

# A Review: Effects of mobile phone on human health

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**Abstract:** Seeing peoples with cell phones is a common occurrence these days And spending so much time on their devices. For a bit more information, I decided to study the harmful effects of mobile phones on human being. So, what are the harmful effects of mobile phones on humans? Mobile phones have plenty of harmful effects on humans, ranging from physical to mental. Radio wave radiation is one of the biggest causes for concern, along with the mental health impacts of social media. Similarly, there are other harmful effects, such as stress and sleep loss. In this review article, I look at the harmful effects of mobile phone use on human health, along with ways to minimize their risks.

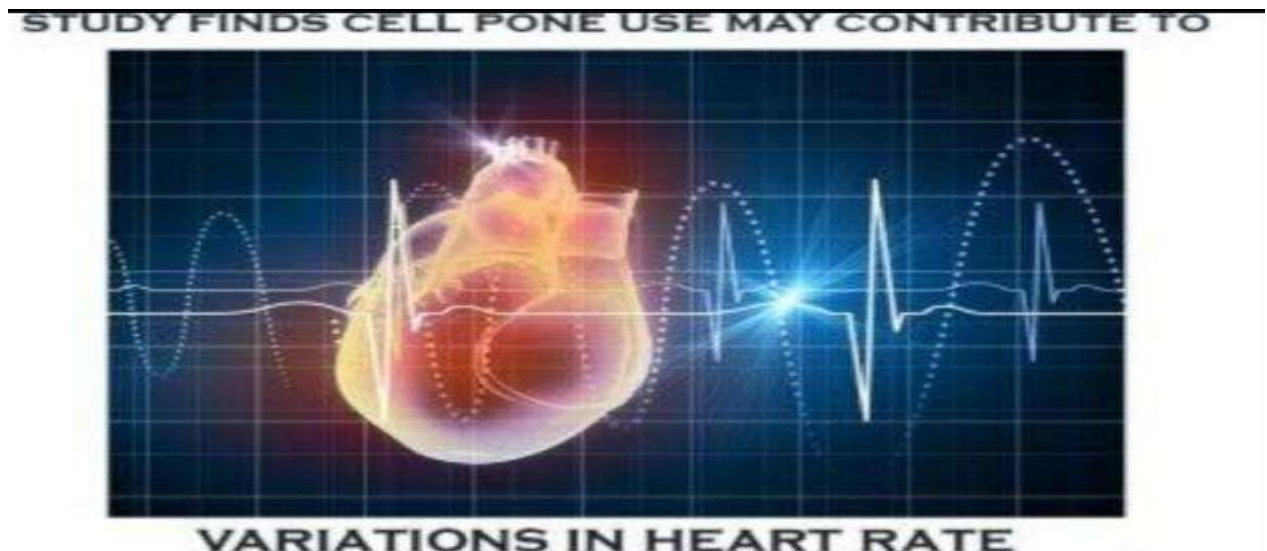
## Introduction:

Today, it is estimated that more than 5 billion people have mobile devices, Although the mobile phone makes our life smooth but it has many evil effects also. The smart phone or the mobile phone might be affecting one's thought process, behavior and attitudes in a more negative and faster way. It does that so finely and secretly that it becomes difficult to identify and cope up with. It is not an exaggeration to say that smart phones have the power to influence most important decision making processes and choices. It changes personality, it changes the behavior of a person. Smart Phone addiction is a well-recognized condition, known to cause trauma and high level anxiety pains. Addiction to remain online, compulsion to be active on social sites leads to low productivity and impacts the emotional health of the person. Constantly looking for something interesting on web, social sites and games inhibits ones emotional ability to focus on one topic for long. It has been already proved that long hours of gaming makes anyone impatient, addicted and unproductive. Long time effects may be worse, permanent and affecting the more subconscious layer of behavior. So the suggestion is to keep phone away for a while and enjoy all the other good things life has to offer.

## Effect of mobile phone on human health



1. A study by the National Institutes of Health in the US suggests that mobile phones could have an effect on the brain. They reported higher sugar use in the brain, a sign of increased activity, after 50 minutes on the phone.
2. People who talk on the phone for several hours a day are 50% more likely to develop brain cancer. The reason for this is the radio waves produced by mobile phones. It is calculated, that every minute the human brain receives about 220 electromagnetic impulses, which are not necessarily harmful, but which definitely affect the brain in cases of prolonged impact. Recent studies report two types of brain cancer may occur – glioma and acoustic neuroma. Apart from cancer risk, mobile phones influence our nervous system.
3. The cellphone directly evokes feelings of connectivity to others, thereby fulfilling the basic human need to belong." This results in reducing one's desire to connect with others or to engage in empathic and prosocial behavior.
4. Young people who are hooked on their smartphones may be at an increased risk for depression and loneliness,
5. If you're never without your smartphone, you may be missing out on a more peaceful, fulfilling life. "Both the content on your phone and the act of checking it frequently can trigger a stress response, which releases cortisol into the body,"
6. Adolescents use cell phones at night, which leads to insomnia. And insomnia ultimately results in depression, anxiety, and depression.



