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Link: <https://www.facebook.com/generationzappedthemovie/videos/1315410981936506/>

Hello. I'm George Carlo and thank you for taking the time to join us today. I would also like to thank the Generation Zapped film producers for providing this forum for a critically important discussion. I am a health scientist who has been studying the effects of wireless technology for more than three decades. Over that time, I headed what remains the world's largest program examining wireless health effects and I now continue to work on defining and re-defining the scope of this ever-evolving problem and exploring all manner of appropriate solutions to it.

Two weeks ago, something very significant and unprecedented occurred that changes the game for all of us.

The World Health Organization defined "Gaming Disorder" as a medical diagnosis in the latest International Classification of Diseases -- the ICD-11. They include it under the category of addictive behaviors. The condition is what has also been referred to over the years as technology addiction, digital addiction, Internet addiction, cell phone addiction and screen addiction.

This decision by the World Health Organization represents the first time that any official diagnosis has been assigned to a condition that flows directly and unequivocally from the use of wireless technology. That the wireless industry, the health insurance industry -- who will now have to pay for detox treatments for the condition -- and the gaming industry pushed back in the process at WHO, means there had to have been overwhelming scientific and clinical evidence underscoring their decision to designate the diagnosis.

Here is the official ICD-11 diagnostic criteria:

"Gaming Disorder is characterized by a pattern of persistent or recurrent gaming behavior (digital gaming or video gaming), which may be online (i.e. over the Internet) or offline, manifested by: 1. impaired control over gaming (e.g. onset, frequency, intensity, duration, termination, context; 2. increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities, and 3. continuation or escalation of gaming despite the occurrence of negative consequences. The behavior pattern is of sufficient severity to result in significant impairment of personal, family, social, educational, occupational or other important areas of functioning. The pattern of gaming behavior may be continuous or episodic and recurrent. The gaming behavior and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all the diagnostic requirements are met and symptoms are severe."

While this is an important step forward for management of this condition, the size of the population at risk is ominous -- and it reaches into most all of our lives. Projections are estimating double-digit percentages of the population already effected.

Consider, for example, the growing global popularity of gaming and eSports across all demographics. eSports -- which is organized, team gaming -- is the fastest growing competitive sport in the world. There are now professional teams that play before spectators in filled arenas and on YouTube channels. There are college scholarships now granted for players -- both male and female. There are high school teams. And, there are groups now organizing competitive leagues for young people reaching down to pre-teens following the examples of Little League baseball, football, basketball and soccer. This is a wake-up call for parents, teachers, coaches, health care providers, government agencies, and all of those responsible for the wellbeing of our young people. This is an insidious problem that is growing day by day -- it's in our homes, schools, and places of business. It's sneaking up on us all.

The good news is that prevention is achievable. And there is hope for those already afflicted. But we don't have time to waste.

So, let's dig a little bit deeper into what really is happening in the neurophysiology of those with tech addictions. It is a multi-layered and complicated condition.

- For gamers and tech users overall, there is first a psycho-social aspect that is almost like an insidious 'gateway'. At first, it's the aspect of instant communication, playing and socializing. It starts out as a seemingly harmless set of interactions among friends, family and acquaintances. And it's fun. Most of us have been there.*
- Over time, the social draw part deteriorates and is no longer enough impetus for the participation. For gamers, the social aspect gives way to higher reward stimuli like 'winning' -- whether it's winning the game or gaining respect from competitors and teammates or other reward-based feedbacks. These 'reward loops' trigger release of 'feel good' chemicals like dopamine and oxytocin. This is the conversion step where the psycho-social aspect becomes physical and the cascade toward ever more 'feel good' can move into cruise control.*
- Once this conversion cascade happens and it becomes physical, the gaming stimulus becomes a 'stressor' that triggers biological response, and good health becomes dependent on who wins the race between 'stressor' and 'compensation' within the mind-body connection. This is a normal ongoing interplay within all of us. When 'compensation' outperforms the 'stressor', there is 'adaptation' and future impact of that 'stressor' is mitigated. This is how we functionally evolve. But, when the 'stressor' outperforms 'compensation', there is impairment -- or in this case a higher risk of devolving into addiction.*
- To make matters worse, when there are multiple environmental stressors in play -- competition stress, money problems, poor diet, lack of sleep, chemical exposure, medications, heat, illnesses, workplace hazards, and stress from the wireless technology the gamers rely on -- the 'compensation' part of the equation is impaired so the 'stressors' win.*

