



Volume 10 • Issue 2 • Spring 2020

# No Bones About it We Can Endure and Thrive



## President Felix Cheung, MD

West Virginians are a hardy bunch. Since our inception during the Civil War, we have endured multiple trials, from the rise in coal to its decline; from poverty to wealth to poverty again; from the influx of dirty industry, to the exodus of our youth. And yet we endure.

These days we are challenged by a virus, forcing us to adjust our lives and our livelihoods. We wear masks, keep 6 feet away, avoid indoor crowds. We have reduced surgeries to keep beds open for a potential onslaught of critical patients. Folks are dying from the disease, and patients have delayed crucial treatments for cancer, heart problems and fractures due to the fear of

getting COVID. Because of all of this, we have lost over 2,100 extra West Virginians during this time (CDC estimates). And yet we endure.

There is light at the end of this tunnel. COVID cases and deaths have plateaued. The state is cautiously opening up again, allowing more freedoms, activities, surgeries. And as we awaken from our lockdown, we can still see the other plague that has affected us, perhaps even more so than COVID.

The opioid crisis has been brewing since the early 2010s and is still with us. All of us have friends, family and patients who have been affected by this disease. Between 400 -700 West Virginians die from overdoses every year, and I am positive some of those excess deaths over the past two months are from extra overdoses from citizens who were left to deal with their demons without distractions, support groups, or a job. And yet we endure.

But there is light at the end of this tunnel too. Fatal

**We endure**

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# COVID: Private Practice Perspective

**“I feel that we were fortunate that we did not have to layoff anyone and that we were able to keep our doors open. Many businesses were not so lucky.”**  
**- Clint Welch, JD**  
**First Settlement**  
**Orthopaedics**

As a seven-physician private practice with two locations, we have been through a lot in the past 60 days. A week before the governor of Ohio essentially closed the state, we had to quickly begin to prepare to remain viable. The first step we took was to reach out to our banking partner and increase our line of credit. We then tried applying for the SBA Economic Injury Disaster Loan (EIDL), but we had to wait until our governor submitted the application for Ohio to qualify for assistance. This application required a lot of information and time. As of the date of this writing, we have not heard anything back from the SBA in regards to this loan.

After the state was locked down, our patient volume started to drastically decrease. In response, we went to five half-day shifts at both locations with open-ended morning shifts. Staff hours were decreased by 40-50%. We applied for the SharedWork program through the Ohio Department of Job and Family Services which essentially allowed the staff to file for partial unemployment due to the reduction in hours. This has worked out very well for the staff, especially with the additional \$600 from the federal government, but it has required a lot of administrative oversight.

We were able to apply for the Paycheck Protection Program (PPP) through the

CARES Act. This essentially helps pay for eight weeks of payroll along with the some other overhead expenses. We held off on the funds as long as possible as we wanted to utilize the eight-week period when we felt the patient volume would start increasing, and thus are needed to increase staff hours. Also during this time we were surprised, as almost every other practice, to find that HHS had placed a grant in our bank account to help deal with COVID patients and decreased revenue.

Last week the government announced that there would be a second round of HHS stimulus money. This time we had to apply through a portal and estimate our March and April revenue losses. We are supposed to see these funds within ten days. As with the PPP, the first stimulus, and now this, the rules and terms for compliance with receiving and utilizing the funds are not clear. Thus we are trying to set these funds aside until we have further clarification and are sure that the government won't ask for the money back from us.

We have seen an uptick in patient visits the past two weeks as more people view this COVID pandemic as nothing more than a bad flu season and that the government overreacted with really bad data. The lockdowns supposedly took place in order to keep our hospitals from  
**Perspective** More on page 21

# Josh Tuck Scholarship Awarded

The West Virginia Association of Orthopaedic Executives (WVAOE) is pleased to announce the awarding of the 2020 Joshua Tuck Scholarship. Our recipient is Juliana Summers (no relation), a senior at Fairmont Senior High School, who will be attending Fairmont State University this fall.

When Joshua Tuck died in May 2021 at the age of 30 from a car wreck, he was the Vice President of the West Virginia Association of Orthopaedic Executives at the time of his death.

The Joshua Tuck Scholarship was created by the WVAOE Board of Directors to help support a student studying healthcare management. Applicants were required to be (1) West Virginia high school seniors; (2) must major in healthcare management and (3) enroll in one of four schools offering the healthcare management major; and (4) submit a 450 – 500 word essay answering the question: "Describe your community's issues with opioids and explain how you would reduce the problem."

We were pleased to receive 11 applicants this year (down three from 2019 due to school closings for COVID) from Boone, Braxton, Greenbrier, Harrison, Jackson, Lincoln, Marion and Nicholas Counties. All applicants had grade point averages over 3.50.

To get the perspective

from the next generation of West Virginians, we are reprinting their essays on the following pages. The essay from our winner is identified by name; the remaining nine are identified by high school and county. One applicant did not provide an essay.

As part of our efforts to help bring awareness to the opioid issue and ways orthopaedic surgeons can help reduce the problem, we will be sharing this issue of the newsletter with members of our congressional delegation during meetings later this year.

The Josh Tuck Scholarship is a one-time-only \$2500.00 scholarship. We would welcome your contributions to keep this scholarship viable for years to come. Contact the WVAOE/WVOS office to donate.



**WVAOE is  
honoring  
Joshua Tuck's  
legacy with a  
scholarship.  
You can  
contribute to  
keep it going.**

# Why Don't Citizens Do Something?

"This isn't a place where anyone would want to live -- however, it is my home."

