

# Digestive System and Feeding Habbit of Canine (*Canis familiaris*)

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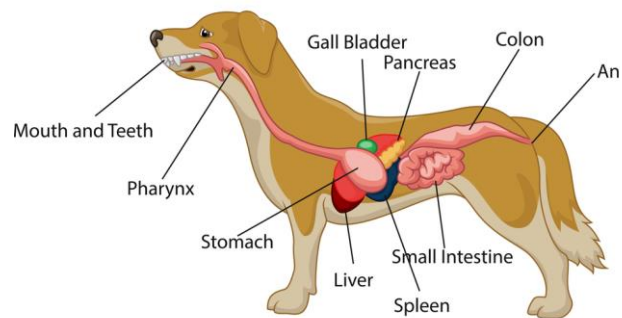
## Origin And Domestication of Dog

*Canis familiaris*, the scientific name for the dog, is the only member of the Canidae family that can be regarded to be completely domesticated. This is because the dog is entirely a domesticated animal. The dog, which is referred to as *Canis familiaris* in the scientific community, is one of the few members of the Canidae family that may be said to be completely domesticated because of its behaviour. The wild ancestor of *Canis familiaris* that is immediately linked to it has been the subject of a great deal of study. During a certain time period, people held the belief that the dog was a descendant of the wolf. Certain types of dogs were said to have originated from the golden jackal, while other breeds, which he referred to as "lupus" breeds, were directly derived from the wolf. This information was made public. The process of breeding wild canids, which includes wolves, coyotes, jackals, and other canids, is known as canid breeding. Throughout the 1940s, an ethologist by the name of Konrad Loren, who was later given the Nobel Prize, was active in his field. Linnaeus, on the other hand, was of the opinion that the dog belonged to a different species. This was due to the fact that the dog had an upturned tail, which was a characteristic that was not seen in any other canid. Michael Fox, a specialist in the study of dogs and wolves, has lately developed a concept that is commonly referred to through the term "missing link." According to him, the dog is a descendant of a European dingo-like dog that has since went extinct. He believes that this dog is a descendant of the old dog. In accordance with the information that is currently available in the domains of behavioural, morphological, and molecular biology, the wolf, which is also known as *Canis lupus*, is the primary wild ancestor of our modern-day dog. The underlying social nature of both wolves and dogs, as well as the manner in which they communicate with one another through facial expressions and vocalisations, is one of the most major shared characteristics between the two species. The vast majority of academics are in agreement that the dog was initially domesticated and selectively bred within the context of a culture that was mostly composed of people who engaged in hunting and gathering. The earliest remains of a tamed dog that have been found have been dated to dates that are roughly 12,000 to 14,000 years before to the discovery of the fossils. A mandible was found in a late Paleolithic tomb in Oberkassel, Germany, and it is considered to be one of the first discoveries

of a domesticated dog. The age of this mandible has been determined to be 14,000 years before the present (BP), which is two thousand years earlier than the sites in western Asia where a collection of canid remains has been identified as belonging to *Canis familiaris*.

**A dog's digestive tract is designed to assist in the digestion of food and the absorption of nutrients. These are the components that make up the whole:**

- **Mouth and teeth:** The mouth and teeth are utilised in the process of tearing and chewing food into smaller parts or fragments. In contrast to humans, dogs come equipped with canine teeth, which restrict them from moving their mouths from side to side. Additionally, they have salivary glands that produce saliva in order to moisten and lubricate the food that they consume.
- **Esophagus:** The oesophagus is a muscular tube that connects the mouth to the stomach. It is also known as the "food pipe." By contracting and relaxing in a wave-like motion known as peristalsis, it is able to transfer food more efficiently.
- **Stomach:** The stomach is an organ that resembles a sac and is responsible for storing food and breaking it down. It does this by secreting gastric fluids, which are full of enzymes and acids that are used to breakdown fats and proteins. Additionally, the stomach possesses a coating of mucus that acts as a barrier, preventing the acid from causing any damage to the stomach.
- **Small intestine:** The term "small intestine" refers to a tube that is both long and narrow, and its primary function is to absorb nutrients from the food that is consumed. The duodenum, the jejunum, and the ileum are the three portions that make up this organ. Pancreatic juice and bile, both of which are produced by the pancreas, are transported to the small intestine from the liver and gallbladder. These substances aid in the digestion of carbohydrates and lipids. Additionally, the small intestine is composed of villi and microvilli, which are minute projections that make the surface area available for absorption more substantial.
- **Large intestine:** The large intestine is a tube that is shorter and wider than the small intestine, and it is responsible for absorbing water and electrolytes from the food that is consumed. There are four pieces that make up this organ: the anus, the colon, the rectum, and the cecum. Not only does the large intestine contain helpful bacteria, but it also ferments some of the food that has not been digested, which results in the production of vitamins and short-chain fatty acids. Feces are produced by the large intestine, which then eject them through the anus.



**The eating habits of canines can vary depending on a number of factors, including the following:**

- **Breed:** Different breeds have been bred for different purposes, and distinct breeds have different nutritional requirements because of this. When compared to companion dogs, for instance, working dogs could have a higher calorie requirement.
- **In terms of age,** it is important to note that puppies require more frequent feedings than adult dogs, and that senior dogs may require a different diet than younger dogs.