- *Most troubling is the localized gaming environment itself. When polarized waveforms like those man-made forms in wireless communication, interact with biological cells, tissues, and organs, their charges displace ions. This rogue displacement of ions triggers biological cascades that disrupt normal physiological structure and function.*
- *When physiology is disrupted, normal feedback loops that depend on intercellular communication are part of the disruption. That means that signals that are necessary to trigger things like immune response, avoidance reflexes, and other protective systems are compromised. Thus, the ability to compensate in real time to environmental stressors of any sort is lessened.*
- *When this happens, normal 'adaptation' doesn't occur and the addiction cascade ensues. This cascade includes the search for artificial compensators -- like stimulants, amphetamines, stress meds, pain meds, and recreational drugs. In those on this path to addiction, the artificial compensation cascades eventually take over and life is in a very precarious place.*
- *One point of clarity. It is not accurate to 'blame' the individual, relegating the condition to 'bad choices' as we so often do with other addictive behaviors. This one is different, and I do believe that the term 'addiction' itself is a bit pejorative in this regard. When the cascade becomes physical, it is far more than behavioral -- it is a complex physiological, environmental illness with underlying pathology that leads to severe functional impairment and worse. It's good that this is now defined as a diagnosis by the WHO for the purpose of facilitating medical intervention. But there is more to the story than treatment. Prevention is going to be the longer-term key.*

Knowing what we know, it is incumbent upon us to act. And I want to share with some programs underway that will help empower us to mitigate this problem.

First, to solve any problem of this magnitude, public awareness is the first need. The film Generation Zapped provides a wonderfully concise overview of the wireless health effects problem, including tech addiction. World-class experts like Dr. Victoria Dunckley, featured in the film and whose book "Reset Your Child's Brain" is a must read for parents. She and other experts take the complexities and put them in words that we all can understand. By the way, the Generation Zapped DVD has 45 mins of extended interviews including a segment by Dr. Dunckley on screen addiction. The film is a huge contribution to public health. I suggest you buy it. Show it to friends, family and colleagues. Give it as gifts. Challenge the skeptics with it. Show it to decision makers and influencers in your circles. That is the most important first step toward mitigating the effects in your own life and solving the larger problem.

Second, some of my colleagues in Austria, Germany, France, Greece, Sweden, Canada and here in the U.S. are in the process of forming a Digital Detox Association whose purpose will be the evaluation of protocols and tools for prevention and treatment of digital addiction that are evidence-based and that work.

There are far too many products in the marketplace that claim vast protection against wireless signals that simply don't work or don't make sense scientifically. While some of these work, those that are gimmicks -- and some of them are -- not only exploit people seeking help, but they are dangerous if they engender false senses of security. It's important to sort out the good from the bad.

The same is true for the digital detox programs that are now popping up across the world. These treatment centers are expensive -- sometimes running fifteen to twenty thousand dollars per month out of pocket -- and there are presently no gatekeepers to make sure the protocols being applied actually work. This new association of ours will evaluate products and protocols based on the science, and make those evaluations public so those seeking help can have a marker of evidence-based reliability. Any of you who are practitioners and are interested in helping us with this work, please send an e-mail to me at preventaddiction2018@gmail.com. We will come back to you.

Third, we have a prevention pilot program underway where we are studying different lifestyle modification protocols that minimize exposure to environmental stressors while at the same time increase adaptive capacity. For esports and other athletes who might want to participate, there is an application process available through the Secrets of Champions Foundation. The website is: www.foundationofchampions.org. For others who might want to participate, the application process is available through www.adaptationproject.org. We can help each other.

At this stage, we are at a crossroads. The World Health Organization with their diagnosis of Gaming Disorder has sounded a serious alarm. It is up to us to listen and let's fix it.

One more reminder. The Generation Zapped film is available on DVD and Digital beginning next Tuesday, July 10th. You can go to the website www.generationzapped.com to find a screening near you or buy the DVD. The film is also available to stream on iTunes, Amazon, Google play, Vudu, Stream, and XBox. And, it goes without saying that we recommend a hardwired device for streaming.

Thank you again for your time.