1. Some people using mobile phone experience
2. heart arrhythmia
3. heart palpitations
4. Heart flutter, or rapid heartbeat.

#### Effect of mobile phone on eye



The wavelength of wireless signals (which is about 2 to 2.5 cm) used for cell phones and other wireless terminals matches with that received by the human eye. The dielectric constant (absorption capacity) of eye tissues is around 70 which is greater than unity (above 50). This means that the eye can absorb electromagnetic energy very quickly,”

a mobile handset should be kept as far as possible from the eye. “It should not be used more than is necessary.

“The problem is not that the eye absorbs the energy, but that the heat absorbed by the eye does not get transmitted or radiated out of the body,” the prolonged usage of cell phones can affect retina, sclera, lens, cornea as well as vitreous humour which are parts of the human eye.

Texting and playing games on mobile phones is also harmful for eyes. Regarding games it also worth mentioning, that sometimes they cause irritability and aggressiveness, especially among children and teenagers.

## Effect of mobile phone on other body parts



Cell phones having harmful effects on the male reproductive system, so men should not carry phones in the pockets of their trousers.

Cell phone use exceeding 60 minutes per day could result in lasting damage such as high-frequency hearing loss. When mobile phones are used very close to some medical devices (including pacemakers, implantable defibrillators, and certain hearing aids) there is the possibility of causing interference with their operation. An increased risk of traffic accidents, about 3–4 times greater chance of an accident, when mobile phones (either handheld or with a “hands-free” kit) are used while driving due to distraction. Children have the potential to be at greater risk than adults for developing brain cancer from cell phones. Their nervous systems are still developing and therefore more vulnerable to factors that may cause cancer. Heavy smartphone use may produce considerable stresses on the cervical spine, thus changing the cervical curve and pain threshold of the muscles around the neck. Bending over your phone while texting can cause significant stress on your spine, which could theoretically cause damage that would eventually require surgeries.

#### Tips to protect yourself from cell phone radiation:

##### 1. Avoid Body Contact

Carry the phone away from the body.

##### 2. Switch Sides of Head When Talking

Switch sides regularly during a cell phone call to reduce radiation exposure to just one side of your head. Most of us use the same hand all the time to hold the phone when we talk. Try to switch to your other hand and it will help so that one side of your head doesn't always get all the radiation.

##### 3. Text More

Whenever possible, text rather than talk. When texting your phone will be likely held in your hand and further from your body. This distance creates a much larger buffer between you and the powerful near field radiation from the phone.

##### 4. Use Speaker Mode or a Wired Headset

If a call must be made, use the speakerphone or a wired headset. When holding the phone against your head for a call you are increasing the amount of radiation your head will be absorbing. Near field radiation from the phone is most concerning when the phone is against your body. The speaker or wired headsets reduce the amount of near field radiation you are exposed to.

##### 5. Shorter Calls

Limit the length of your cell phone conversations. This one is simple math. Less time talking with a phone against your head equals less radiation going into your body. Use a corded landline phone if available. Do not use a cordless phone for long conversations.

##### 6. Limit Kids Cell Phone Use Time

Children should only use cell phones for emergencies or strictly in speaker mode at a safe distance. A child's body is still developing and cell phone radiation penetrates a child's brain more deeply than an adult brain. so keep mobiles away from child



**7. Avoid Use When Low Signal**

Avoid using your cell phone when the signal is weak or when moving at high speed, such as in a car or train. These scenarios cause mobile phones to increase their transmitting power in an attempt to connect to the nearest cell tower. You get more radiation and your battery drains faster under these conditions.

Find a stronger signal area when talking and stay put while talking.

**8. Wait For Call Connection**

When making a call, wait for the call to connect before placing the phone next to the ear. The phone emits the most intense radiation during the initial connection, then lowers its power once a connection is established. A couple extra seconds will go a long ways here.

**9. Be Careful About “Shielding” Products**

Follow FTC advice to avoid using products on your cell phone that claim to “shield” cell phone emissions, because they may interfere with the phone’s signal. This may cause it to draw even more power and possibly emit more radiation as it is working harder to communicate.

**10. Use Airplane Mode**

Turn your cell phone off or put it in airplane mode when not in use. If you must leave your cell phone on at night, keep your cell phone away from your head and body while you are sleeping. Your phone continues to emit radiation even when you are not making a call.

**Conclusion:** now a days seeing peoples spending so much time on cell phones. Especially students due to pandemic condition but all of us know very well cell phones contribute lots of harmful effect on a student mental and social health so we must use cellphone in a proper way and minimize the hazardous effect of cellphone on our health.

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