

Whenever a lull in activity occurs, the first thing many of us do is reach into our pocket, or purse, or backpack for our phones. That instance of space and time is practically riddled with more anxiety than the act of being free from obligation if only for a one second.

If you find yourself doubting this, take a look around you. Whether you're walking down a busy sidewalk, sitting in public transportation, or maybe even out to dinner with friends, take note of those who have lost the battle to their phones. So why are we so drawn to our cell phones and how does this affect us in the present and in the future?

WHO USES CELL PHONES?

It's important to briefly note the evolution of cell phones and their importance throughout the years. Originally cell phones closely resembled bricks, hardly what we picture today. For a long time through their evolution, cell phones were mainly for working individuals. This however has drastically changed in recent years. Cell phones are now much less of a luxury and more so another consumer item that is popular amongst all ages. Even infants have a difficult time resisting the popular games and videos of phones. With this change in audience, there has been a dramatic shift in what phones are used for. They have taken new shape in the form of calendars, photo albums, GPS, and the list goes on. It is thus to no surprise that as the audience and technology grows rapidly, as does the dependency to these devices.

get a hit of dopamine when their phones beep or ring

People's brains

WHAT ARE THEY USED FOR?

Cell phones, especially smartphones, are an incredibly useful tool in the modern age. It's a tool with an abundance of functions, while still being able to fit in a pocket. They are an instant connection to nearly everyone—important or

not—in someone's life. Cell phones are a communication goldmine—voice calling, video calling, texting, and emailing. And with social media, there are even more ways of communicating, and it can all be done in the palm of one's hand. With cell phone web access a question can be answered immediately, and satellite maps can get someone where they need to go. Phones can also be used as relaxation or boredom killers through music and games. The features of cell phones are practically endless and they make life a lot easier for people.

Unfortunately, the beauty of everything being in one place also means they are too easy to get addicted to. It has been shown that people's brains get a hit of dopamine, a chemical linked to happiness, when their phones beep or ring. But why are they so addictive? With everything at the palm of one's hand, gratification requires little effort and is instantaneous. With a couple clicks people can go from beating a level on their favorite game to keeping updated on their friend's life to sending a work email. Because people are so used to the instant gratification of a cell phone, when they don't get that in real life, they become impatient. Upon even the slightest amount of boredom, many reach for their cell phone to provide entertainment. Sitting on public transportation, waiting for food to be prepared, even during a lull in conversation it is too easy to pull out a cell phone and have something to do. Cell phones are an easy distraction and there is a difference between needing to be on a phone and wanting to. And too much phone use has negative health effects.

SOCIAL HEALTH EFFECTS

Assessing the social issues paired with phone usage is one that is particularly interesting and worth mentioning especially for today's users. It is not rare to find articles warning the potential social and psychological dangers of phone use. A *Washington Times* article questions the role of cell phones in what experts call the "Narcissist generation," where the "cell and text addiction feeds

the misplaced sense of self-importance." What is at the forefront even more so in terms of the social effects of cell phone use is the disconnection of social connectivity that used to be a major part of the human social life. Though many argue that technology is the key to maintaining social connectivity, this social connectivity lacks genuine and healthy face-to-face human interaction. In short, cell phones have changed interaction. Not only is more interaction happening through text messages and social media platforms, instances for genuine human interaction are being lost. Public transportation for instance was once a hub for social interaction and connections with strangers, it is now often an opportunity to check Instagram posts or Pinterest DIY's.

Even at the dinner table, as Helen Le Lin states in Scientific American, "Nowadays, it's not unusual to have one's phone handy on the table, easily within reach for looking up movie times, checking e-mails, showing off photos, or taking a call or two." In fact, in a study by Andrew K. Przybylski and Netta Weinstein from the University of Essex, found that even having a phone nearby can be detrimental to a relationship. The study suggests that the presence of a cell phone could give the idea that the owner has a broader network of connections and is not committed or interested in the present relationship with the person they are communicating with at the time.

Additionally, cell phones allow for antisocial behavior. When met with a socially stressful situation, phones create a simple outlet. In a sense, they allow those with social anxiety to bury themselves in a screen rather than having to deal with the perils of social interaction. This can be seen as a benefit but it is also important to note the "behind the screen" affects of cell phone use on social anxiety. In fact, in research done by Marlene Busko individuals self reported cell phone use and anxiety. The results' significant correlations were made between social anxiety and cell phone dependence.

PHYSICAL HEALTH EFFECTS

As the ongoing trend of the usage of smartphones escalates, so does the health problems regarding the over usage of phones. In recent studies, physical health problems have occurred creating new health terms such as "Digital Strain" and "Text Neck" where these problems didn't exist 10 or so years ago. It has been a concern for the younger generation who grew up with these smartphones that problems such as digital strain, text neck and even spinal damage can affect them in the future.

