

GUIDELINES OF THE HEALTHY DOG BREEDING TASK FORCE

Principles of Dog Breeding

Introduction

Responsible dog breeding places high demands on breeders. A sustainable, animal-friendly selection of suitable breeding animals can only be achieved if there is knowledge of genetics and hereditary diseases. Furthermore, insufficient knowledge of normal pregnancy, the birthing process and the development of puppies jeopardises the health of the mother dog and her offspring.

Cooperation between breeders, legislators and regulators, the relevant authorities, the veterinary profession and dog owners is essential to ensure that dogs and humans can enjoy a good life together.

The following guidelines, which are partly based on the Responsible Dog Breeding Guidelines issued by the EU Platform on Animal Welfare on 3 November 2020, are intended to support dog breeders in Germany in breeding responsibly and in the best interests of the animals. They have a duty to give puppies a good start in life so that they are healthy, well socialised and can lead a happy life in their new homes after weaning or rehoming.

Breeders are obliged to find suitable homes for the puppies they breed. They must ensure that the owners are a good match for the dogs and are aware of their lifelong duty of care. Prospective puppy owners can also use the guidelines to identify the criteria they should consider when selecting a breeder.

1. Basic principles of responsible breeding

- Dogs used for breeding should be healthy and in good general condition.
- Breeders must have sufficient knowledge of all areas relevant to breeding, such as genetics and hereditary diseases, pregnancy, the birthing process and puppy development.
- Dogs should undergo a veterinary examination before being used for breeding. This includes carrying out any tests that are appropriate for the individual animals, such as X-rays, cardiac ultrasounds or genetic tests.
- When selecting suitable breeding dogs, the animals' behaviour should play an important role.
- The accommodation, diet, husbandry and care of the dogs used for breeding and their puppies must be organised in such a way that the animals' physical and behavioural needs are met.
- A sufficient number of knowledgeable carers must be available.
- Puppies may only be handed over to people who can be expected to provide them with a suitable home. There should be a personal meeting in the puppies' home environment in the presence of the mother dog.

2. Selection of suitable breeding animals

Prevention of hereditary diseases

Prevention of hereditary diseases Animals used for breeding should be healthy and in good general condition. Responsible breeding selection requires knowledge of the respective disease predispositions and protective traits present within the population (i.e. diseases that occur more or less frequently within the population compared to the average).

Based on known predispositions to disease, animals intended for breeding should be examined using appropriate methods prior to breeding to determine whether the animal is affected by the respective disease. In doing so, the prevalence of the respective diseases, the reliability of the tests and the associated burden on the animals must be taken into account.

The Task Force generally recommends that dogs be examined at least once by a veterinarian for diseases potentially relevant to breeding prior to breeding use. If a mating has produced puppies with a probable or confirmed hereditary disease, this mating should not be repeated. In addition, an assessment should be made as to whether the breeding animals from whose mating puppies with a hereditary disease have resulted can be used in other matings, or whether they should be completely excluded from breeding.

Genetic screening tests, which allow hundreds of genes to be screened simultaneously for variants and mutations, are becoming increasingly affordable and readily available for dogs. Their use in dog breeding is generally advisable; however, interpreting the test results requires knowledge and must be carried out professionally.

For the sake of genetic diversity, it is essential to ensure that no dogs are excluded from breeding on the basis of mutations that are irrelevant to the population in question or the planned mating.

Avoiding phenotypic extremes

Phenotypic extremes such as extreme brachycephaly can be associated with serious health and welfare issues. Dogs suffering from health problems due to extreme body shapes should not be used for breeding. Furthermore, matings should be selected in such a way as to avoid excessive phenotypic extremes in the offspring.

The definition of where health-related phenotypic extremes begin varies considerably. For this reason, the health impact on the individual animal should be taken into account, as should the current scientific literature.

Scientifically validated testing methods, such as the Respiratory Functional Grading Scheme (RFGS) developed by the University of Cambridge, can make an important contribution in this regard. Given the potential for serious health implications, dogs of extremely brachycephalic breeds should,

as a general rule, only be bred if necessary health testing has been performed. Cross-breeding with dogs of other breeds can be a very effective means of avoiding phenotypic extremes in the offspring.

Inbreeding and Genetic Diversity

Mating between full or half-siblings, as well as mating between fathers and daughters, mothers and sons, or grandparents and grandchildren, must not be carried out. Furthermore, care should be taken in breeding to avoid mating animals that are closely related.

The existing genetic diversity in breeding populations should be utilised and preserved. To avoid unnecessarily restricting the gene pool, as few animals as possible should be excluded from breeding for reasons unrelated to health. Where hereditary diseases are increasingly observed in conjunction with a narrow gene pool, options for increasing genetic diversity (in particular outcrossing programmes) should be considered.

