Two-thirds of the animal experiments carried out in 2019 had minimal or no adverse effects on the animals.

- **Degree 0**: Without pain, suffering, harm, fear; e.g. tests done in a better husbandry system for chickens to increase their wellbeing and reduce the rate of injury.
- **Degree 1**: Short-term mild pain, injury, impairment; e.g. blood database for dogs, training of veterinary students.
- **Degree 2**: Short-term moderate or long-term mild constraint; e.g. testing of experimental cancer drugs in mice and infection of cattle with lungworms to develop medicines for cattle.
- **Degree 3**: Severe constraint (pain, suffering, injury); e.g. performing kidney transplantation in mice in order to better understand rejection reactions, thus enabling us to counteract them.

572,069 animals were used for scientific purposes in Switzerland in 2019

- 389,052 mice
- 63,958 rats
- 59,564 birds
- 28,409 fish
- 25,543 farm animals, other mammals
- 3,012 reptiles, amphibians, invertebrates
- 2,040 dogs
- 257 cats
- 234 primates

- 223,266 → degree 0
- 172,389 → degree 1
- 158,124 → degree 2
- 18,290 → degree 3

Important for humans, animals and the environment

Animal research allows progress in medicine
- Research into the fundamentals of body functions as well as known and new diseases
- Innovations or developments in the prevention, diagnosis and treatment of diseases in humans and animals
- Training of doctors, veterinarians, animal keepers and scientists

Animal research protects humans, animals and the environment
- Toxicity/safety testing of active substances and products to protect health and life

The COVID-19 pandemic clearly shows how important animal research is in combating new diseases.
The protection of human and animal health is enshrined in the Swiss Constitution, i.e. diseases must be combated and the safety of chemical substances must be tested.

Animal research
- is permitted in basic research to study the anatomy of human beings and animals
- is legally required for testing the efficacy and safety of new medicines, chemical substances and products
- is prohibited for testing of cosmetic products

Animal experiments may only be carried out:
- if there is no alternative to the use of animals
- if they are ethically justifiable, i.e. the scientific benefit outweighs the suffering of the animals
- by trained specialists
- with a valid animal research permit
- in compliance with the strict rules of the Swiss Animal Welfare Act and under the control of the cantonal veterinarians

The 3Rs principle
Those, who carry out animal experiments must apply the 3Rs principle:
Replace:
Replacement by cultured cells, tissues or organs or computer simulations wherever possible
Reduce:
Reduction in the number of animals used per test
Refine:
Improvement in testing to minimise constraint to the animals and promote their wellbeing

The most gentle method must always be used as well as the smallest number of animals. The distress to the animals must be as small as possible, i.e. any pain must be combat-ed with painkillers, and surgical procedures are carried out under anaesthesia as in humans.

Treatment successes – thanks to animal research
Thanks to animal research, we can better understand and treat diseases that affect every one of us. Animal research was essential for the development of highly effective medicines for:
- Migraine
- Rheumatism
- Breast cancer
- Diabetes
- Heart attacks
- Pneumonia

Thanks to biomedical research, many diseases can be cured, and the quality of life has improved significantly. The same applies to biomedical research for our domestic and farm animals.

Research on animals is still indispensable for research into the basic principles and treatments of incurable and newly emerging diseases. At the same time, scientists are pressing ahead with the development of alternative methods and the refinement of the methods of conducting animal experiments.

One of the success stories is the discovery and development of monoclonal antibodies by Swiss researchers. Today, these modern targeted medicines are among the most important and successful achievements in the fight against diseases such as breast cancer, arthritis and migraine.

Thanks to animal research, vaccinations have been discovered and developed - one of the greatest successes in medical history. Fatal diseases such as smallpox have successfully been eradicated. Vaccinations against diphtheria, tetanus, whooping cough, hepatitis, polio, measles and tuberculosis also save about six million lives worldwide every year.

For further information, please visit: https://naturalsciences.ch/animal-experimentation-explained

Animal experiments = scientific experiments on and with animals

Consequences of a ban on animal research
- A lack of understanding the basic science in medicine (diseases, body functions) or in nature and environmental protection (development and protection of wild populations, behavioural research).
- No new medicines or vaccines to fight against new diseases, resistances and pathogens (diseases such as COVID-19 and infections caused by pathogens such as HIV, Ebola, Zika).
- No progress in the treatment of incurable diseases.
- Diseases increasingly become untreatable as germs become resistant and no antibiotics are developed.
- The safety of new substances and products cannot be guaranteed.
- Animal protection is deteriorating as regulations on animal research abroad are usually less strict than in Switzerland.
- Potential import bans on drugs and a lack of recognition of tests performed abroad will jeopardise our supply of medicines.