It has always been told by one's parents to not sit so close to the TV. Sitting too close to the screen can be damaging to the eyes from the bright lights and mix of colorful pixels that can cause one's eyes to strain. This concept is similar to the smartphone, but now the TVs are at the palms of the user's hand. "Digital Eye Strain" contains symptoms such as irritated eyes, fatigue, eyestrain, blurry vision, problems focusing,

headaches, neck and shoulder pain, as well as binocular vision problems. Also because of the high concentration of light in a small screen it could also lead to age-related macular degeneration, which leads to vision loss. With these dangers, eye strain becomes a growing concern as more and more people use smartphones. Although small dosages of using your phone while waiting seem harmless, it adds up to hours and hours of screen time throughout the day. "Digital Eye Strain" may be a new health concern, and could really affect people's vision in the future.

Another health concern is "Text Neck." Text neck is a coined term that relates to the problems of your neck and posture because of the weight of one's head when facing downward. Often, people look at their phones in a downward fashion, creating more tension and strain on their neck. According to recent studies, a person's head could weigh about 27 lbs when the head is positioned at a 30-degree angle. This extra weight on one's neck can lead to spinal and posture problems in the future, as the added weight is accumulated through one's lifetime. Text neck can lead to arthritis in the neck, upper back pain, and even affect the nerves from one's neck to their arm. It has become more known to the public about the health effects of text neck, and it has been suggested to raise one's phone at eye level, and also be hyper aware of one's posture when using their phone, so that these symptoms can be avoided as much as possible.

Moving down from the eyes, to the

neck, and now to the major bone in a human's body, the spinal cord. The spine is the structure of one's back, and with cell phone usage with one's body in an awkward angle, the external stress on the spine could lead to bad posture. It would appear, in the rules of evolution, that if humans continue this pattern, they will soon have hunched backs because of the excessive usage of phones. Spinal stress can cause spinal misalignment, and affect a person's nervous system. With the problems of one's nervous system, it could lead to abnormal functions of the human body. Spinal problems have the potential to be the worst symptom of overusage of phones.

Of course, many of these problems occur over a longer span of time, but it's a concern that should be understood now. Becoming more aware of one's posture, as well as monitoring one's phone usage could lead to better health benefits in the future. The smartphone is powerful in knowledge, but it is also powerful in the physical damages to one's body. The eyes, the neck and spine are important parts of the overall function of the human body, and should be taken and handled with care. As more health research about the physical strains of phone usage appears, there can be more steps to preventing health problems in the future, while still enjoying the wonders of the smartphone.

WHAT NOW?

Phones have become an important part of day-to-day life, and it is understandable that people cannot just stop using cell phones completely. However, it is important to understand what overusing a cell phone can mean in the present and in the future, as it can have both social and physical health problems. A step in the right direction is recognizing the issue and becoming aware of how much you use your phone. Are you using it because you absolutely need to? If the answer is no, try to put it away and experience and appreciate what is happening around you. Make this a healthy habit and encourage others to do the same.

Tips to Use Your Phone Less

There are many ways you can reduce your phone use in your everyday life.

- Turn off your phone or put it in another room when you are in an environment in which your phone might be a negative distraction.
- 2 Try to strike up a conversation with someone on public transportation or when you are waiting in line. If this isn't for you, bring a book or magazine with you for these times.
- If you're out to dinner with others, have everyone put away their phone or place it in the middle of the table so everyone can be held accountable. If someone uses their phone, make them pay the bill!
- 4 Turn off your phone notifications as often as possible.
- Don't go on your phone before bed (or on any screen for that matter). This will prepare your mind for rest and you will likely sleep better. Additionally, don't use your phone as an alarm clock so it isn't the first thing you interact with in the morning.
- Ottilize existing phone applications that give you redeemable points for not using your phone.
- Consciously think of your phone use. When you feel the urge to pull out your phone, try to think of alternative ways to spend that time. People watch, notice things you normally don't, and enjoy the environment around you.

www.washington times.com/news/2014/dec/31/cell-phones-promote-serious-social-psychological-i/www.scientificamerican.com/article/how-your-cell-phone-hurts-your-relationships/www.medscape.com/viewarticle/571204

 $www.huffing to npost.com/deborah-hersman/cell-phones-a-potentially_b_7161074.html\\ www.cnn.com/2014/11/25/living/10-signs-smartphone-addiction-digital-life/$

archive.boston.com/lifestyle/specials/2013/02/01/the-growing-culture-impatience-where-instant-gratification-makes-crave-more-instant-gratification/eu5SPWCVTmFp9Nm6dUndhP/story.html www.breezejmu.org/life/overusing-cell-phones-can-lead-to-physical-and-mental-ailments/article_843f9600-ee80-11e4-a818-73ae3c593528.html

www.spineuniverse.com/wellness/ergonomics/your-cell-phone-killing-your-back www.spine-health.com/blog/modern-spine-ailment-text-neck

www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/ www.prnewswire.com/news-releases/posture-perfect---smartphone-use-affects-spinal-health-300039220.html

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