



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







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

Swiss Laboratory Animal Science Association (SGV)

Swiss Association of Veterinarians in Industry and Research (SAVIR)

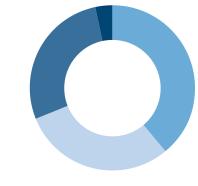


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223.266 → level 0

none at all.

- **172.389** → level 1
- **158,124** → level 2
- **18,290** → level 3



● Niveau 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.

Two-thirds of the animal experiments

carried out in 2019 had minimal

adverse effects on the animals or

- Niveau 1: short-term mild pain, damage, impairment; e.g. blood database for dogs, training of veterinary students.
- Niveau 2: short-term moderate or long-term mild exposure; e.g. testing of experimental cancer drugs in mice and infection of cattle with lungworms to develop medicines for cattle.
- Niveau 3: severe stress (pain, suffering, damage); e.g. performing kidney transplants in mice in order to better understand rejection reactions, thus enabling us to counteract them.

Important for humans, animals and the environment

Animal research



Animal research allows progress in medicine

Animal research protects humans, animals and the environment

The COVID-19 pandemic clearly shows how important animal research is in combating new pathogens.





The protection of human and animal health is enshrined in the Constitution, i.e. diseases must be combated and the safety of chemical substances must be tested.

Animal research

- Is used in basic research to study the anatomy of human beings and animals
- Legally required for testing the efficacy and safety of new medicines, chemical substances and products
- The testing of cosmetic products on animals is prohibited

Animal experiments may only be carried out:

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

The most gentle method must always be used as well as the fewest number of animals. The distress to the animals must be as little as possible, i.e. any pain must be combated with painkillers and surgical procedures or anaesthesia.

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 distress to the animals and promote their wellbeing

Animal research = scientific experiments on and with animals



Procedures on animals are performed under the same conditions as on humans. A surgical procedure on a laboratory animal (pig) is shown here

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 facilitated the development of highly effective medicines for migraine, rheumatism, breast cancer, diabetes, heart attacks or pneumonia. Thanks to biomedical research, many diseases can be cured and our 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 refining 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. As a matter of course, fatal diseases such as smallpox have 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: naturwissenschaften.ch/tierversuche

Consequences of a ban on animal research

- A dramatic reduction in our understanding of the scientific principles in medicine (diseases, body functions) or in nature and environmental protection (development and protection of wild populations, behavioural research).
- Virtually no new medicines or vaccines to fight against new diseases, resistances and pathogens (diseases such as COVID-19 and infections caused by viruses such as HIV, Ebola, Zika).
- → No progress in the treatment of incurable diseases.
- → A rise in the number of untreatable **diseases** as germs become more resistant and fewer antibiotics are developed.
- The safety of new substances and products cannot be guaranteed.
- Animal protection is deteriorating as the laws on animal research abroad are usually less strict than in Switzerland.
- Potential import bans on drugs and a and lack of recognition for tests performed abroad will put our supply of medicines at risk.



Animal experiments also include research on wild populations (marsh tit on the left) and behavioural research (on the right).