- Juliana Summers

An addict dangling a machete in the local Family Dollar parking lot. Dead drug addicts being found in dumpsters or on the side of the road. This isn't a place where anyone would want to live -- however, it is my home.

Driving down the streets of Fairmont, I witness drug addicts walking every which way. All of the areas in my county are becoming possessed by these people. Normal citizens have even become terrified to do simple things such as walk to their car at night, go to certain parts of town, or even visit the public library. These citizens, who have done nothing wrong, are in a state of fear. Everyone in my town has had some experience with the opioid epidemic.

For a few years, I worked in a bad part of town. While working there, I was shocked and horrified by the things I encountered due to this epidemic. One horrifying occasion was my elderly boss walking out to his car, just to find an addict scavenging for goods inside. He shouted at them, but the addict tackled him. These people don't care who they harm. Elderly, young, middle age, old - all they care about is their means of getting their next fix. My job was in a location that should have been a safe zone, stationed next to a middle school and preschool. However, this was no safe zone.

In recent years, the opioid crisis has become a growing

concern in the United States. This problem was created by an increase in prescription drugs. The major cause of this crisis is doctors allowing patients to receive prescription drugs because of the claim that something is 'hurting'.

These pharmaceuticals are supposed to be a helpful way of healing. In 1990, pharmacists stated that patients wouldn't get addicted to opioids - now, however, opioids are one of the leading causes of death.

Many strategies can be put into action to end this epidemic. But it won't just take one person - it is going to take many. The establishment of neighborhood watch programs could be a major player in the termination. Often times the main port for these exchanges are at local safe zones such as gas stations and grocery stores. If a citizen sees something suspicious, they should call the police. This can get the addict help from doing harm to themselves or someone else.

Another useful strategy would be not throwing away prescription drugs. These people scavenge for goods in the garbage cans. Citizens not throwing these drugs out, may help ensure that they don't receive the prescription drugs they are addicted to taking.

The opioid epidemic can be stopped. However, the community must raise awareness, rather than bashing these addicts on the

**Citizens**

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# Is It Even Possible to Resolve This?

My community's opioid issue is a little different from the rest in a way that you normally would not think was possible in the opioid infested world. Here they misused everyday by people you would expect and the ones you wouldn't expect. The opioid addicted people hide their misuse to an extreme level including the open minding about it. Although it is not as predominant as other communities any misuse of these drugs leads to loss of both possessions and loved ones. When looking back at this problem you ask yourself where they went wrong? Or how did they succumb to the oldest trap in the book that we were all taught not to getting to?

We ask ourselves how to fix their problem(s) when we should be asking how to prevent further cases of addiction. To fix these issues we must go to the root of the very thing we wish to eliminate. To eliminate opioids, you must first see what their medical use is and is there are any non-addictive substitutes available? If another non-addictive drug presents itself, then slowly switch the drug overtime. If not, then we must go to the people that are addicted and ask how they came into possession of this substance if they have looked for help and how this substance affects their

daily living if at all. These are very personal questions I know but people that want help or looking to help others out of it would be more than likely to participate as people have before.

This may help to reduce this issue in people who are not medicated for certain reasons but will not fix the black-market sales in the state and communities. With that said we must ask ourselves is it even possible to resolve the problem at hand? To answer that we must look to our past and to our future. The past will tell us if any similar issues were fixed or if they were only reduced for a brief period of time. If similarly, addictive drugs were uncommissioned successfully then there is a possibility of resolving this. When looking to the future we must see if other treatment is possible or if lives are threatened not by their own choice but of the possibilities of treatment not being practiced.

When looking at the at the ratio of lives lost due to the inability to treat a patient and of recreational use, we must look to the lives that could be saved on both spectrums. With this all said the only way you can reduce or eradicate a problem as severe as this you must be willing to do the research along knowing the chances of not being able to.

**"We ask ourselves how to fix their problems when we should be asking how to prevent further cases of addiction."**

# Caught In a Web of Destruction

**“These  
struggling  
addicts didn’t  
plan to live this  
lifestyle.”**

All around the world the opioid epidemic is a struggle that millions face. I’m saddened to say that I witness this struggle on the daily. My community and many all around have so many people trapped in this horrific lifestyle. It is very heart wrenching to see children come to school with nothing or seeing my fellow classmates raising themselves because their parents have put this horrible addiction in front of their own children. What makes the situation worse is watching those kids following in their parents footsteps starting down the wrong pathway living the same terrible lifestyle just like their loved ones. As I drive down the road I witness people delirious and not even knowing where they are and their surroundings. My heart breaks for anyone fighting this battle because I personally have witnessed a close cousin become hooked on opioids and no matter what was said it broke my heart watching her just deteriorate and wither away because of this substance. Many can just stand back and judge those suffering, but what they fail to realize is these struggling addicts didn’t plan to live this lifestyle or become addicted to opioids or any type of drug; they had the same dreams as the rest but were caught up in a web of destruction. It only had taken one try of this devilish drug and they were bound to this drug

and a hopeless recovery.