- According to their degree of activity, dogs who are more active will have a greater requirement for food than dogs that are less active.
- When it comes to their health, dogs that have certain problems may require a different diet.
- The majority of the time, however, dogs are omnivores, which means that they are able to consume both meat and foods derived from plants. Protein, carbohydrates, fat, vitamins, and minerals should all be included in their diet. Their diet should also include a variety of other nutrients.

**The following is a list of some of the dogs' most often consumed foods:**

Providing your dog with food in this manner is the most convenient method, and there is a wide variety of commercial dog food available for you to choose from. It is possible to purchase commercial dog food. When you are in the process of picking a commercial dog food, it is of the utmost importance to ensure that the food you purchase is appropriate for your dog in terms of its age, breed, and the amount of activity it engages in.

Not only is meat an excellent source of nourishment for dogs, but they also take pleasure in eating it. A dog's favourite food is meat. However, due to the presence of potentially harmful germs in raw meat, it is vital to make sure that the meat is cooked before feeding it to your dog. This is particularly important because raw meat might contain bacteria.

Both fruits and vegetables are excellent sources of fibre, vitamins, and minerals for dogs. Fruits and vegetables are also a good source of nutritional value. On the other hand, it is of the utmost importance to give youngsters with vegetables and fruits in moderation, since the consumption of an excessive amount of these foods may result in concerns regarding the stomach.

Even though it is acceptable to give your dog table scraps on sometimes, it is necessary to make sure that they are not harmful to them before giving them to them. Table scraps might be harmful to your dog. Due to the fact that chocolate, grapes, raisins, onions, and garlic are all potentially harmful to dogs, there is no reason for them to consume any of these foods.

If you want to know the most efficient way to feed your dog, it is imperative that you discuss the matter with your veterinarian. It is possible that they will be able to provide you with assistance in formulating a diet that is tailored to meet the specific needs of your dog.

To further assist you in feeding your dog, here are some extra tips:

- Feed your dog at consistent intervals throughout the day.
- Avoid giving your dog an excessive number of treats.
- Check that your dog has access to a sufficient amount of clean water to drink.





- In the event that you observe any shifts in the eating patterns of your dog, it is imperative that you consult with your veterinarian.

### Feeding

- When it comes to the feeding of dogs, it is highly challenging to recommend a strict and consistent routine.
- When it comes to feeding their dogs, it is always preferable for individual dog owners to feed their dogs the same food materials that are typically created in the house rather than producing food that is specifically designed for dogs.
- Between the ages of six and eight weeks, the puppies are weaned off of their dam.
- Following weaning, a mixture consisting of cow's milk (250 ml), water (125 ml), egg yolk (one), and glucose (half teaspoon) would be an excellent replacement for the dam's milk. This mixture would be administered at regular intervals. Dogs can benefit from drinking goat's milk.
- It is possible that the wailing of the pup will be caused by the separation from its dam for a period of two to three days after it has been weaned.
- Although it is common practise to give the idea that the puppy is crying because it is hungry, you should never give them an excessive amount of milk and biscuits, as this might cause indigestion.

### Feeding Schedule with Home Made Food

Months	No. of times
1-2	6 times
2-3	5 times
3-4	4 times
4-5	3 times
5-7	2 times

- In the early stages of puppyhood, it is possible to feed your puppy rusk, fresh bread, high-quality dog biscuits, eggs, soup, and porridge (which may be made by cooking wheat flour, oats, ragi, or soybeans in milk).
- At the end of the third month, you should gradually transition to the dietary articles that you are able to purchase on a daily basis.
- Beginning in the second month, make sure to feed meat that does not include a lot of fat.
- To the greatest extent feasible, or at the very least up to the age of six months, you should refrain from feeding your dog the so-called "Dog Meat" that is available from the market or slaughterhouse.
- The emergence of a potbelly is caused by feeding rice to a puppy while it is still young; thus, it is recommended that you start feeding rice to your puppy after it has reached the age of three months.
- It is recommended that an adult animal consume one square meal each day; however, many owners choose to provide their animals with scraps, a cup of milk or tea, or an egg first thing in the morning.
- Since dogs have a tendency to sleep after a big meal, it will be best to provide the main meal occasionally in the afternoon rather than during the night. This is because the dogs tend to sleep after eating a lot.



- It is possible to make the meal more digestible and pleasant by cooking it or warming it after it has been chopped into tiny pieces.

#### Principles of Feeding Dogs

- Meat must make up at least thirty percent of the diet, while the other ingredients must include grains, vegetables, milk, eggs, bread, and other such items.
- Minerals are essential for the dog, and there are at least fifteen that are known currently.
- When it comes to developing and breastfeeding animals, the function that calcium and phosphorus play is really significant, and the necessity of vitamins is also very vital.
- The pre-weaning stage is the beginning of the time when it is required to begin taking mineral and vitamin supplements.
- Providing the puppy with a huge bone to chew on is a good technique that should be followed.
- In addition to providing a supplement of calcium and phosphorus, it assists in maintaining the cleanliness of the teeth and has the potential to prevent indiscriminate biting until the establishment of the permanent teeth. Bone made of leather is an excellent alternative.

Body weight	Approximate requirement of feed in kg (30% of DM)
2.5	0.30
5.0	0.50
7.5	0.63
15.0	1.20
22.5	1.73
32.0	2.45
50.0	3.83

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