Title
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A Veterinarian Speaks Out
On “Safety” Testing

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Did you know that package labels listing ingredients on most consumer products leave out four major items? Fear, pain, suffering and death. Yet these four items are integral parts of virtually every household, cosmetic, industrial or agricultural product on the market today. Nearly everything ingested by, injected into or applied onto humans, (even those substances which may accidentally come into contact with them), is “safety” tested on nonhuman animal species. This includes antibiotics, personal hygiene preparations, cosmetics, household cleaners and industrial solvents, pesticides, fertilizers and machine lubricants.

On each of these products tests are conducted to determine chronic or acute toxicity, the product’s ability to generate cancer (carcinogenicity) or birth defects (mutagenicity). Chronic toxicity tests take one of two forms; either the substance is administered to the animal over a long period of time, or it is administered just once, then the animal is observed for an extended period. In these tests the degree of suffering varies from minimal to severe. Anesthetics or pain-relieving drugs are not used because they might interfere with test results. At the conclusion of the experiments all the animals are killed.

When a product is tested for acute toxicity test animals almost always are subjected to extreme suffering—and always without the benefit of anesthetics or pain-relieving drugs. Standard tests for acute effects include Lethal Dose 50% (LD50), eye irritancy (Draize), skin irritancy and inhalation.

The LD50 test involves administering by injection or forced ingestion various doses of material to groups of animals. Two or more species — as many as several hundred of each — may be used for every substance tested. The dose at which 50% of the animals die is called the LD50. Those animals who do die, despite agonizing deaths, may be considered the lucky ones. Those animals which do not die may suffer severe abdominal pain, muscle cramps, convulsions, vomiting, diarrhea, gastrointestinal ulcers with bleeding, loss of kidney function, or other painful conditions depending on the substance ingested. Sometimes the substance is not toxic and the animals die from the sheer volume of material forced into their stomachs.

Besides the inhumanity of LD50, there is one other critical problem connected to this test: the facts and figures derived from it are essentially meaningless. The LD50 is valid only on the animals in which it was determined and only for the exact conditions under which results were derived. Simply changing the ambient temperature, level of stress, or amount of food or water the animal receives can alter the results of LD50 by ten times or more. Furthermore, the LD50 changes drastically from one species to another, and even from one strain to another with the same species! The LD50 of a substance in rabbits or rats, in other words, has absolutely no relevance to that in human beings.

In the Draize test, products are tested for eye irritation by being placed into the eyes of conscious, restrained rabbits. The animals are observed over several days to determine any adverse reaction. Reactions will vary from none to minor to severe. In the worst situation the cornea may ulcerate and perforate. Because the cornea is one of the most sensitive tissues in the body, rich in nerve endings, irritation or ulceration of it produces considerable pain. The rabbits are restrained by the neck in stocks which prevent them from rubbing their eyes. Therefore, they cannot in any way mitigate the discomfort or pain produced by the material placed in their eyes.

There is a common misconception with the Draize test that rabbits are used because they have no tear ducts. This is not true. Rabbits have a tear production and drainage system essentially the same as humans. Instead, rabbits are used because they are easily handled, their eyes are large and easily dosed, they are relatively cheap, and, with albino rabbits, reactions to substances are easily observed.

As with the LD50, there are inherent problems with the Draize test. Specifically, because the rabbit’s eye is much more reactive than the human’s there is little correlation between how a substance affects the rabbit and human eye. Given this, the question is raised, is the Draize test necessary? For substances
containing acids or strong bases such as lye, the results can easily be surmised; no tests are necessary. For others, the material already may be known to be safe, and further testing is unnecessary.

All substances that may come in contact with the skin, such as household cleaners, solvents or pesticides, are subjected to skin irritancy tests. To conduct these tests, guinea pigs, rabbits or other animals have areas of their body shaved, then the substance is applied to the skin in such a way that the animal cannot remove it. The product is left on for several days to see if it causes blisters, inflammation or sloughing.

As with the eye irritancy test, the results have little relevance to the human experience since the skin of various species reacts differently than that of humans. Compounds which have tested safe on nonhuman animals have not proved universally safe when applied to humans. Moreover, many people are allergic to substances which have tested safe on other animals.