If the decision were mine to help reduce the problem of the opioid epidemic in my community I would have more rehab centers on the western end of Greenbrier County so that addicts on this end would not have to travel as far and maybe would be more motivated to get help closer to home. Another way I would choose to help make a difference would be to make the punishments hard because people addicted do not go to jail for one night and the next day are back onto the streets dealing in the same thing. If an addict was truly pushed to get clean and didn’t have the opportunity to go back to the old ways and was set free of the burdens of addiction I truly think they would choose the better lifestyle. Lastly I believe that if someone had overdosed that they should be given Narcan, but if the addict chooses to go back onto the horrible drug that killed them once and overdoses for a multiple of time I don’t think they should be given Narcan multiple times because of overdosing. I think if this was the punishment these people addicted would think more about their decisions and think harder about quitting these horrible drugs. It truly is a shame what the world has come to and anything that can be done to make our world a better place needs to be done.

# No One Is Willing To Step Up

Statistics have shown that West Virginia has the highest drug overdose rate, involving opioids, in the nation. Being from the area of Boone County, West Virginia, it is quite apparent that we have a huge opioid issue in our community. It has come to the point that it is unlikely for a resident of this small town to not see an opioid addict on a day to day basis.

Our entire community is aware of the opioid crisis, yet no one is willing to step up and do something about it. The opioid issue in my community has grown to be the problem it is today because opioids (along with other drugs) are very easily accessible to citizens of not only Boone County, but to all of West Virginia. Opioids are very dangerous when consumed without need, consumed more often than prescribed for, and in large portions.

I think Boone County needs to begin with making our citizens more aware of how threatening opioids can be to one's wellbeing. We need to implement more advertisements locally, and even if this action would catch the attention of one person it would make it worth it. Making opioid awareness posters to hang in local businesses, creating social media advertisements, and even bringing in public speakers to community events are ways to make citizens aware. Another factor that could help reduce the problem is to make

harsher punishments for the opioid abusers and dealers. Those who are caught using opioids illegally are faced with minor punishments, and these minor punishments show little effect in encouraging users that their decision has major consequences.

Overall, it is not a secret that West Virginia has an immense opioid issue, and I see it in my own community every day. A list of ideas of how to improve this epidemic could go on forever, but what my community needs is someone to step up to put these ideas in effect. Opioid users typically become addicts because of being raised by abusers, peer pressure, or becoming addicted after using their prescription medications. These ways of becoming addicted can be avoided if Boone County advertises the opioid issue and makes efforts to implement harsher punishments for opioid abusers and dealers in the community. The opioid epidemic has become such a huge issue, and it is only growing into a larger issue. I believe if people of the Boone County community join together and step up to advertise why not become a opioid abuser, or how to get help if you are already an addict, it would greatly lower the amount of opioid users in our small town. Even fighting to create harsher punishments for addicts could discourage those

**Step up** More on page 21

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# I've Seen the Problem First-Hand

**"The heart of the epidemic is in Appalachia."**

Living in the middle of the Appalachian area of the US, I have grown up around constant drug abuse, especially opioids. Most people believe that opioid epidemics would strike larger, urban areas like New York City, or Los Angeles, but the heart of the epidemic is in the middle of Appalachia. In my community, I see people and families that have been affected by opioids. All the time, as you drive down the road, people are walking up and down the streets looking rough and clearly on drugs. Many people that I go to school with are affected by drug addiction as well. In Appalachia, people from age 25-44 have a 70% higher overdose rate than the rest of the country. Also, people from age 15-64 have a 65% higher overdose rate than the rest of the country. West Virginia alone has the highest age adjusted rate of drug overdose deaths involving opioids. In 2021, there were 833 drug overdose deaths involving opioids in the state, a rate of nearly 50 people per 100,000.

I have seen first-hand what opioids can do to a person and their family. I have a cousin that has been addicted to opioids and has even overdosed twice, but luckily was able to survive both occasions. After dealing with all of that, he hit rock bottom because of his drug addictions. He lost his driver's license, his kids, house, and even went to jail for a

short amount of time. Even his brother had similar problems as well, but fortunately, they are both clean now and have their lives on track. Those brothers had been drug addicts for all of their adulthood and had tried rehabs of different sorts but failed at most. One of them, luckily recovered while being in jail for several months and the other went to a rehab facility for approximately 9 months to recover. I have another cousin that had opioid addiction problems for all his adulthood also. He struggled for many years with his problems. One morning his own father found him in his bedroom, in which he had overdosed and died from. Unfortunately, his death was due to heroin. He left behind his two young children.

In order to fix the opioid problem in my area, I think that before people are prescribed different medicines, they should have a background check to see if they have been addicted to any drugs before, or if they tend to have an addictive behavior, or if family members have had issues with addiction in the past. Even some medicines that help to prevent addiction to other drugs are still addictive, like Suboxone and others.

Along with this, I think that schools should take more steps to helping the prevention of addiction, as well as aid for the children and teenagers that

**First-hand** More on page 21

# We Need To Help People Change

Some people turn to opioids because they have trouble with their emotions or thoughts. Whether it is a friend, a friend's parent, or a family member everyone's life has been touched by opioid addiction. In all reality, there is not anyone in the world who has not been somehow encountered its damage to society.

At the end of August, I will start working on a degree in psychology. Once I have completed my doctorate degree, I can help people understand their emotional struggles and harmful thought patterns. I will also be able to suggest different ways they can cope with their emotions. People who are trying to come back from a drug addiction can often face skepticism from their family and friends. The skepticism they face from those people can send them into depression or it can make them determined to prove them wrong. Someone who has struggled with a drug addiction can come back and have a good life. I want to also help the family and friends of drug addicts. Drugs can make you lose faith in someone and they tear families and friendships apart. I could help loved ones to understand how they are feeling so they can try to restore lost relationships and build a better life. I would also like to help society see people who are addicted to opioids in a different light. People on

opioids often have tried to get help but have been turned away because no one thinks they can change.

