

# ANIMAL EXPERIMENTS

MICE AND RATS ARE THE ANIMALS MOST COMMONLY USED FOR EXPERIMENTS BECAUSE THEY ARE SMALL, CHEAP TO HOUSE AND EASY TO BREED



**Vivisection, which is the practice of experimenting on live animals, is a hotly debated subject. Some people argue that animal experiments are essential for medical progress and for testing the safety of new products. Others say that, as well as being cruel to animals, they are also harmful to people.**

**This is because the results from animal tests apply only to animals – humans often react very differently and so the animal results are misleading.**

## What happens in laboratories?

The government describes an animal experiment as a 'procedure' that is 'likely to cause pain, suffering, distress or lasting harm'. Many experiments cause extreme suffering, often to the point of the animal's death. Even when they are not being experimented on, animals suffer stress in laboratories where they are typically kept in barren containers or kennels. Some will be kept in solitary confinement, denied any company or comfort. After the animals have been used in experiments they are usually killed, although many will be used in ongoing experiments over a period of months, or even years.

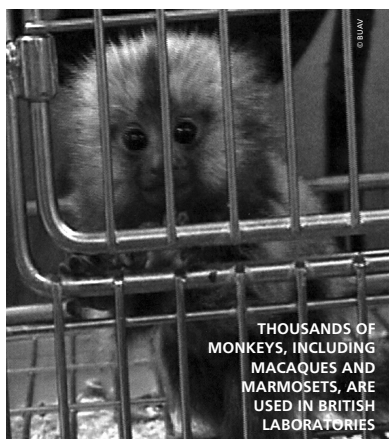
## How many animals are used?

In 2012 over 4 million animals are experimented on inside British laboratories. This figure does not include 'wasted' animals – those bred so that bits of their bodies can be used in research; animals rejected because they weren't quite 'right'; or animals who were 'surplus' to requirements. If these were included in the annual statistics, the tally of animals used would probably increase by millions.

## What types of animals are used?

74% of animals used in laboratory experiments in 2012 were mice. The main reason they were the most commonly used species is because they are small, cheap to house and easy to breed.

Other types of animals used include fish, rats, guinea pigs, birds, rabbits, cats, dogs, primates, reptiles, pigs, sheep, cattle and horses.



THOUSANDS OF MONKEYS, INCLUDING MACAQUES AND MARMOSETS, ARE USED IN BRITISH LABORATORIES

BEAGLES ARE THE MOST COMMONLY USED DOGS BECAUSE THEY ARE DOCILE, TRUSTING AND OBEDIENT



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When researchers say 'most of the animals we use are rats and mice', it is as though these animals do not suffer. Rats and mice are intelligent, inquisitive animals. They possess strong maternal instincts, and experience pain and fear just like any other animal. They are used in horrific experiments to test pain levels and in toxicity tests, in which they are literally poisoned to death.

## Medical research

Researchers say they need to use animals in medical experiments to find the causes of, and treatments for, human diseases.

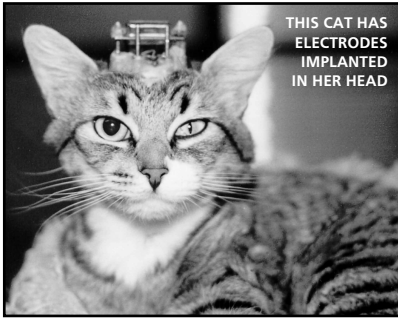
### Drug testing

New medicines intended for people are first tested on animals in an effort to find out if they cause harmful side effects. These are called safety, or toxicity, tests.

### Disease research

Researchers try to recreate human illnesses in animals so that they can study them and, supposedly, find cures. Animals are infected with lethal viruses, given cancer, surgically mutilated and injected with toxic chemicals to induce or mimic the symptoms of human diseases.

To induce artificial strokes in rats, cats and monkeys, researchers block arteries in their brains. Monkeys are often deliberately brain damaged, supposedly to find cures for human diseases such as Parkinson's and Alzheimer's. Other animals are deliberately driven mad so that they can be used to study conditions such as depression and schizophrenia.



