

# Animals in Clinical Trials: The Ethics and Benefits of Animal Testing in Medical Research

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## Commentary

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## DESCRIPTION

Animal experiments in the medical field study has always been an emotive issue. While some consider it necessary for scientific and medical advancement, others view it as unethical and inhumane. Animal testing has been used for decades to test the safety and efficacy of drugs and medical devices before they are approved for human use. Animals such as rats, mice, dogs, and primates are often used in these tests. In this article, we will explore the ethics and benefits of animal testing in medical research. The use of animals in medical research has been a topic of debate for decades. Animal rights activists argue that animal testing is cruel, inhumane, and unnecessary. They believe that animals should not be used for human purposes and that there are alternative methods available. On the other hand, supporters of animal testing argue that it is necessary for scientific and medical advancement. They believe that animal testing is a crucial step in developing new drugs and medical devices that can save human lives. Animal testing is regulated by strict ethical guidelines that ensure the welfare of the animals involved. These guidelines include the use of anesthesia to minimize pain and suffering, the use of the fewest number of animals possible, and the use of alternative methods when available. Animal researchers are also required to receive training in animal care and welfare.

### **Benefits of animal testing in medical research**

Despite controversies surrounding it, animal testing has produced a number of significant medical advances. The invention of medicines and medical equipment that has saved countless human lives has been made possible thanks in large part to animal experiments. For example, animal testing was crucial in the development of insulin for the treatment of diabetes, vaccines for polio and measles, and drugs for cancer, HIV/AIDS, and heart disease. Animal testing is also essential in understanding the mechanisms of diseases and how they affect the body. By studying the effects of diseases on animals, researchers can gain a better understanding of how these diseases affect humans. This knowledge can lead to the development of new treatments and cures for diseases.

### **Alternative methods to animal testing**

While animal testing is necessary for scientific and medical advancement, there are alternative methods available. These methods include *in vitro* testing, computer modeling, and human clinical trials. *In vitro* testing involves testing drugs and medical devices on cells in a laboratory. Computer modeling involves using mathematical models to simulate the effects of drugs and medical devices on the human body. Human clinical trials involve testing drugs and medical devices on human volunteers. While these alternative methods are useful, they are not always reliable. The complexity of the human body cannot be replicated by *in vitro* testing or computer modelling, and human clinical trials can be costly and harmful. Before medications and medical devices are licenced for use in humans, testing on animals is still required to verify their safety and effectiveness.

### **CONCLUSION**

Testing on animals has always been a contentious issue in clinical research. While some consider it inappropriate and barbaric, others see it as essential for the growth of science and medicine. Animal testing is crucial in the development of pharmaceuticals and medical technologies that can save human lives and has resulted in numerous medical advances. Animal testing is still required to verify the safety and effectiveness of medications and medical equipment before they are approved for use in humans, despite the existence of alternative techniques.