In my area, there is a lack in mental help for those who are addicted to drugs. Most individuals must travel at least an hour away, so it is harder for them to get help. Many other towns are like mine. I want to help in any way so smaller towns can be better acquainted with the recourses needed to treat those who are addicted to drugs.

I aspire to treat clients and help them combat the beginning cycles of addiction. If someone gets help early, the processes of building a better life and better coping methods will not be as painful for the addict or their family and friends.

In conclusion, some people use opioids when they don't know how to handle their emotions, cope with trauma, or are not seeking the proper treatment because they are not aware that they need it. Most small towns don't have the proper resources to help an addict, so they must travel from their home, and are less likely to get help. For the use of drugs to decrease, people must stop denying them help just because they don't believe they can change. I would like to help their loved ones understand what they are going through and how to help better their

**Help change** More on page 21

**“In my area,  
there is a lack  
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drugs.”**

# Try Education, Alternatives, Rehab

“With a staggering 21% of 3,700 citizens living below the poverty line, opioid abuse is not unfamiliar to many families.”

Ravenswood West Virginia is a small community nestled in the Ohio Valley. With a staggering 21 percent of 3,700 citizens living below the poverty line, opioid abuse is not unfamiliar to many families. Working at an elementary school part time as an office assistant, I see firsthand the effects on these kids' families. In West Virginia, it's estimated that more than 50% of students are not being raised by their parents. Cases where students are raised by drug addicted parents, being late to school or are absent frequently is not uncommon, consequently making them fall behind academically. After seeing the people of Ravenswood struggle with abuse, I feel that through educating the current generation about prevention, finding possible opioid alternatives, and promoting easy access to rehabilitation treatment could possibly ease the spread of the opioid epidemic. To start, focusing on the younger generation, possibly being raised by drug abusive parents, or having family members that are addicted, educating them about addiction and recovery can be exactly what we need to do. Countering stigmas by adopting phrases throughout education and recovery could aid in pushing back the pain of opioid abuse. Encouraging success and confidence within themselves among victims of

this epidemic could drastically motivate the prosperity of our community. Not only do we need to prevent the future generations of our community from becoming drug dependent, we need to keep the production of these harmful substances off of our streets. Overproduction of unused medication leads to the misuse and distribution of these drugs, putting them out on the streets. Another way to suppress the use of opioids in my community would be encouraging non-opioid pain relievers and treatment. Possibly limiting doctors on the number of prescriptions they write for opioids could decrease this misuse. Easy access to addiction treatment is also an important factor in how I would decrease opioid abuse in my community. “MAT” or medication assisted therapy, includes patients receiving counseling, behavioral therapy, and medication to aid them in recovery. They are encouraged to set goals for themselves, celebrate progress, and attend support groups to help change their lifestyles. Residential treatment services or rehabilitation facilities would also play a role in how many residents could overcome their addiction. Opioid addiction is a debilitating disease and plays a large role in unemployment, crime, and poverty in the United States. According to **Alternatives** More on page 21

# Come Together, Raise Awareness

Opioids are obviously a very detrimental factor when addressing West Virginia's communal problems. We as an entire state rank 1st in opioid involved drug overdose as reported by [drugabuse.gov](http://drugabuse.gov). This is without a single doubt the largest issue we as West Virginia residents face within our community, and there are still some people who don't realize our situation.

Personally, I am blessed with not having to worry about losing one of my loved ones or close friends due to this terrible epidemic, and thankfully it is not something that affects me as an individual within my local community and school. However, this is only locally speaking, concerning my city of Surveyor and surrounding areas, when addressing "local" as an entire state there is a serious problem. Lawmakers and officials are attempting to lessen the issue; however, it feels as though this is not their priority on their agendas as it should be. We lose nearly 50 people per 100,000 in our community. This as a rough estimate does not seem like a large loss, but can anything really be constituted as a "large loss". Any amount of death in high numbers within our community is devastating and needs to be addressed.

We need to bring awareness to the issue if we to start a resolution. Not enough people understand the severity of the

issue we face, and it should concern more than just West Virginia residents. This should be a national scale solution, and not just a movement to help West Virginia alone but every state heavily effected by the epidemic. A method that has been proposed begins with restricting the flow of opioids throughout the state. This requires cooperation between head officials, law enforcement, industry, and the public. We need large pharmaceutical industries to work in cooperation with law makers to aide in regulating the flow of opioids through the public. As responsible as the states federal office is, it is just as important for the public to address the issue. We as a community need to come together and notice those going through this struggle and embrace them into a new resolution. We cannot abandon those effected and must always keep them within our thoughts.

After the support form locals, we can make an attempt at administering opioid reversal drugs such as naloxone. These would help counteract the harmful effects of opioid overdose and can be administered by EMT' s and law enforcement. This is not the only way in which we can counteract these events however, as we could also open our minds to several treatment programs and community

**Awareness** More on page 21

**"We need large pharmaceutical industries to work in cooperation with law makers to aide in regulating the flow of opioids."**

# The Path of the Problem

“Taking opioids is not wrong in any way. It becomes wrong when you cannot live without it and refuse to give it up...”