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**GM research**  
A growing number of genetically modified (GM) animals are being bred every year. These animals have genes added, removed or altered in an

effort to mimic different human diseases such as cystic fibrosis, diabetes and asthma. Some animals have been modified to be born with, or automatically develop, different types of cancer. However, even GM animals do not get the same disease symptoms or react to drugs in the same way as humans. (See our *Genetic Engineering* factsheet.)

**Product safety tests**

Every year, hundreds of thousands of animals are used in toxicity tests that are designed to assess the safety of agricultural and industrial chemicals, food additives, and household cleaning products. These substances are rubbed into their skin, dripped into their eyes, forced down their stomachs, injected, or administered as a gas in a sealed chamber.

In 2013, the European Union (EU) banned the sale of cosmetics that have been tested on animals. (See our *Product Safety Testing* factsheet.)

**Weapons research**

Animals are maimed, shot, blown up and exposed to poisonous chemicals, gases, deadly toxins, viruses and bacteria in weapons tests.

**Do animal experiments save lives?**

Animal experiments give results that cannot reliably be applied to humans. Animals' bodies are different from ours - they don't get the same diseases as us and they often have very different reactions to drugs and chemicals. The success rate for predicting harmful side effects from animal experiments is only 5 - 25%, which means we would be better off tossing a coin. It is hardly surprising that nine out of ten new medicines that pass animal tests, fail when they are first tried out on humans in clinical trials.

A good example of how different species react to a chemical or medicine is penicillin, which is one of the most commonly used antibiotics. Penicillin kills guinea pigs, yet it cures humans. Products such as aspirin and paracetamol, commonly used to treat people, are highly poisonous to cats. Aspirin causes birth defects in most laboratory animals, but not in humans, and chocolate is poisonous to dogs.

Many drugs, which were passed as safe in animal tests, have caused serious side effects in people.

In addition, none of the animal disease 'models' accurately mimic a sick human being, so relying on information obtained from them during experiments can be dangerously misleading.

**What are the alternatives to animal experiments?**

**Human cells or tissues** can be studied in vitro (in a test tube) to gather information about disease, test drugs and manufacture vaccines. Every human cell type can be studied in vitro.

**Computer models** can be used to screen potential drugs at an early stage in their development.

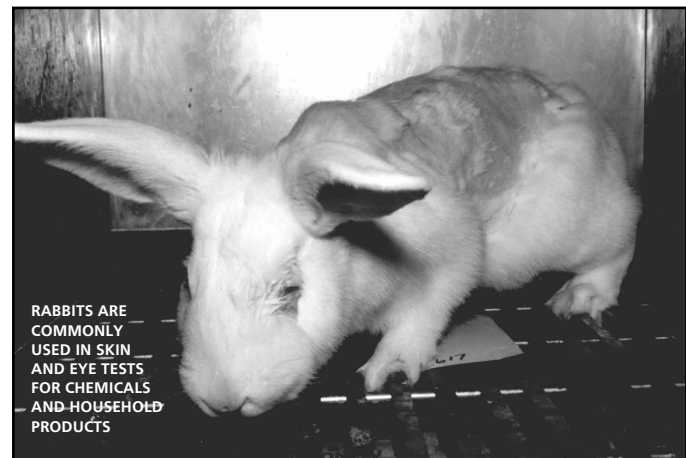
**Molecular methods such as DNA chips** can be used to study the effects of drugs on human DNA and the biochemistry and genetics underlying various illnesses.

**Microfluidics and Organ on a chip technologies** can be used to test new drugs by mimicking what goes on in a human organ or the whole body on a micro scale.

**Microdosing** enables potential new drugs to be tested safely in humans at an earlier stage.

Better use could also be made of **medical imaging technologies, post mortem studies, clinical research and population studies (epidemiology).**

(For more info, see our *Humane Research* factsheet.)



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**WHAT YOU CAN DO!**

- Join the Animal Aid Youth Group and help to campaign against all animal experiments.
- Find out more. Check out our website: [www.animalaid.org.uk/youth](http://www.animalaid.org.uk/youth)
- Don't buy household products that are tested on animals. Contact the British Union for the Abolition of Vivisection (BUAV) for a copy of their cruelty-free list: [www.buav.org](http://www.buav.org)
- Ask your teacher if someone from Animal Aid can come to your school to give a talk on animals in medical research.