

Animal experiments

Mice are the animals most commonly used for experiments because they are small, cheap to house and easy to breed



Each year around 4 million animals are used in UK laboratories. Some people say that we need to experiment on animals for medical progress and to test the safety of new products. Others argue that, as well as causing the animals a great deal of pain and distress, these experiments are misleading and unreliable and should be replaced with modern non-animal research methods.

What happens in laboratories?

The government describes an animal experiment as a 'procedure' that is 'likely to cause pain, suffering, distress or lasting harm'. The majority of animals used are bred specifically for the purpose and are kept in small cages or kennels inside the laboratories. After the animals have been used in experiments they are usually killed. Some will be used in ongoing experiments over a period of months, or even years.

How many animals are used?

Around 4 million procedures are carried out on animals each year in the UK.¹ Approximately half of these involve experiments carried out on animals and half are procedures for the creation and breeding of genetically altered (GA) animals.¹ These animals are used to produce GA offspring for use in experimental procedures but are not themselves experimented on.

Which animals are used?

Mice are the most commonly used animal - they make up around three quarters of the animals used for scientific research.¹



Other animals used include hamsters, gerbils, guinea pigs, birds, fish, rats, rabbits, cats, dogs, primates (monkeys), reptiles, pigs, sheep, cattle and horses.¹

Beagles are the most commonly used dogs because they are small, docile and trusting



Medical research

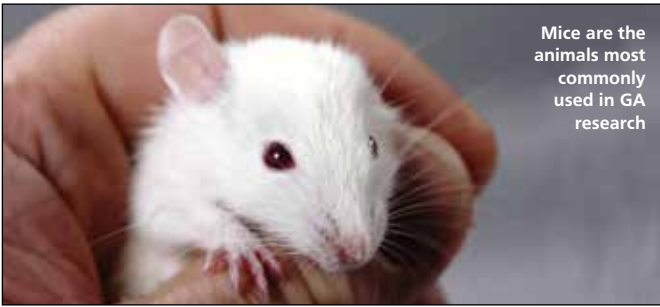
New drugs and surgical techniques intended for people are first tested on animals.

Researchers try to recreate human illnesses in animals so that they can study them and attempt to find cures.

Animals are genetically altered, surgically mutilated, given cancer, infected with viruses, brain-damaged and injured in other ways in an attempt to recreate the symptoms of human diseases.

For example, in Parkinson's disease research, monkeys' brains are deliberately damaged with toxic chemicals in an attempt to recreate the symptoms of illness.² In heart disease research, the condition is artificially induced in dogs by blocking the arteries to their heart.³

None of these animal disease 'models' accurately replicate the illness in people, so relying on information obtained from them can be very misleading.



Mice are the animals most commonly used in GA research

Genetically altered (GA) animals

Genetically altered (GA) animals have genes added, removed or altered in an effort to mimic different human diseases such as cystic fibrosis or diabetes. Some animals have been modified to be born with, or automatically develop, different types of cancer.

Many researchers claim that using genetically altered animals will make the experiments more reliable. But mice genetically altered to suffer from Alzheimer's disease, for example, have failed to accurately reproduce the disease.⁴

Product safety tests

Animals are used in toxicity tests in an attempt to assess the safety of new pharmaceuticals, agricultural and industrial chemicals, food additives and various other products. Animals are force-fed substances, they have chemicals rubbed into their skin or dripped into their eyes and they are made to inhale toxic fumes to see how poisonous they are.

Since 2013, no new cosmetics or toiletries containing ingredients that have been tested on animals have been allowed to be sold in the EU.

Warfare research

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

Do animal experiments save lives?

Animal experiments are unreliable and misleading. This is because animals' bodies are different from ours. They do not react to chemicals in the same way and they do not suffer from the same diseases as people.

The success rate for predicting the harmful side effects from animal experiments is only 5 - 25%, which means we would be better off tossing a coin.⁵

It is hardly surprising that nine out of ten new medicines that pass animal tests, fail when they are subsequently tried out on humans in clinical trials.⁶

Substances that are harmless to humans may be toxic to animals, and vice versa. Many drugs that were passed as safe in animal tests have been withdrawn after causing serious side effects, even deaths, when given to people.

For example, the arthritis drug Vioxx, which had been tested 'successfully' on animals, was reported to have caused tens of thousands of heart attacks and strokes before being withdrawn.⁷

What are the alternatives to animal experiments?

Stopping animal experiments will not mean an end to medical progress. In fact, because the information from animal research cannot reliably be applied to people, non-animal methods using human-based studies will actually give better results.

Humane non-animal methods include:

- **Human cells or tissue cultures** studied 'in vitro' (in a test tube) to gather information about disease and to test drugs.
- **Computer programmes** that model the workings of human organs so that researchers can predict how drugs will work.
- **Microfluidics and organ-on-a-chip technologies** to test new drugs by mimicking what goes on in a human organ or the whole body on a micro-scale.
- **Epidemiology studies** to observe and compare groups of people to discover the causes of illness.
- **Clinical case studies** that involve studying patients to discover more about treatments.



What you can do!

- Join Animal Aid and help to campaign against animal experiments
- Visit our website to order a free *End animal experiments* action pack
- Buy cosmetics, toiletries and household cleaning products that have the leaping bunny symbol on. This shows that they are made by companies that don't test on animals.
- Ask your teacher to invite someone from Animal Aid to give a talk in a lesson on animal experiments.

For the references see the Animal Aid website: www.animalaid.org.uk/education/

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