You may ask yourself what is an opioid? An opioid is a broad group of pain relieving drugs that work by interacting with the opioid receptors in your cells. Once you take opioids they travel your system and allow the cells to muffle your pain, and allow you to think the pain is gone. Opioids are very dangerous and can cause many overdoses in the entire world if taken incorrectly or abused.

Some symptoms of taking opioids are drowsiness, slow heart rhythm, or even nausea and constipation and hallucination once abused. If an opioid is taken incorrectly addiction can occur and can cause many problems with the person's nervous system. Even though you are not abusing the drug you can still get addicted because it provides an intense and euphoria that is hard to give up. Taking opioids is not wrong in any way. It becomes wrong when you cannot live without it and refuse to give it up and cannot get help to give it up.

In America, every day at least 128 people die every day due to opioid drug overdoses. The amount of people that are addicted to prescription pills, heroin and synthetic opioids such as fentanyl are even higher. This occurred because in 1900s the pharmacy companies had believed that no one would become addicted to these prescribed opioids so they

started prescribing them at a higher rate. This had eventually led to the widespread diversion of overdoses and addiction among people in the United States. In 2021, there were over 47,000 deaths due to an overdose from opioid, 1.7 million suffered from a substance use, such as the pain reliever opioids and 652,000 suffered from a heroin abuse.

Roughly over half of the users from opioids are chronically abused. The opioids get prescribed, they do not follow the doctors' instructions and then they become addicted. They want the medicine to take the pain away completely. Once the cells start to shut down they cannot feel anything and continues to take the medicine and then they're addicted. Then they go to the doctor to get more pain relievers and then they are satisfied again. Even though all states in the United States have felt the pain and suffering of one abusing the opioid, Ohio is the number one in the list of opioid addiction and overdoses.

Some symptoms that occur when an opioid abuse is happening are, low energy. You will not have any energy in anything that you do and you will not want to do anything. Change in appearance, you will start to see some differences in your loved one. They will not be taking care of themselves and not respect their body.

**The path** More on page 21

# Research Safer Alternatives

Looking at our community's issues, I believe that opioids are one of the biggest we face daily. If you take the time to think, there are new drug busts involving opioids in our newspaper on a weekly basis. This is happening way too often for how small our community is. As of the year 2021, our population was 14,237. Almost every one of those 14,237 people in Braxton County knows someone or is someone who is a user of opioids or other addictive drugs. Some of the most common of these are hydromorphone, hydrocodone, and oxycodone. More than likely, you have probably heard of some of these drugs being prescribed to some of your family members, which is very common. I believe this is one of our problems we have contributing to our outbreak. These drugs are given out too easily and quickly. I believe that we should contribute a team of researchers to find safe alternatives to these drugs that still give the same amount of pain relief but not give out the same feeling of reward and relaxation that you would get if you took an opioid. This would reduce the thrill of using these types of drugs and also reduce the "coolness" of using. I believe that I could help reduce the opioid epidemic in my area in a couple of ways.

One way is to share some personal experiences. I have a cousin that began using opioids right after having a terrible car accident. She has continued using, even though she has attempted to quit a few times. I have seen first-hand what kind of damage can be brought on a child and their family. It doesn't seem to be a very bad problem in your community until it happens to your family and you begin to realize the signs of a broken family because of opioids. Another way I believe I would be able to contribute to lowering the opioid epidemic is to use my career option. I plan to go into emergency medicine when I graduate medical school. After the completion of medical school, I believe I can help the opioid epidemic by the medicine usage in my wing of the hospital. If we can find a safe alternative to certain opioids that hospitals use for pain management, this could cut down on the people exposed to their addictive properties. After this step, this could lead to other parts of the hospital to decrease their usage of opioids in their wings. Ultimately, this will put an effect on the pharmaceutical efforts. Since there will be less opioids prescribed, there will be less refills for opioids. If we put effort into research, this problem could eventually be solved.

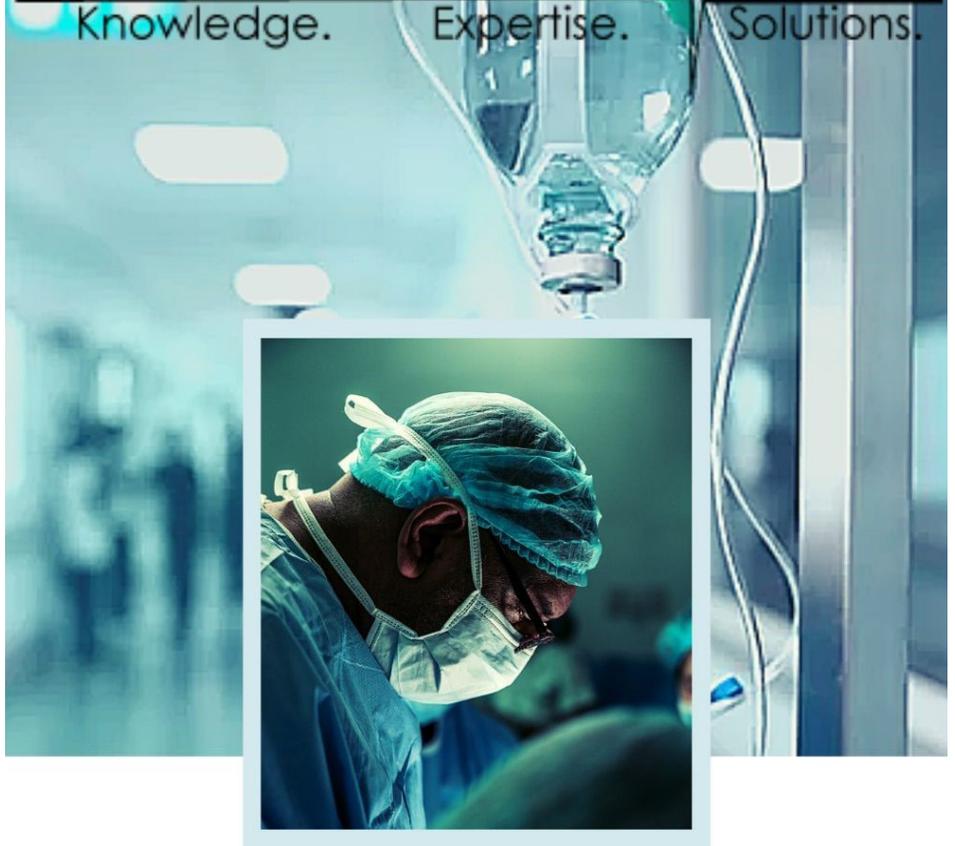
**"If we put effort into research, this problem could eventually be solved."**

