

Information Sheet - Overview

Overview: The use of animals in medical research

Animals are used in medical research for several purposes. About a third of such research is “basic” or “fundamental,” aimed at understanding how the body, or its component cells and organs, work. A further third is “applied,” to increase understanding of and develop new treatments for disease. It includes safety testing of new medicines (required by law; accounts for about 10% of all animal use) and non-drug safety testing (e.g. for agricultural or domestic products). The remaining third includes breeding animals for the increasing number of studies on the genetic basis of health or disease and other relatively small areas such as developing new diagnostic methods.

In 2004, about 85% of animal research involved rats, mice and other rodents. Other animals used very occasionally include dogs and cats (0.3%) and monkeys, such as marmosets and macaques (0.15%). The use of chimpanzees, orangutans and gorillas is banned in the UK, all animals are bred for research (strays/unwanted pets cannot be used) and cosmetic testing was banned here in 1998.

The Animals (Scientific Procedures) Act 1986 regulates scientific procedures which ‘may cause pain, suffering, distress or lasting harm’ to ‘protected animals’. These are: all living non-human vertebrates (animals with backbones or spines) and one invertebrate, the common octopus. A new level of regulation introduced in April 1999, local ethical review, makes the UK the only country where animal research is regulated through both such ethics committees and central government.

UK guiding principles for animal research are called “the three Rs,” as they aim to reduce the number of animals used to a minimum, refine the way experiments are carried out to minimise suffering and replace animal experiments with non-animal techniques wherever possible. Opinion polls suggest that while most people would like more alternatives used, they accept using animals in research as long as it is ethical, well-regulated, for medical benefit and minimises suffering, and they abhor the tactics of violent animal rights extremists. There is also evidence that people are more concerned about the use of some animals than others (“speciesism”) which leads to questions about whether there are scientific or morally relevant differences between species, such as mice, cats and monkeys?

The following table summarises some of the main arguments outlined above.

For	Against
Gives useful information about how the body works in health and disease; we share ~90% of our DNA with mice	Scientifically misleading: animals and man differ too much, and stressed lab animals give invalid information
Ethically justified, or indeed an ethical imperative, because humans matter more than animals	Morally wrong because it causes suffering to living creatures who can't choose whether or not to participate
Does not always cause suffering: often involves little more than taking tests or making observations	Frequently causes pain and suffering, and deprives animals of a normal life
Stringent regulations safeguard animals and ensure best practice and high welfare standards	Rules are ignored, monitoring is inadequate and undercover investigations reveal animal abuse
Animal research and testing are carried out for scientific reasons	Animal research and testing are commercially-driven multi-million pound concerns
New medicines have caused death or injury because they were not adequately tested on animals	Many drugs have dangerous side-effects that were not predicted by animal models, and drugs can have different effects in animals and man
Animal health and care have improved as a result of research involving animals	The benefits to animals come at too high a price: we should use existing knowledge, but not do new research