If a substance might be inhaled, it is put through an inhalation toxicity test. Rats or other species are forced to breathe the material, then observed for signs of toxicity. If the substance is not in a gaseous form, it is aerosolized and then sprayed at the animals. As you might imagine, substances such as ammonia cause immediate damage to delicate tissues of the lungs, resulting in a great deal of pain. Continued breathing, an obvious necessity, aggravates the situation, from which the animal has no escape.

How many animals are used in these tests in the United States? The numbers are in the millions per year. Many of these annual casualties occur right here on the Peninsula. In 1983, Syntex Research, a private pharmaceutical firm in Palo Alto, listed 74,666 animals, including dogs and primates, in column E of their annual report to the United States Department of Agriculture. Column E designates animals used in painful or distressful research or in tests for which anesthetics or pain-relieving drugs are withheld.

From a scientific standpoint, safety testing using nonhuman animals largely is irrelevant, unpredictable and potentially dangerous. In the first place, people tend to react differently from other animals to many substances. Further, this type of testing can never predict individual or familial tendencies for adverse reactions. The powerful antibiotic, chloramphenicol, for example, tests safe in nonhuman animals but causes death from aplastic anemia in susceptible humans.

For these humans the tiny amount applied in eye ointments can be a lethal dose.

From moral and ethical perspectives, too, this type of testing cannot be condoned. The "test subjects" are living, feeling creatures which enjoy life and are capable of suffering just like you and I. They have lives and interests independent of our own. Why, then, would we subject them to situations to which we would not consider subjecting ourselves? There are many non-animal tests that can be performed to estimate the toxicity of a particular product, and to achieve reasonable assurance that the product is safe. Once these tests are done the product can be tried on human volunteers. (Bear in mind that all products must eventually be tested on people, so using human volunteers is not a radical idea.) Bear in mind also that the use of nonhuman animals provides only a rough approximation of what might happen in a human.

It would be one thing if results from these tests were heeded. But this is not always the case. During "safety" testing of the artificial sweetener, saccharin, it was found that rodents developed cancer. Despite this, economic interests prevailed. Test results were, in essence, ignored, and the product was marketed, albeit with a warning. Thousands of animals were subjected to suffering and death for a trivial, nonessential product, yet the data generated were preempted by money!

Safety testing is morally indefensible for yet one more reason. In most cases there is an acceptable product available containing safe ingredients which have not been tested on animals, or which have already been proven safe through years of uneventful human use. So, why does safety testing continue, and, in a more positive vein, what is a reasonable alternative to these fallacious, inhumane procedures?

As with most complicated situations, there are no easy or universally acceptable answers. Inertia, tradition, and fear of lawsuits are some of the reasons for continuing with these procedures. Federal agencies, however, such as the Food and Drug Administration and Environmental Protection Agency have stated that they neither require nor encourage the LD_{50} test. As a result, many companies are modifying the LD_{50} and other tests so that the number of animals used is less. I believe, however, that we are morally obligated to refrain from using any nonhuman animals in this type of testing. There are numerous "cruelty-free" products readily available. They are safe, reasonable alternatives to those tested on animals.

Most safety testing is conducted on products which are designed to offer "improvements" over an existing one. Whereas "new" and "improved" may be standard operating procedure in a free enterprise system, the fact that animals must suffer and die for this makes it unconscionable.

What can you do to reduce the pain and suffering involved in "safety" testing?

(1) Alert others to the truth about the products they are using by passing this article along. When the facts are known, compassionate people will substitute cruelty-free alternatives. (2) Alert your local market to the facts, and ask them to carry at least some of the alternative products. Whereas food co-ops traditionally have been responsive to this issue, inroads must be made into the awareness and sensitivities of those who manage and buy for large grocery chains. (3) Make the pledge to use cruelty-free products whenever possible! Follow up by letting producers of other products know that you have switched over and why.

You have the power to halt the abuse and misuse of animals in product safety testing simply by the economic choices you make when buying consumer products. If enough people recognize and begin exercising this power those who are perpetuating inhumanity in the name of science will be forced to stop. Cold.

And that in the end is the only humane resolution to the issue and act of "safety" testing.

For a complete list of humane products on the market today write: Ambridge Animal Welfare, 15225 Alvarado St., Milner, Georgia 30257 404/358-2991

Stop by PHS's Pet Supply Shop for Beauty Without Cruelty cosmetic products or information.