# Professional **Risk**

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# Using DBS to Fight Opioid Addiction

The [West Virginia University Rockefeller Neuroscience Institute](#) and [WVU Medicine](#) announced the launch of a first-in-the-U.S. clinical trial using deep brain stimulation for patients suffering from treatment-resistant opioid use disorder.

Funded through a grant from the National Institute on Drug Abuse, the clinical trial is led by principal investigator [Ali Rezai, M.D.](#), executive chair of the RNI, and a multidisciplinary team of neurosurgical, psychiatric, neuroscience and other experts.

The team successfully implanted a Medtronic DBS device in the addiction and reward center of the brain. The trial's first participant is a 33-year-old man, who has struggled with substance use disorder, specifically excessive opioid and benzodiazepine use, for more than a decade with multiple overdoses and relapses.

West Virginia has the highest age-adjusted rate of drug overdose deaths involving opioids. In 2021, drug overdose deaths involving opioids in West Virginia occurred at a rate of 49.6 deaths per 100,000 persons, according to NIDA.

"Our team at the RNI is working hard to find solutions to help those affected by addiction," Dr. Rezai said. "Addiction is a brain disease involving the reward centers in the brain, and we need to explore new technologies, such as the use of DBS, to help those severely impacted by opioid use disorder."

The first phase of this clinical trial involves four participants. To qualify, patients will have failed standards of care across multiple levels

of WVU Medicine's comprehensive inpatient, residential, and outpatient treatment programs that include medication, as well as psychological and social recovery efforts.

"Despite our best efforts using current, evidence-based treatment modalities, there exist a number of patients who simply don't respond. Some of these patients remain at very high risk for ongoing catastrophic health problems and even death. DBS could prove to be a valuable tool in our fight to keep people alive and well," [James Berry, D.O.](#), interim chair of the [WVU Department of Behavioral Medicine and Psychiatry](#) and director of [Addiction Services at RNI](#), said.

DBS, or brain pacemaker surgery, involves implantation of tiny electrodes into specific brain areas to regulate the structures involved in addiction and behavioral self-control. This study will also investigate the mechanism of the addiction in the brain. The U.S. Food and Drug Administration has approved DBS for treating patients with Parkinson's disease, essential tremor, dystonia, epilepsy, and obsessive-compulsive disorder. The RNI team routinely uses DBS to treat patients with these disorders.

For more information about the trial, call 304-293-5150 or email [wvurni@hsc.wvu.edu](mailto:wvurni@hsc.wvu.edu).



**"DBS could prove to be a valuable tool in our fight to keep people alive and well."**  
**Dr. James Berry**

# Has Pandemic Worsened Epidemic?

“The COVID-19 pandemic strikes at a moment when our national response to the opioid crisis was beginning to coalesce.”  
Alexander et al  
April 2, 2020



## Accidental Overdose: A Leading Cause of Death

“The COVID-19 pandemic strikes at a moment when our national response to the opioid crisis was beginning to coalesce, with more persons gaining access to treatment and more patients receiving effective medications.

COVID-19 threatens to dramatically overshadow and reverse this progress”

Opioid misuse has reached alarming rates globally, with opioid-related fatalities climbing 500% to reach its highest level in 20 years.<sup>(1)</sup> In the United States, overdose from opioids is the leading cause of injury-related death with an estimated 130 opioid-related deaths occurring each day.

<sup>(2,3)</sup> The consequences of this are so prominent that progress we’re making in prolonging life expectancy of Americans and Canadians has halted in recent years.<sup>(3,5)</sup> Orthopedic surgeons are amongst the

highest prescribers of opioids.<sup>(6)</sup> As COVID-19 impacts delivery of care, surgeons may be prompted to conservatively manage patients that would have otherwise been operated on in the past. While surgery is associated with acute postoperative pain, patients tend to fare better in the long run.<sup>(7,8)</sup> As more patients are being conservatively managed, it is important that we are cognisant of our prescribing practices and maintain conservative measures in accordance with established guidelines such as The Canadian Guideline for Opioids for Chronic Non-Cancer Pain and the Orthopaedic Trauma Association Musculoskeletal Pain Task Force.<sup>(9-10)</sup>

## Are Orthopaedic Surgeons Losing Focus?

Short answer. No. Can the speciality of high prescribers do better? Of course, they can.