When determining genetic diversity or the inbreeding coefficient, genomic methods are preferable to computational methods based on pedigrees, as the latter can yield inaccurate results. If computational methods are used, they should take into account as many parental generations as possible in order to provide a meaningful result. If computational methods are used to determine the inbreeding coefficient, matings with a calculated inbreeding coefficient of > 12.5% (calculated over at least six generations) should be avoided.

Excessive use of individual stud dogs for breeding can lead to a significant reduction in the gene pool within a short period of time. For this reason, as large a number of healthy male dogs as possible should be used for breeding. To achieve this aim, a male dog should generally sire no more than 5% of the total number of puppies in the respective breed population within a five-year period.

In all measures aimed at maintaining or increasing genetic diversity within a population, the overall situation of that population should be taken into account (population size and health, occurrence of hereditary diseases, value of certain breeding animals to the population, etc.).

When identifying matings that are appropriate from the perspective of genetic diversity, laboratory tests can be helpful in identifying suitable mating partners.

Management of carriers of monogenic hereditary diseases

Where monogenic hereditary diseases occur to a significant extent within a population, existing genetic tests validated for that specific population should be used to prevent the occurrence of monogenic defects in the offspring. The mating of two animals that are carriers of a specific monogenic autosomal recessive disorder must be avoided.

As it must be assumed that every mammal is a carrier of various alleles associated with the occurrence of hereditary diseases, and as the exclusion of numerous animals that are in principle suitable for breeding would have negative effects on genetic diversity within the breeding population, a general exclusion from breeding of carriers of monogenic genetic defects is not advisable.

The use of genetic tests that have not been validated for the respective population should be viewed critically. In particular, it should be noted that certain alleles do not have the same effect on the phenotype in all populations.

Behaviour

When selecting breeding animals, their behaviour must be taken into account. To determine which dogs are suitable for breeding based on their inherited and acquired behavioural repertoire, consideration should be given to both their own circumstances and the living conditions and areas of use of the planned offspring.

Companion dogs, in particular, should be friendly towards people and other animals and feel at ease in a domestic environment and in close contact with people. Dogs that are excessively fearful or aggressive should not be used for breeding.

Frequency of breeding, age for breeding

A bitch should not have more than two litters within a 24-month period. When deciding whether a bitch that has already had one or more litters should be used for breeding again, the course of previous pregnancies and puppy rearing must be taken into account, as must the bitch's current state of health. In cases of doubt, veterinary advice should be sought.

The age of breeding dogs can affect their health and fertility, and thus also influence the health and care of the pup-

pies. The exact age at which dogs can be used for breeding depends, among other things, on the breed. As a general rule, bitches should not be used for breeding until they are at least 15 months old, and dogs from the age of 12 months. For bitches of certain (particularly large) dog breeds, breeding is only recommended from the age of 18 or 24 months.

A veterinary examination prior to breeding is advisable. For breeding animals aged 8 years or older (6 years or older for large breeds), a preliminary veterinary examination should always be carried out. The use of healthy older dogs for breeding can be very valuable in individual cases, particularly to reduce the incidence of diseases that only occur in later stages of life. Older bitches should be carefully examined for possible fertility and birthing problems, and the advantages and disadvantages of breeding should be weighed up.

Breeders must continue to take responsibility for the animals used for breeding even after their breeding programme has ended. This means that, as a rule, the breeding animals remain with the breeder beyond the duration of the breeding programme and are cared for and looked after there for the rest of their lives. In some cases, it may also be advisable to rehome the animals with another responsible owner 1 March 2026 Page4 /4 www.tgh-hundegesundheit.de who will take over the lifelong care and looking after of the breeding animals once their breeding programme has ended.

3. Health checks for parent dogs and puppies

Health checks

Parent animals must be presented to a vet before their first breeding cycle. In addition to a general clinical examination, as outlined above, it may also be advisable to carry out further health examinations tailored to the breed (e.g. genetic tests, X-rays, echocardiography, exercise tests). An overview of the health examinations appropriate for the respective breed can be found in veterinary literature, recommendations from veterinary associations and the breeding regulations of responsible breed clubs.

Pregnant bitches should be examined by a veterinarian at appropriate intervals during pregnancy. If puppies or the mother show signs of health problems after birth, a veterinarian must also be consulted.

Vaccinations and parasite prevention

Breeding animals should, at the time of mating, be up to date with their vaccinations in accordance with the current recommendations of the Standing Committee on Veterinary Vaccination (StiKo Vet). In individual cases, it may be advisable to deviate from the StiKo Vet recommendations based on the assessment of the attending veterinarian. Furthermore, breeding animals should be free from parasitic diseases at the time of mating. In this regard, reference is made to the recommendations of the European Scientific Council on Companion Animal Parasites (ESCCAP).

