A Comment
to the
NEWFOUNDLAND DOG STANDARD

A Comment to the Newfoundland Dog Standard

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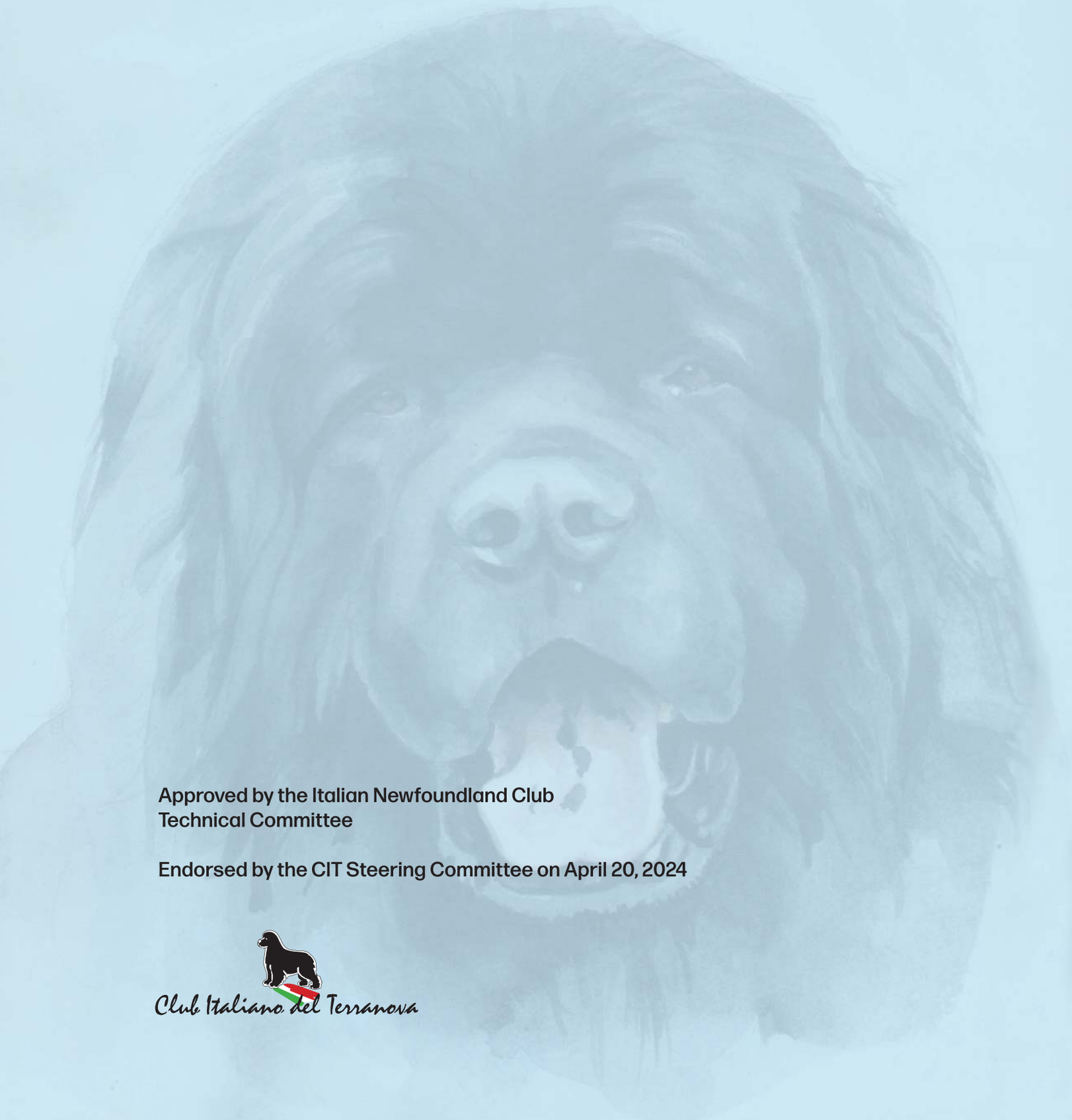


Approved by the Italian Newfoundland Club
Technical Committee

Endorsed by the CIT Steering Committee on April 20, 2024

Club Italiano del Terranova

Introduction

The concept of race arises when a group of subjects belonging to the same species, by virtue of environmental, historical, geographical or use conditions, acquires the ability to reproduce certain features with a certain degree of consistency.