OrthoEvidence polls reveal  
**OEInsights** More on page 18

# Genetics and Opiate Use Disorder

Opioid use disorder (OUD) is the leading cause of death in people under 50 years of age, has more annual deaths than the current US death count for the coronavirus pandemic with WV leading the nation in overdose deaths (Seth, Scholl et al. 2018). As with coronavirus, a focus on prevention and treatment is critical with certain populations more susceptible to the effects of the disease. One aspect of testing for OUD is finding genetic susceptibility; the WV cohort is particularly well suited for studies in these areas.

In late 2019 in Science (Wang, Stoveken et al. 2019), researchers found a way to diminish the effectiveness of prescription opioids using genetic techniques. A protein, called GPR139 was found to inhibit the effect of mu-opioid receptors (MOR). MOR is the main molecular target for the euphoric effects of opioids and the therapeutic effects of methadone and buprenorphine in OUD. When this DNA was modified in mice to activate production of GPR139, the mice stopped taking morphine due to lack of interest. So, no addiction, analgesia, or reward. When this DNA piece was altered and no GPR139 was made, the effectiveness of morphine increased with minimal withdrawal. A genetic approach to improving opioid safety is a very novel approach to this disorder. Further discovery of genetic alterations

leading to susceptibility or prevention strategies for OUD are therefore critical. For our state, interesting genetic differences have been recently reported.

In WV, a 2019 report found that four single nucleotide polymorphisms (SNP) are associated with opioid use disorder in WV (Kaski, Brooks et al. 2019). SNPs are the most common type of genetic variation among people with single base changes in DNA. In the study out of WVU, 60 patients diagnosed with OUD (DSM-V) had genetic testing from buccal swabs. Although the study was limited to 14 SNPs in 8 candidate genes, it is interesting to note that two associations were in the OPRM1 gene encoding for MOR. The bigger picture is genetic screening for SNPs can be done before instituting opioid management protocols to identify at risk populations for OUD. Additionally, molecular targets like GPR139, can be identified to alter the feedback loop of opiate analgesia, reward and withdrawal.

This report was to highlight WV databases and research that can yield genetic susceptibility testing and prevention strategies to address the OUD epidemic in our state.

**A genetic approach to improving opioid safety is a very novel approach to this disorder.**

“... we are  
gravely  
concerned that  
COVID-19 will  
increase already  
catastrophic  
opioid  
overdose rates”  
Becker and  
Fiellin  
April 2, 2020

**OEInsights** More from page 16 interesting insights. The majority of surgeons (53%) surveyed report they don't routinely enquire about a past history of substance abuse before prescribing opioids to their patients. Digging a little deeper, many of these surgeons do ask when they suspect opioid misuse. But 12% in our sample answered, "I never ask". We expected this response item to be "0%" of surgeons, but it was not.

Prescription opioids are often at the root of opioid use disorder. Identifying high risk individuals who may benefit from alternate pain management options or more stringent follow-up should be a key priority.<sup>(11)</sup>

Two in three surgeons stated that their opioid prescription patterns have not changed during the COVID-19 pandemic, while 1 in 3 stated they prescribe less opioids. This seems contrary to the notion that opioid use disorder has increased during the pandemic. While the findings from this poll may suggest reduced opioid prescribing, we are concerned that 1) physicians may be hesitant to be more liberal with pain prescriptions when it may otherwise be indicated, 2) pain may be undertreated in the current climate and 3) the patients who are being prescribed opioids in this setting are not being adequately screened for their propensity of developing dependence or abuse.

**Virtual Care and the Downside of Physical Distancing Policies**

This is especially important given the fact that the management of opioid use disorders has significantly shifted due to social separation practices in unprecedented ways. Previously, patients receiving opioid substitution therapy (most commonly methadone or buprenorphine) required daily observed dosing and routine urine toxicology screens to ensure adherence to treatment and patient safety. As we aim to account for risks of COVID-19 spread associated with frequent visits to pharmacies and clinics, governing bodies have notified physicians to loosen prescribing practices and deliver care virtually whenever possible. This includes providing patients with more take-home doses (or carries) early in their treatment course, in contrast to previous practice whereby patients would have been required to earn carries by proving to be compliant with therapy and free from illicit opioid use. This is especially important amongst the methadone population, who are at highest risk for overdose due to the lack of ceiling effect that is seen with buprenorphine.

**Significantly Fewer Interactions with Patients**

The rigid regimen associated with being on an opioid substitution therapy, including frequent dispensing, observed dosing and urine toxicology screening are often cited as barriers to care by patients with opioid use disorder.

<sup>(12)</sup> Therefore, it would be hypothesized that by removing

**OEInsights** More on page 19

**OEInsights** More from page 18 such factors, patients would be more likely to seek care. Interestingly, based on our clinical experience at the Rapid Assessment Addiction Medicine Clinic, patient visit rates have dropped significantly since the declaration of a pandemic on March 11, 2020. Reasons for this may include lack of awareness of available virtual services, lack of access to equipment for virtual meetings as well as diminished access to ancillary services such as group therapy (e.g., Narcotics Anonymous).

### **Simple Tips for Surgeons and Health Care Practitioners**

There remain major challenges when addressing the management of patients with chronic pain during times of crisis. As highlighted during the recent COVID-19 pandemic, the draconian restrictions placed on opioid prescribing in an addiction setting as seen with methadone and buprenorphine are adapted during times of emergencies. The addiction practices governed by strict regulatory bodies have provided distinct recommendations to assist physicians in adapting their practices during the pandemic. Unfortunately, these recommendations are not paralleled for physicians managing chronic pain, and ultimately this onus is left to the clinical judgment of primary care prescribers, surgeons, and other medical professionals managing patients with pain.

