

Reader's Forum

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ANIMAL TESTING

"The greatness of a nation and its moral progress can be judged by the way its animals are treated."

-Mahatma Gandhi

There is a lot of debate going on around the globe whether animals should be used as an object of experimentation.

Animal testing is a scientific experiment where animals are used as subjects to test whether the products whether it be cosmetics, medicines or any other toxic chemicals, are safe for human use or not.

Considering that animal testing is a debatable topic, let's evaluate the statements in favor and against the animal testing.

People supporting animal testing considers human life superior to animals and therefore, believe that harmful products should be tested on animals before using them on human beings to save human lives. One of the statements supporting animal testing justifies that animals have a complex system and therefore, when products are tested on them, the results are more reliable as compared to the alternatives that offer simplicity. A reasonable justification is acceptable in cases where there are insufficient alternatives. As in the field of Endodontology, it becomes essential to conduct animal experiments due to the lack of alternatives available for animal testing. One of the interesting justifications to animal testing is that it is beneficial for not only human beings but also for animals preventing their death due to diseases like rabies, leukemia, etc. Vivisection has also played a significant role as it had protected endangered species from getting extinct such as the black-rooted ferret and the California condor.

Now, let's get to understand the viewpoint of people against animal testing. One of the major concerns of animal testing is the safety of animals. Millions of cats, dogs, rabbits, mice, etc. are captivated in different labs around the globe to be used for research. They emaciate due to pain, experience exasperation and aches with loneliness longing for freedom from the captivity.

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One of the statements justifying animal testing says that animals prove to be a reliable subject to test results. But this is a myth. A human being's structure is quite different from that of a 70kg mouse. This fact is proven in 2013 in the Archives of Toxicology which very clearly stated that since there is no direct comparison between human beings and mouse, the results are unreliable.

There have been instances where animal testing proves that the substance is safe for use by human beings but in reality it isn't.

Example : When thalidomide, a sleeping pill was tested on pregnant mice, rats and guinea pigs, the test proved it to be absolutely safe and no deformities were found in the new born except when given high dosage. But when pregnant mothers consumed this pill, it resulted in the born of babies with deformities. This pill affected around 10,000 babies who were born with different deformities.

Similarly, there have been instances where animal testing has proved that the products are not safe for human use, but in reality those products prove to be beneficial for human beings. Example : Aspirin which is remembered every time when we want relief from pain, failed when it was tested on animals as it caused malformations in dogs, rabbits, rats, cats, mice and monkeys.

Let's get down to some facts:

Every year, more than 100 million animals are disabled, poisoned and abused during the tests or after the tests. The animals are generally found in an emaciated condition.

Animals such as mice, rats, birds, reptiles and amphibians are excluded from the protection provided by the Animal Welfare Act.

Around 90% of the animals used for experiments in the U.S. labs are not considered in the official statistics related to animal use.

According to the data provided by the Humane Society, registration of a pesticide can be done only when it is supported by more than 50 experiments which lead to the use of more than 1200 animals.

While testing for potential carcinogens, animals are given a substance daily for 2 years. Other types of tests include killing of pregnant animals and then testing their fetuses.

After considering both the viewpoints and some facts, it can be concluded that animal testing is one of the major concerns in today's scenario. Researchers have proved that each year, between 115 million and 127

million animals are used for experiments. The concern is not only the sufferings of animals but also the disposal of animals. The disposal not only causes environmental harm due to animal decomposition but also strains the environment due to transportation and disposal of animal waste. The animals used for experiments generally don't survive and their disposal poses exposure to diseases, toxic chemicals, radioactive materials and other things.

Animal testing not only has a major impact on the environment but also on the society. One of the most intriguing statements is written in a Slate article, "Since the alternative [to animal testing] is to experiment on people, most everyone other than hardcore animal lovers accept animal testing. Periodically, however, a spectacular failure raises new questions about the enterprise – not for ethical reasons, but scientific ones."

One of the major dilemmas is faced by the caretakers of animals. These are professionals who take care of animals and feed them. They perform their job keeping in mind the benefits humans would receive from these animal experiments. ' They suffer from emotional trauma especially in those conditions where they are supposed to kill animals through neck breaking, suffocating them with carbon dioxide or by giving them lethal injection.

While many countries continue to ignore the seriousness of this issue, some have understood the gravity of this issue and have banned animal testing either wholly or partially in certain products like cosmetics. Countries like India, Turkey, Israel, South Korea, Sao Paulo, Brazil, New Zealand and in European Union have made laws that prohibit animal testing for beauty products, i.e., cosmetics.

This doesn't mean that the chemicals are not evaluated. Chemicals are evaluated by using various alternatives that give accurate results and protect the environment as well.

It could be implied that instead of investing resources on animal experimentations, the resources and efforts should be invested on various alternatives. Various alternatives available are :-

- Cell based tests (in vitro)
- Chemical based analytics tests (in chemico)
- Computer based modelling (in silico)
- Ethical human studies (in vivo)
- Tissue based tests where tissues are taken from dead animals or humans (ex vivo)

The earlier the countries understand the severity of this issue, the easier it would be to save the environment from getting damaged.

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In the end, I would just like to highlight that various research papers have been published to either signify the importance of animal testing or signifying the pathetic conditions under which the animals survive, thereby, suggesting alternatives to animal testing. It is upon our discretion to understand the gravity of the issue and resolve things before it gets too late or let things go the way they are going and then later face the consequences.