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Buyukmihci, N

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A Veterinarian Speaks Out On "Safety" Testing

Dr. Neida C. Byrulikoski is associate professor of ophthalmology at the University of California, Davis and the west coast director and co-founder of the Association of Veterinarians for Animal Rights.

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, injected into or applied onto humans, (even those substances whose name, we, accidentally call "contact" with the) is "safety" tested on nonhuman animals. Today's 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 effect on the reproductive system (carcinogenicity) or birth defects (mutagenicity). Chronic toxicity tests take one of two forms; either the substance is administered to an animal over a long period of time, or 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. Some anesthetics or pain-relieving drugs are not 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, the animals are usually subjected to extreme suffering and are always killed. Without the benefit of anesthetics or pain-relieving drugs. Standard tests for acute effects include Lethal Dose 50% (LD 50), skin irritancy (Draize), animal irritation and inhalation.

The LD50 test involves administering by injection or forced ingestion various doses of a test substance to groups of animals. Two or more species – as many as several hundred of each – may be used. A test substance is injected, ingested or applied to an animal at a dose at which 50% of the animals die is called the LD 50. The animals are given a dose, desinegating deaths, may some animals die. Those animals which do not die may suffer nervous system convulsions, vomiting, diarrhea, gasping, arrhythmia, and bleading faces of kidney function, or other painful conditions depending on the substance ingested. Sometimes the substance is not toxic and the animal dies from the sheer volume of material forced into their lungs.

Besides the inhumanity of LD50, there is another critical problem connected to this test: the facts and figures derived from it are not reasonable, beyond 'common sense' on the animals in which it was determined and on the eventual condition of the organisms under which results were derived. Simply changing the ambient temperature, level of stress, or amount of water or water the animals receive 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 which is 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 irritancy by being placed into the eyes of rabbits or rats. The animals are observed over several days to determine any edema formation which 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 is particularly excruciating pain. The rabbits are restrained by the neck is 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. Rabbit have a proper production and drainage system essentially the same as humans. Instead, rabbits are used because they are easily handled, this area 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 on strong bases such as lys, the results can easily be assumed; 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 this skin, such as household cleansers, savietts or paper products, are tested for irritancy and inhalation 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. The test is considered a "positive" if the animal cannot remove it. The product is left on for several days to see if it causes blisters, inflammation or scarring.

As with the eye irritancy test, the results have little relevance to the human experience since the range of species reacts differently than that of humans, 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 as inhalation toxicity test. A rat or other species are forced to breathe the test substance for a certain period of time. If the substance is not in a gaseous form, it is aerosolized and sprayed at the animals. As you might expect, these tests are designed to 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. Each year millions of animals 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 Departement of Agriculture. Column E designates animals in pain, distress, or discomfort research or in tests for which non-animal, 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, the type of organism used, for example, isochromatophoric, for example, tests safe in nonhuman animals but causes death from splastic anemia in rats. For example, once the tin smoot applied in eye ointments can be a lethal substance to humans.

From moral and ethical perspectives, too, this type of testing cannot be condoned. The "test subjects" are living, feeling creatures which exist in a world like our own. They have lives and interests independent of our own. Their suffering, therefore, should be subject to situations to which we would not consider subjecting ourselves! There are many non-animal tests that can be performed to determine the toxicity of a particular product, and to those rare researches which are necessary so that our product can be tested on human volunteers. As a veterinarian, I am in mind that all products are eventually tested on people, so using human volunteers is not a "radical idea." Bear in mind also that the use of nonhuman animals provides only rough approximation of what might happen in a human.

It would be one thing if results from these tests were needed. But this is not always the case. During the "safety" testing of the artificial sweetener, aspartame, it was found that rodents developed cancer. Despite this, economic interests prevented. 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 dollars generated were preempted by money.

Safety testing is morally indefensible for yet another reason. In most cases there is no acceptable product available containing safe levels of aspartame. Many animals were subjected to suffering and death for a trivial, nonessential product, yet the dollars generated were preempted by money.

Most safety testing is conducted on products which are designed to offer "improvements" over an existing one. Whereas "new" and "improved" non-animal, products are designed to be better than the LD50 and other tests so that the number of animals used in less. I believe, however, that we are morally obliged to refrain from using any nonhuman animals in this type of tests. There are numerous "crustacea-free" products readily available. They are safe, reasonable alternative to those that are not.

