

Research worse than
if they were given



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Research on animals is important in understanding diseases and developing ways to prevent them. The polio vaccine, kidney transplants, and heart surgery techniques have all been developed with the help of animal research.

Through increased efforts by the scientific community, effective treatments for diabetes, diphtheria, and other diseases have been developed with animal testing. Animal research has brought a dramatic progress into medicine. With the help of animal research, smallpox has been wiped out worldwide.

Micro-surgery to reattach hearts, lungs, and other transplants are all possible because of animal research. Since the turn of the century, animal research has helped increase our life-span by nearly 28 years. And now, animal research is leading to dramatic progress against AIDS and Alzheimer's disease. Working with animals in research is necessary. Scientists need to test medical treatments for effectiveness and test new drugs for safety before beginning human testing. Small animals, usually rats, are used to determine the possible side effects of new drugs.

After animal tests have proven the safety of new drugs, patients asked to participate in further studies can be assured that they may fare better, and will not do worse than if they were given standard treatment or no treatment. New surgical techniques first must be carefully developed and tested in living, breathing, whole organ systems with pulmonary and circulatory systems much like ours. The doctors who perform today's delicate cardiac, ear, eye, pulmonary and brain surgeries, as well as doctors in training, must develop the necessary skills before patients' lives are

entrusted to their care. Neither computer models, cell cultures, nor artificial substances can simulate flesh, muscle, blood, and organs like the ones in live animals. There is no alternative to animal research. Living systems are complex. The nervous system, blood and brain chemistry, and gland secretions are all interrelated. It is impossible to explore, explain or predict the course of many diseases or the effects of many treatments without observing and testing the entire living system.

Cell and tissue cultures, often suggested as “alternatives” to using animals, have been used in medical research for many years. But these are only isolated tests. And isolated tests will yield only isolated results, which may bear little relation to a whole living system. Scientists do not yet know enough about living systems or diseases, nor does the technology exist, to replicate one on a computer. The information required to build a true computer model in the future will be based on data drawn from today's animal studies. Primates represent only about 1/3 of 1 percent of animals in research.

But during the last half century, research using primates has led to major medical breakthroughs, most notably in the treatment of polio and Rh disease. Vaccines have reduced the cases of polio in the U. S. from 58,000 to one or two a year at present. Scientists are learning how the Human Immunodeficiency Virus (HIV) works by studying its non-human primate counterpart, the Simian Immunodeficiency Virus (SIV) in monkeys.

The SIV model is useful in testing drugs for AIDS. In addition, the HIV virus survives in certain kinds of monkeys and although it does not kill the

animals, it can be removed from them. This may prove useful in testing an AIDS vaccine. Researchers are studying rhesus macaque monkeys to explore ways to reduce multiple organ failure following hypotensive shock, a loss of blood pressure due to loss of blood. Researchers have hypothesized that damage to the organs occur within the first few minutes after blood flow is reestablished, when a certain kind of white blood cell attaches to walls of blood vessels and releases toxic substances. The researchers reasoned that if, just before blood flow is reestablished, a substance that prevents the white blood cells from attaching to the vessel walls were injected into the blood stream, it might prevent the release of their toxic contents and avoid multiple organ damage.

It is expected that this new technique will prove effective in human patients. Researchers are studying obesity in monkeys in hopes of finding away to control body weight. Scientist are also using monkeys to study Taurine deficiency, which causes vision problems, and zinc deficiency, which causes growth retardation among infants and fetuses. Researchers are currently studying to see whether reduced caloric intake can slow the rate of aging.

This effect has already been observed in lower animals, and if it holds true in primates, it would be a strong indication that humans might be able to increase their life spans by eating less. Primates have the same number and relative size of teeth as humans. Macaque monkeys have been studied by dental researchers to link a specific bacterium to the growth of periodontitis, which affects 75 percent of all adults and causes 70 percent of adult tooth loss. A non-steroidal, anti-inflammatory drug, flurbiprofen, has been shown to be effective in halting the progression of periodontal disease. Since the <https://assignbuster.com/research-worse-than-if-they-were-given/>

1920s, scientists have studied primates in order to understand their ability to communicate. They have discovered that chimpanzees and other apes have the ability to learn and use language.

Scientists already have applied their findings toward developing a special language for severely mentally retarded children, as well as young adults with little or no linguistic competence, who cannot learn language as normal children do. People should ensure that an end is not put to progress in animal research. Biomedical researchers know that an animal in distress is simply not a good research subject. Researchers are embarked on an effort to alleviate misery, not cause it. And remember, if we want to defeat the killer diseases that still confront us, such as AIDS and Alzheimer's, cancer, heart disease, and many others, the misguided fanatics of the animal-rights movement must be stopped.

Think about it, it could some day be your life or your children's.