4. Natural mating/artificial insemination

Mating must be carefully planned and closely monitored to ensure that the bitch and dog are protected from injury or disease. At least one gynaecological examination of the breeding bitch is advisable. After mating has taken place, breeders check both dogs for any injuries. Forced mating is to be avoided. If a long journey is required for mating, the schedule should be arranged so that the bitch can acclimatise before mating.

Animals that are incompatible in terms of body size, body proportions or behaviour should not be mated. Mating dogs with very different body types can increase the risk of complications during the birthing process.

Determining the optimal mating time

Conducting a professional assessment to determine the optimal time for mating can significantly improve the chances of a successful mating. By determining the optimal time for mating, the number of matings can be reduced. The bacteriological examination of a vaginal swab, which is often requested as part of determining the mating time, is not advisable if there are no indications of pathological conditions (such as signs of inflammation), as it can lead to unnecessary use of antibiotics.

Artificial insemination

Dogs used for breeding should be capable of reproducing naturally. Accordingly, artificial insemination should generally only be carried out on animals that have already reproduced naturally or where a veterinary examination has established that natural birth is generally possible.

In principle, artificial insemination should only be carried out where there is a valid reason. Valid reasons for carrying out ar-

tificial insemination include, in particular:

- improving genetic diversity through the use of frozen semen from animals located at a distance
- breeding to prevent diseases that occur in later stages of life by using frozen semen from healthy, older animals
- Avoiding long journeys, particularly for animals that do not like being transported.
- If a bitch cannot be mated naturally, this is NOT a reasonable reason for artificial insemination.

5. Carers of breeding animals and puppies

Expertise

The welfare of dogs in human care depends to a large extent on whether the people looking after them treat them in a manner appropriate to their needs. Appropriate care requires sufficient expertise. Higher standards must be set for those who look after breeding dogs and their puppies, as a lack of expertise can have fatal consequences for both the breeding dogs and the puppies. In particular, carers of breeding dogs and puppies should have sufficient knowledge in the following areas:

- Genetics
- Disease predispositions and protective traits of the breed under their care
- Appropriate tests to prevent relevant hereditary diseases
- The normal course of pregnancy and birth
- Normal puppy development
- The early detection of and correct handling of sick animals
- Animal-friendly care of puppies
- The nutrition of pregnant bitches, nursing bitches and puppies
- Cleanliness and hygiene
- The legal requirements applicable to them.

To ensure that the necessary knowledge is in place, dog breeders and other carers of breeding dogs and puppies should regularly undertake appropriate training on the topics mentioned. A wide range of courses is available from various private providers and breeding clubs. The members of the task force believe that the introduction of a mandatory certificate of competence for dog breeders is necessary. To ensure practical implementation, the existing training programmes

mentioned above could be utilised, provided they are certified as suitable by a central regulatory body.

Number of carers

Animal-welfare-appropriate care must be ensured by competent carers. To this end, a sufficient number of such individuals must be available. With regard to the legal minimum standards applicable in Germany, reference is made to the relevant provisions (in particular Section 3) of the Animal Welfare Dog Ordinance (TierSchHuV).

Housing

The type of accommodation must be adapted to the physical characteristics, needs and behaviour of the dogs being bred. Dogs and puppies that will be kept in close contact with humans later in life should ideally live in the breeder's home so that they are familiar with the domestic environment and human activities and feel at ease there.

In all cases, dogs must have sufficient outdoor exercise as well as the opportunity to retreat to an area where they are protected from the weather. Breeding dogs and puppies should be provided with a varied, complex and stimulating environment so that they can express their natural behaviour. All areas accessible to dogs must be safe for them.

Although adult dogs can tolerate a wide range of temperatures, their regular living environment should be kept at a comfortable temperature for them. Puppies require higher temperatures, particularly in the first 10 days after birth, as they are not yet capable of regulating their body temperature effectively. It can be beneficial for dogs to have access to different temperature zones, so that they can determine their own ambient temperature within a certain range.

Accommodation at birth

When giving birth to her puppies, a bitch must have access to a quiet, safe area to which other animals have no access. Depending on the size of the dogs, a whelping box should be provided in this area a few days before the birth, so that the bitch can become familiar with it in good time before giving birth.

The sides of the whelping box should be high enough to prevent the puppies from falling out. It should be large enough to allow the mother dog to stretch out fully. The area in question and the whelping box should be as comfortable as possible for the bitch and the puppies, and easy for the breeder to clean.

