So, it may be that teens were more affected. However, there have been studies showing that there is an increased incidence of anxiety and depression in young adults. Certainly adults in the population were affected. So, it could be that this happened to some degree to everybody, but the teenagers are specifically vulnerable, because their brain is going through so many changes during that period of time.

**John Moe:** Dr. Neva Korrigan, this is fascinating research, and thank you so much for joining us to talk about it.

**Neva Corrigan:** (*Chuckles.*) Thank you.

**John Moe:** We have a link to that study by Dr. Neva Korrigan and her colleagues that we're talking about on our show page. You can read it for yourself.

We exist because people donate to our show. We like to think that we're helping people in the world, but it does cost money to make. And so, we ask you to help us as well. If you've already done so, if you've already donated: thank you. If not, don't worry. It's easy to do. Just go to [MaximumFun.org/join](https://MaximumFun.org/join). Find a level that works for you. Maybe it's \$5 a month. Maybe it's \$20 a month. We really need your support in order to keep this going. And then just click on *Depresh Mode* on the list of shows that it shows you. Be sure to hit subscribe, give us five stars, write rave reviews. All that also helps get the show out into the world.

The 988 Suicide and Crisis Lifeline can be reached in the US and Canada by calling or texting 988. That's free. It's available 24/7.

Our Instagram and Twitter are both [@DepreshPod](https://www.instagram.com/DepreshPod). Our *Depresh Mode* newsletter is on Substack, search that up. I'm on Twitter and Instagram, [@JohnMoe](https://www.instagram.com/JohnMoe). You can join our Preshies group over at Facebook. Just search Facebook for Preshies. It's people listening to

the show and people just connecting with one another about mental health issues, sometimes just giving each other a shoulder to lean on, which is important. So, search up Preshies on Facebook. Our electric mail address is [DepreshMode@MaximumFun.org](mailto:DepreshMode@MaximumFun.org).

Hi, credits listeners. I love it when I hear from you about the show. You send in comments, you post about it. I read all that stuff. *Depresh Mode* is made possible by your contributions. Our production team includes Raghu Manavalan, Kevin Ferguson, and me. We get booking help from Mara Davis. Rhett Miller wrote and performed our theme song, “Building Wings”. *Depresh Mode* is a production of Maximum Fun and Poputchik. I'm John Moe. Bye now.

**Music:** “Building Wings” by Rhett Miller.

*I'm always falling off of cliffs, now*

*Building wings on the way down*

*I am figuring things out*

*Building wings, building wings, building wings*

*No one knows the reason*

*Maybe there's no reason*

*I just keep believing*

*No one knows the answer*

*Maybe there's no answer*

*I just keep on dancing*

[00:40:00]

**Christian:** Hi. I'm Christian from Los Angeles, and we're getting better every day.

*(Music fades out.)*

**Transition:** Cheerful ukulele chord.

**Speaker 1:** Maximum Fun.

**Speaker 2:** A worker-owned network.

**Speaker 3:** Of artist owned shows.

**Speaker 4:** Supported—

**Speaker 5:** —directly—

**Speaker 6:** —by you!