

# What is being done to reduce the use of animals in research ?

The scientific community looks for ways to minimise the use of animals in research. Charities, alongside the government and pharmaceutical companies, support the NC3Rs (the National Centre for the Replacement, Refinement and Reduction of Animals in Research), which promotes the 3Rs and develops ways to replace animal research and improve animal welfare.

The 3Rs are:

## Replacement

Using alternative techniques, or avoiding the use of animals altogether.

## Reduction

Using as few animals as possible.

## Refinement

Improving animal welfare through better experimental design, housing and care.

Researchers are replacing animals with stem cells that mimic the brain cells of people with Alzheimer's disease. If they are successful, fewer animals will be used in drug testing and a new treatment for Alzheimer's disease could be found.

# How are the animals cared for ?

The UK has strict laws for animal research. Every study that uses animals requires licences from the government for the person doing the research, for the project itself and for the place where the research will happen. Only when the expected benefits outweigh the harm to the animals is the research licensed.

At places that carry out animal research:

- All animals are looked after by highly trained staff.
- They have vets on call to advise on the animals' health and welfare.
- An ethics committee considers the research and monitors how animals are cared for.
- Animals live in specially designed housing. Facilities are inspected regularly, often without warning.

Charities take animal welfare very seriously. We expect the researchers we fund to go above and beyond the law, in placing animal welfare at the heart of what they do, and working to the 3Rs principles.

# Want to find out more ?

To learn more about animal research, visit Understanding Animal Research at: [www.understandinganimalresearch.org.uk](http://www.understandinganimalresearch.org.uk)

*Image credits:*  
Zebrafish: Wellcome Library, London; Child using inhaler: Asthma UK; Cinnamon rat and guinea pig: Understanding Animal Research.

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# Why do medical research charities fund animal research ?



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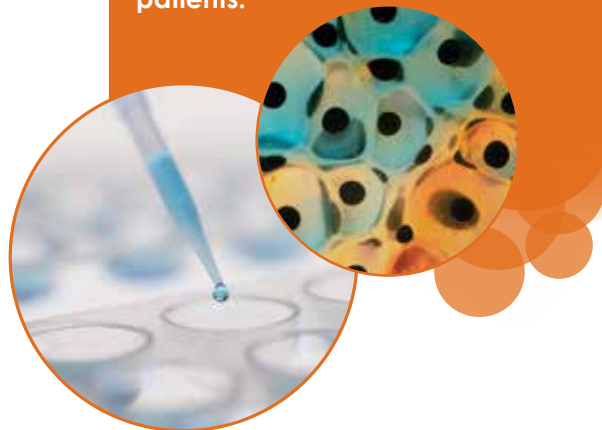
# Why do research with animals ?

Medical research charities are here to support people with different medical conditions and to fund research to find new treatments and cures. Our research has led to discoveries in cancer, heart disease, diabetes, dementia and other diseases.

Charities fund many different types of research, including studies using human cells, computer models and sometimes animals. Any decision to use animals is never taken lightly, and we only fund animal studies when other methods will not help.

We understand that not everyone agrees with animal research. But we know that people are alive today because of research and animal studies have played an essential part in this progress.

**By law all new drugs have to be tested on animals before they can go into clinical trials for patients.**



# So what can we learn from animal research ?

Before researchers can develop a new drug, they need to understand the condition they are hoping to treat and how it affects the body. We can learn a lot about this from animals as we have the same organs, including hearts, lungs and brains.

**Studies with guinea pigs have helped researchers understand what happens in the lungs during asthma attacks. This has led to the development of drugs to prevent asthma, now used by more than 235 million people around the world.**



Animals can help us unravel the genetics behind certain conditions because we have many of the same genes. We share 80% of our genes with mice, 70% with zebrafish, and even fruitflies have 60% of the same genes as us.

**Research in mice has improved the outlook for the 600 people diagnosed with chronic myeloid leukaemia (CML) in the UK each year. Thanks to a new treatment, Imatinib, survival rates have improved from 30% to 90% and many people with CML are able to enjoy a good quality of life.**



# When are animals used in research ?

Most medical research doesn't involve animals. When researchers work with animals they have to use the appropriate number and species. Mostly that means rats, mice and fish. Only around one in 1,000 studies involve dogs, and monkeys are used even less frequently. Chimpanzees, gorillas and orangutans have not been used in UK medical research for over 25 years.