### **S.A.F.E. Practices for Surgeons**

**Strategize:** Surgeons

should advocate with their national organizations for a detailed pain medication prescribing strategy during the COVID-19 pandemic to ensure consistent and safe prescribing patterns that are in the best interest of patients. This guidance may provide detailed instructions on how to safely adapt opioid prescribing patterns all the while ensuring physicians remain legally protected by their insuring, licensing, and regulatory bodies.<sup>(10)</sup> It should include guidance on how to safely lift some restrictions to narcotic prescribing and the quantity or refills that may be prescribed at once based on condition and patient risk.

**Assess:** Surgeons prescribing opioids should make an effort to learn to assess for high-risk behaviors and factors predisposing individuals to addictions, such as through the free Addiction Care and Treatment Online Course delivered by the University of British Columbia.<sup>(14)</sup> Surgeons prescribing opioids should regularly assess their patients for red flags in opioid use behavior. This may entail routine (e.g., bi-weekly) virtual assessments at baseline and follow-up of drug craving, substance use behaviours, and pain control using abbreviated validated tools, such as the Opioid Risk Tool.

**Find:** Surgeons prescribing opioids should pre-emptively search for and find resources available during the COVID-19 pandemic, to be able to refer their patients should

**OEInsights** More on page 20

**“...pain doctors are allowed to use their judgment—until a state medical board or the DEA decides that they can’t.”**

**VICE News**

**Maria Szalavi**

**March 24, 2020**

“We endure and more. And so we will thrive.”  
Felix Cheung,  
MD

**OEInsights** More from page 19 their virtual follow-up reveal behaviours concerning opioid misuse or developing dependence (e.g., local rapid assessment addiction medicine clinics).<sup>(10)</sup>

**Evaluate:** Surgeons should actively evaluate and re-evaluate their own biases. Patients should not feel penalized for their substance use disorders and should not feel abandoned by the healthcare system. Especially during times where access to medical services is limited, it is important we continue to support them as we bridge their care to appropriate services.<sup>(16)</sup>

### **Finding Answers, What’s Needed?**

The possibility of increased

opioid prescriptions post-trauma compounded by the decreased likelihood of patients seeking care for substance use disorders during COVID-19 may pose serious consequences on the health of our patients and economy. We need to urgently investigate trends in opioid prescription, as well as evaluate the impact COVID-19 has had on the management of opioid use disorders and how these may be overcome. While we aim to mitigate risk by conservatively managing trauma patients during the COVID-19 pandemic, we should not overlook the opioid epidemic and its deleterious consequences.

### **References**

**We endure** More from page 1 overdoses may have plateaued. Treatment centers are being funded. Drug companies, distributors, pharmacies and physicians who unscrupulously encouraged the addiction are being held to task. And our youth, rather than running away from the problem, have embraced the issues. They have seen their communities broken by this crisis, and they are ready to help rebuild.

This edition of our newsletter highlights the thoughts and actions of our high schoolers as they come to grips with the opioid crisis in their community. The recipient of the 2020 Josh Tuck Scholarship Award heartachingly describes her experience in Fairmont and rightfully places the

responsibility on our citizens not to denigrate the addict but to take action to stop the enablement. I am proud to be part of our Society helping her go to Fairmont State. It is people like her, fighting for solutions, that will not just help us endure but more.

And so we will thrive.



# The Rest of the Stories...

**Step up** More from page 7 from illegally using opioids. When our community initiates this change, I believe the rest of the state will follow suit and we can put a stop to opioid addiction.

**Perspective** More from page 2 being overrun, but as most can attest, hospitals are empty and are hemorrhaging cash. I feel that we were fortunate that we did not have to layoff anyone and that we were able to keep our doors open. Many businesses were not so lucky.

**Alternatives** More from page 10 the CDC, in 2021, more than 70,000 people died from a drug overdose, 68 percent of those involving an opioid. By providing education resources, alternative action to prevent production, and rehabilitation for addicted citizens, the use of opioids in my community could be significantly reduced.

**The path** More from page 12 To solve this problem, I would lower the dosage of opioids or get rid of them completely. I would not just hand the drugs out like candy every time someone is in pain. There are other medications including natural medications that can help someone get rid of pain.

**Help change** More from page 9 life. If someone is on the fast track to becoming addicted, they need to get help as soon as possible so the processes of building a better life is not as painful.

**Citizens** More from page 4 local Fairmont Community page. Why don't citizens do something? Why don't we call the police when we see something wrong? As a citizen, it should be our rightful duty to make sure our town, as well as citizens, are not in harm's way. This epidemic can be stopped, but only by the hands of citizens.

**First-hand** More from page 8 have drug addicted families. Now that school has been cancelled until further notice because of the Corona Virus, now is a better time than ever to help the families that suffer from drug addiction. Everyone in the community should do their best to step up and help all families that are plagued with addiction.

**Awareness** More from page 11 partnerships in order to fight the epidemic.

We cannot do this by ourselves and it is our responsibility to make sure we do not have to. It is our responsibility to come together and raise awareness. We can never do too much for the betterment of our fellow residents.

These are  
continuations of  
earlier essays.

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**Genetics** More from page 17

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