However, the mechanism of feature transmission is such that considerable variations can occur from a homogeneous average.

To avoid such deviations and actual modifications in the breed, and to create more accurate evaluation criteria, standards were created.

Each standard is under the protection of its country of origin. For the Newfoundland, such country is England; in fact, even if today the island of Newfoundland constitutes an integral part of Canada, at the time of the acknowledgement of the breed, in 1886, it was an English colony.

The English standard is recognized in all FCI (International Cynological Federation) member countries, of which Italy is part; the USA and Canada, not being part of FCI, use their own standards instead.

FCI Standard N° 50 / 06.11.1996
Newfoundland

Origin: ..... **Canada**

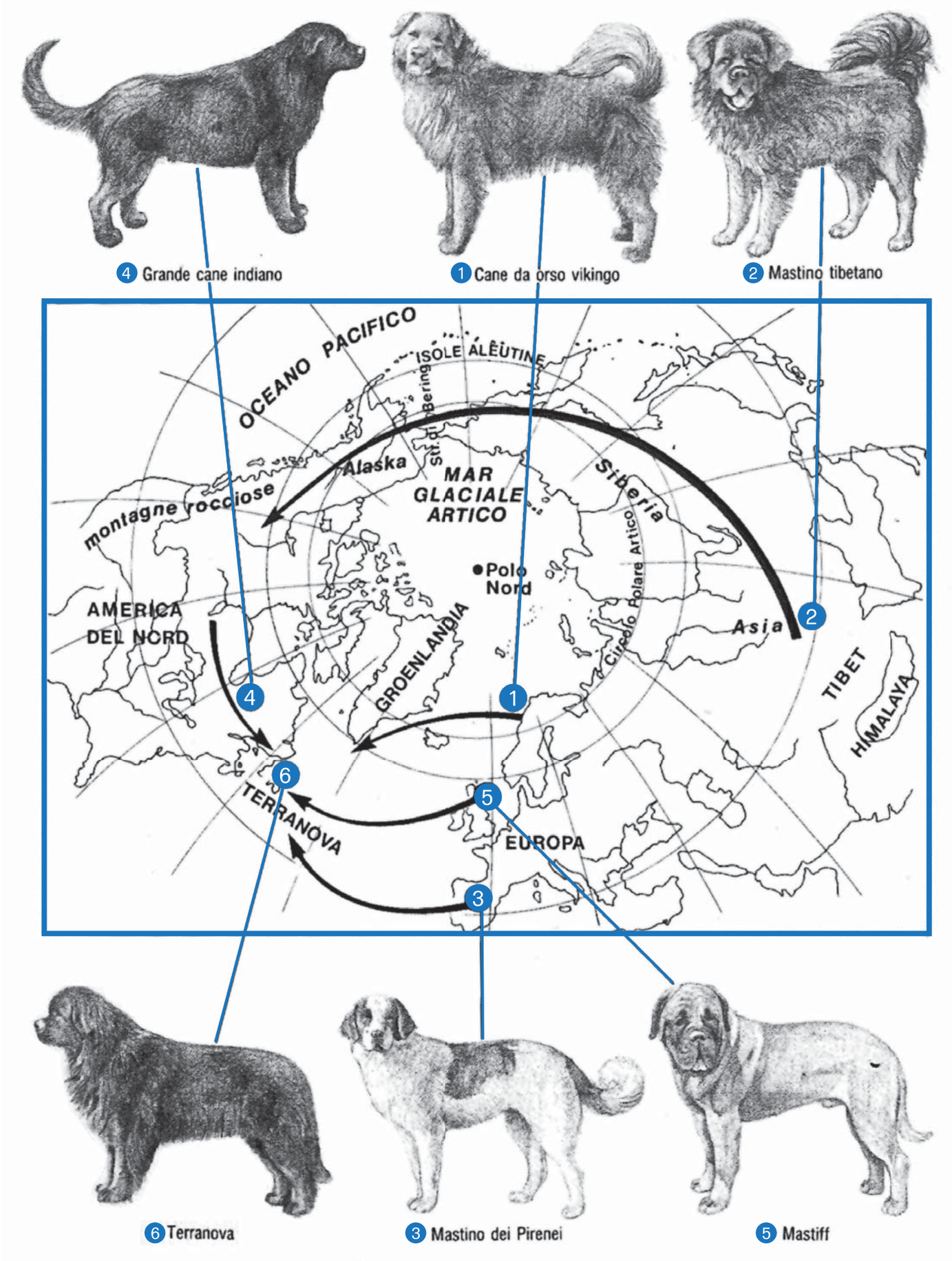
Publication date of the original current standard: **29/10/1996**