As with most complicated situations, there are no easy or universally acceptable answers. Inert, tradition, and fear of lawsuits are some of the reasons for continuing with these procedures. Federal agencies, however, such as the Environmental Protection Agency and the Environmental Protection Agency have stated that they neither require nor encourage the LD50 tests of all products. While it is true that the LD50 and other tests so that the number of animals used in less. I believe, however, that we are morally obliged to refrain from using any nonhuman animals in this type of tests. There are numerous "crustacea-free" products readily available. They are safe, reasonable alternative to those that are not.

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The California Condor

(part one of two parts)

It was estimated in 1936 that there were about 60 California condors; a study done in the 1960s indicated that the condors had dropped to 40. Recently, a condor egg hatched at the San Diego Zoo. It has been taken from a wild nest as part of the captive breeding program and brings the total number of condors to 27; there are 12 birds in the San Diego Zoo, 12 in the Los Angeles Zoo, and 3 in the wild.

Although studies done in the 1930s and 1960s indicated that the condors were in trouble, it wasn't until 1960 that the Condor Recovery Program was instigated in response to the alarming decline of the condor population. By that time, the PWS felt it was too late to do the research necessary to ensure maximum protection for the individual birds in their wild habitat, and the captive breeding program was controversial, especially with regard to the direction the captive breeding program seems to be taking. Several government agencies are involved, but the U.S. Fish and Wildlife Service has the lead responsibility.

Essentially, the biggest threat to the condors' survival in the wild has been the dramatic shrinkage of its habitat. The condor is a type of raptor that feeds on carcasses of large wild animals. It is found in the U.S. Southwestern states, Mexico, and Central America. Its diet consists of dead animals, and it is highly selective in its choice of prey. In the wild, it is found in the U.S. Southwestern states, Mexico, and Central America. Its diet consists of dead animals, and it is highly selective in its choice of prey.

Incredibly, its habitat is now limited to the hills north of Los Angeles and certain areas of the San Francisco Bay Area. It is estimated that the remaining birds are about 20,000, and the program is concentrated in the San Francisco Bay Area. As evidenced by its rapid decline over the last several decades, the loss of habitat has had a catastrophic effect on the species.

Aside from the loss of habitat, hunting, and lead poisoning account for the most condor fatalities during the last several years, and agriculture (including those used in official animal control efforts) is considered a major causative factor in the species' decline. It is very probable responsible for some condor deaths. Compound 1080, a toxic chemical used for killing rodents and aquatics for local cattle ranchers (as part of the PWS' Animal Damage Control Program), is considered to be lethal. And the California Department of Fish and Game (CDFG) (another state agency) is working to introduce the program. The birds' nesting ground is focused mostly within the Los Padres National Forest (Central Coast of California). As evidenced by its rapid decline over the last several decades, the loss of habitat has had a catastrophic effect on the species.

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The following points of view are extracted from that article on animal 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 inhumane in the name of science will be forced to stop. And then in the end it is only humane resolution to the issue and act of "safety" testing.

Research at the University of California, Berkeley, has conducted a study on the effects of lead in the diet on the growth and development of birds. The study was funded by the National Institutes of Health and the National Science Foundation. The results of the study have been widely publicized and have led to the development of a new lead-free animal feed. The study showed that lead contamination in the diet of birds can cause significant developmental abnormalities, including reduced growth rates and altered brain development.

In conclusion, the study suggests that lead exposure in the diet of birds should be avoided as much as possible. This is especially important for young birds, which are more susceptible to the effects of lead. The study also highlights the importance of providing a lead-free environment for birds, particularly in areas where lead exposure is high.

Lead poisoning is a serious health problem for birds and other animals. It is caused by ingesting lead from leaded paint, ammunition, or items containing lead, such as bird feeders or fishing gear. Lead poisoning can cause a wide range of health problems, including weakness, anemia, and nerve damage. In severe cases, lead poisoning can be fatal.

To prevent lead poisoning, it is important to provide safe environments for birds and other animals. This includes reducing lead exposure in the diet and avoiding leaded products. By taking these steps, we can help protect the health and well-being of birds and other animals.