

# [Example of do mobile phones cause cancer research paper](https://assignbuster.com/example-of-do-mobile-phones-cause-cancer-research-paper/)

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## Introduction

The recent years have seen an unmitigated growth in technology. Advances in technology have been so rapid and fast paced that scientific and medical studies on their possible effects on human beings have failed to keep track with it. Mobile phones is one such technology that has revolutionised the telecommunications industry. With declining prices, more coverage area and added benefits such as internet usage on the go, mobile phones have become quite ubiquitous. As with every technology however concerns were raised about the risk posed by the electro magnetic radiations from the mobile phones. Many studies have been conducted to analyze the correlation between increased mobile phone usage and the possibility of it causing cancer. The results have been inconclusive as the technology is recent, has been changing and there are too many other factors that have to be computed in before coming to a conclusion. The research is also vulnerable to bias as most research studies are funded by the mobile phone companies themselves. Hence as of date there have not been any conclusive evidence that states that mobile phone usage could cause cancer.

## Aims and Objectives

The purpose and aim of this study is to analyze the correlation between mobile phone usage and an increased risk of cancer among the users. Mobile phone technology is comparatively recent and has been constantly changing and for any scientific research to be taken seriously, they have to be reliable and relevant. It is the reliability and the relevance of the studies which has caused doubts about the veracity of studies linking increased mobile phone usage to cancer. The objectives of the study are thus to research   
the technology used in mobile phones   
the damaging effects it has on human beings   
the possibility of causing cancer   
the kind of studies that have been conducted on this topic- scientific, medical and governmental studies   
possible bias in the study and   
reasons for the lack of any conclusive results from the studies   
It is also important to conduct an in-depth and comparative study of the research that has been carried out in this field so far as the affiliation of the authors of the study and research, the source of funding for the research, inherent bias and research material all play a part in the veracity of the study. A comparative study of the literature available on this topic would also lead to an understanding of the advancement in mobile phone technology as well as the status of studies on use of mobile phones and cancer.

## Literature Review

Mobile phone usage have increased manifold since it was introduced in the market in the mid-eighties. When it was launched the cost was prohibitive, the instrument alone cost over 4000 dollars and the charges to use it exorbitant. But it changed over the ears and from a few hundreds who used it in the beginning, mobile phone usage have reached billions. The number of people estimated to be using mobile phones have reached 5 billion, with the numbers only set to rise in the coming years. This has led to many studies and research being conducted on the possible damages it can cause to human beings. Khurana et al (2008) conducted a study on the use of mobile phones, the low intensity electromagnetic radiation it emits and the possibility that it causes or at least risks the increase of brain tumors in adults using it for more than ten years. The authors have concluded that there is a chance of developing ipsilateral brain tumor after prolonged mobile phone usage. The results however depend on the participants talking over the phone using the same side for over a decade. Capriotti (2002) explores the possibility of mobile phone technology causing tumors and explores the possibility of mobile phone litigation in the future. Although the case studies she mentions show a possible link, a decade later no concrete evidence has still linked increased mobile phone usage to the development of tumor cells. There have been so far a tenuous link and nothing conclusive has been proven. Kwan and Hamolainen’s (2011) work on the effects of mobile phone radiation on human brain cells and body have stated that the damaging effects mentioned in the other studies are not very conclusive and that the tumors and other purported damages could have been caused by multiple factors. They however have not completely ignored the possible damages but call for a more detailed and comprehensive study on the topic as it can have far reaching implications on human and environmental health. There have also been multiple studies that study the link between mobile phone usage and cancer risks in humans. These studies are sponsored by the governments of the United States and many european countries. SEER- Surveillance, Epidemiology and End Result is a program of the United States government and the national cancer institute. Based on their data collected on the incidence of cancer in the United States and high mobile phone usage, it was found that increased usage did not directly correlate to a higher rate of cancer. COSMOS- International Cohort Study on Mobile Phone users is a study conducted by many european countries. This however is a long term ongoing study as over 300, 000 participants have to be studied over a period of 20-25 years to have reliable results. MOBI-KIDS is another european study that aims to find the link between the radioactivity emitted by mobile phones in young people. This is an ongoing study and the results are yet to be published. Although there has not been any consistent reporting or results to find a concrete link between mobile phone usage and cancer risks in people, many governments have asked the industry to come up with safe practices. There is also a plethora of research that aim to show the possible link between mobile phone usage and cancer. The IARC’s interphone study and Hardell et al study on mobile usage and cancer risk is what has caused the confusion about the possibility of cancer risk in humans.

## Research Methodology

The research begins with the premise that there have not been any conclusive and concrete results about the possibility of cancer and tumor development in humans due to the increased use of mobile phones. Hence a lot of research is based on a study of already available information on the research on this topic. A triangulation approach has been used to analyze the information available and arrive at a conclusion and both qualitative and quantitative analysis has been used. A search of libraries and online databases were essential aspects of the study and the terms that were used to find related materials were “ EMF”, “ Mobile Phone technology”, “ Cancer”, “ Health risks from mobile phones”, “ Electromagnetic field” , radioactivity and “ government research on mobile phone usage and cancer”. Material was collected from scientific journals and publications, peer reviewed journals, magazine articles and government published studies on the topic. Although newspaper articles was used, the information from them was not used much. Online databases that was useful in the study and that could further help in the research were JSTOR, ScienceDirect, PubMed and Oxford Journals. Data collection is to be based on four basic topics which includes the changing nature of mobile phone technology, scientific study since the late nineties on the effects of mobile usage and cancer, studies that showed conclusive and inconclusive results on the topic and finally the different background of the research studies. The last category was further divided into studies that were sponsored by the mobile phone companies, studies that were sponsored by hospitals and studies that were sponsored by government agencies. Interviews with scientists, doctors and general public are not part of the material collection as answers from them would be inconclusive and the data collected would be an opinion that would not be relevant to the study. Since there has been no conclusive evidence yet on the correlation of mobile phone usage and cancer, it will only serve to increase the doubts about the claims. Various websites have also been used to get hold of a definite number of mobile phone usage based on race, age and geography.

## Conclusion

The phenomenal growth in mobile phone technology and the rise in the number of people using it on a daily basis has led to concerns among many sections of the population about the safety of talking on the phone for long. Although studies to find the correlation of mobile phone technology and cancer were started as early as the late nineties and have been continued to this date, there have been no concrete evidence that suggests increased mobile phone usage causes cancer. This is not to say that constant use of mobile phones is safe. It is true that mobile phones emit low levels of radioactive waves that can cause damage with prolonged exposure. But there has been no conclusive results on whether these waves can actually cause cancer in human beings. Thus the current state is that research has not caught up with the speed of technology and it would take many more years before any reliable and concrete evidence could be shown between cancer and the use of mobile phones.

## Works Cited

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