6. Nutrition

Dogs should be fed according to their individual needs to meet their requirements. Factors such as breed, activity level, age and state of health must be taken into account. In the context of breeding, special requirements apply to the feeding of both the pregnant bitch and the nursing bitch, as well as to the feeding of puppies. Pregnancy or lactation are associated with increased energy and nutrient requirements in the bitch. The diet must be adapted to the stage of pregnancy/lactation/litter size and to the bitch's body condition.

In many cases, feeding a high-quality complete feed tailored to the individual dog's needs is a good way of ensuring a diet that meets their requirements. Feeding nutritionally appropriate, hygienically sound, homeprepared diets to pregnant bitches, nursing bitches and puppies at all stages is complex and requires appropriate knowledge. With regard to suitable nutrition for pregnant and nursing bitches, puppies or animals with relevant medical conditions, it is often advisable to seek veterinary advice.

Pet food should be stored and prepared in a clean place, protected from pests and in accordance with the manufacturer's instructions. Uneaten wet food should be removed before the next feeding, and uneaten dry food should be removed after 24 hours at the latest. Access to fresh drinking water should be available at all times. Separate, clean containers made of suitable material (e.g. stainless steel or ceramic) should be used for food and water.

During pregnancy and after the puppies are born, it is important to monitor the animals' food and water intake and to document this where possible. The puppies' weight gain must also be monitored and recorded in writing. If any abnormalities are noticed in food or water intake or weight gain, veterinary advice should be sought.

7. Observation, record-keeping, identification and registration

The welfare of breeding dogs and puppies must be checked regularly throughout the day. If signs of abnormal behaviour or illness are noticed, a vet must be consulted. Breeders must keep complete and accurate records of breeding animals and puppies. Both the dogs used for breeding and the pup-

pies must be clearly identified, usually by the implantation of a transponder/microchip, and registered in a pet register to ensure lifelong traceability. The records to be kept by a breeder should, in particular, contain the following information regarding the dogs used for breeding and their puppies:

- Name of the animals
- Date of birth
- Unique identification/registration number
- Sex
- Breed
- A photograph or other documentation of distinguishing features
- Registration number with a breeding association (if applicable)
- All veterinary examinations and treatments carried out (including vaccinations and parasite treatments)
- Names of the parents
- Health checks carried out on the parents and puppies, and the results of these checks
- Date of mating
- Details of the mating or insemination, and any complications that may have arisen
- Course of pregnancy, number and health of the puppies following mating
- Any deformities observed in the puppies
- Date of handover of puppies
- Name and address of the future owner
- Records of food intake and weight development

8. Meeting the puppy buyers and handover

The internet is a suitable platform for initial contact between breeders and prospective puppy buyers. However, it is by no means a suitable substitute for a face-to-face meeting where the parties involved can get to know one another. Accordingly, before the puppy is handed over by the breeder, prospective owners should, where possible, visit the puppy several times in its home environment in the presence of the puppy's mother.

During these face-to-face meetings, the breeder should endeavour to ensure that the new owner is a good match for their future puppy, understands the puppy's needs and is able to meet them, and that the puppy can be expected to receive appropriate care throughout its life.

Breeders should provide new dog owners with comprehensive information on the puppy's future needs. This includes, amongst other things, the following points:

- Advice on the puppy's current and future diet (including, where possible, the provision of a supply of the food previously fed)
- Advice on further training and socialisation
- Advice on settling into a new environment

Breeders should also be available to offer advice after the dog has been rehomed and should check in regularly with the new owner during the first few months to enquire about the development and health of the dog.

Puppies must be placed in responsible hands. If this is not possible, it is the breeder's responsibility to ensure their continued care and welfare. In the event that, after the puppy has been handed over, circumstances arise whereby the new owner is unable to keep the puppy, breeders should be prepared to take the puppy back. This can be achieved, for example, by agreeing a right of repurchase.



The Healthy Dog Breeding Task Force is an independent association of experts in veterinary medicine and genetics. Its aim is to compile and provide practical, real-world applications of scientific knowledge relating to animal breeding, so that this information can be utilised and put into practice by veterinarians and breeders.

On behalf of the Healthy Dog Breeding Task Force:

Dr. Jan-Peter Bach

Prof. Dr. Andreas Moritz

Dr. Tina Brahm

Dr. Anne Posthoff

Dr. Nele Eley

Dr. Friedrich Röcken

Prof. Dr. Sandra Goericke-Pesch

Dr. Thomas Steidl

Dr. Viola Hebeler

Dr. Bernd Tellhelm

Prof. Dr. Christiane Herden

Prof. Dr. Holger Volk

Dr. Jan-Gerd Kresken

Prof. Dr. Dr. h.c. Axel Wehrend

Prof. Dr. Tosso Leeb