Use: ..... **heavy load towing dog, water dog**

F.C.I. classification:

Group 2
Pinscher and Schnauzer type dogs, Molossoids, Mountain Dogs and Swiss Cattle Dogs

Section 2.2
without working trial


4 Grande cane indiano
1 Cane da orso vikingo
2 Mastino tibetano
OCEANO PACIFICO
ISOLE ALEUTINE
Str. di Bering
Alaska
montagne rocciose
MAR GLACIALE ARTICO
Siberia
Polo Nord
Circolo Polare Artico
AMERICA DEL NORD
GROENLANDIA
Asia
TIBET
HIMALAYA
TERRANOVA
EUROPA
6 Terranova
3 Mastino dei Pirenei
5 Mastiff

History

The Standard

"The breed originated in the island of Newfoundland from indigenous dogs and the big black bear dog introduced by the Vikings after the year 1100. With the advent of the European fishermen, a variety of new breeds helped to shape and reinvigorate the breed, but the essential characteristics remained. When the colonization of the island began in 1610, the Newfoundland Dog was already largely displaying its proper morphology and natural behaviour. These features allowed it to withstand the rigours of the extreme climate and sea adversity while pulling heavy loads on land or serving as a water and lifeguard dog.".

The Newfoundland Dog is an ancient breed selected by nature based on the living conditions on the island from which it takes its name. Its key features are closely intertwined with the concept of functional morphology.

Originating from the Great Indian Dog of the Algonquians and Sioux, derived from the Tibetan Mastiff and probably from crossings with the Viking bear dog, its initial stock underwent hybridism with the dogs carried by the European sailors on their ships (Molossians and hunting dogs). For sure, its history has something to do with the Retrievers from the North American coasts: both have a fondness for water and a gentle temperament. A well-structured breed was defined from this melting pot based on functional, morphological and temperamental features.

The island of Newfoundland, discovered by Caboto in 1497, was colonised in the following centuries with alternating fortunes by the English and French, attracted by the wealth of ishing banks and timber. These strong and robust dogs, endowed with a marked instinct for swimming and retrieving, a weatherproof coat and, above all, a docile and perspicacious personality, must have been of great help to the islanders, who used them in fishing and hunting-related activities or to tow carts and sledges loaded with tree trunks; moreover, islanders were also frequently rescued by them.

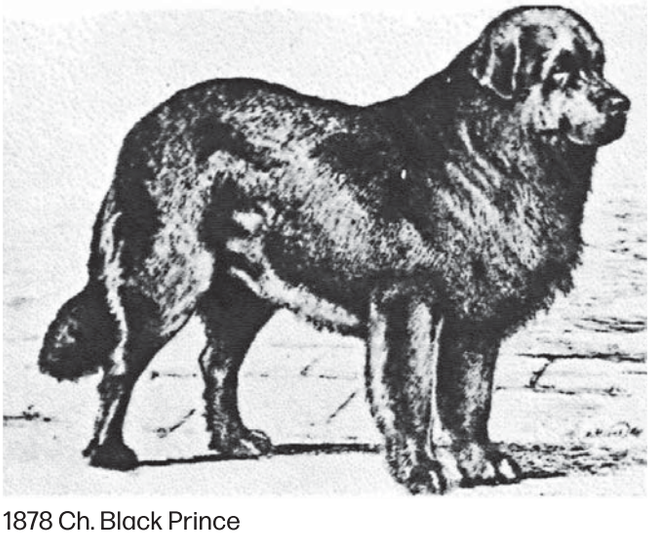
Hauling timber in the Yukon

Soon, the fame of these dogs began to travel with the ships that plowed the Atlantic and carried them.

Thus the breed spread in Europe, although the search for more showy subjects, increasingly large-sized and heavy-boned, initially lead once again to the introduction of other Molossians in the original stock. The colour black underwent additions of colours of all kinds: brown, black and white, white and brown, black and tan, grey, and often of tails curled towards the back. However, the key features of the breed, which by then had become well structured, were preserved. In the 18th Century, the Newfoundland dog was known and appreciated for its beauty and temperament and was chosen as a companion by personalities like Napoleon, Capt. Cook, Scott, Byron, Wagner, Landseer...

From "Enciclopedia popolare illustrata in 1887"

In the 1800s, while the breed was rarefying on the island due to laws and exports, it began to be bred in Europe and was selected by a good number of amateurs: registrations in the Origin Books began.
The year 1886 witnessed the establishment of the English Newfoundland Club, which drew up the first Standard. While concise, this Standard provides an accurate description of the breed that is consistent with the current FCI, American and Canadian Standards.
A picture from 1878 shows Ch. Black Prince, a subject whose Type is up to the minute, carrying the key features described in the Standards: a rounded skull, a broad forehead, small deep eyes distant from each other, a square and clean-cut muzzle, a broad nose, a soft but not drooping lip, well-shaped and well-set ears, a strong neck, a deep and circled chest, a strong bone structure, cat feet, a tail of the right length and correctly carried. It is clear that some build flaws may be noted, perhaps due to the artist's interpretation (a high croup, slightly angulated hindquarters, the dorsal line not properly stretched) but the key features of the Type are all there.



1878 Ch. Black Prince

In the second half of the 19th Century, a more mature dog industry was taking shape for all breeds, with national kennel clubs and breed clubs. The Standard published in England was also a guide to breeders in the continent, and selection was increasingly aiming at obtaining pure and compliant lines. In 1901, Hon. Harold MacPherson, realising that the breed was dying out right in its homeland, established the Westerland Kennel in St. John from some rare local subjects and many good dogs imported from Europe. The Kennel produced great champions of the calibre of Sieger, portrayed on an island's stamp.

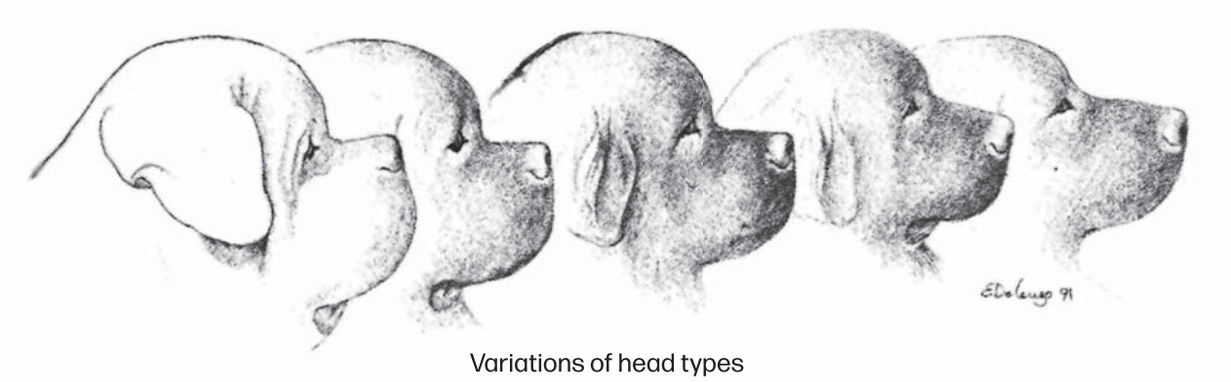
Ch. Westerland Sieger

The First World War hit hard on the breed, which recovered only thanks to amateurs from various countries who managed to restart it through exchanges and some difficult imports from the island of Newfoundland. In 1922 came another famous prototype, Siki, called 'The Father of Champions' due to its excellent reproductive capabilities.

In the 1920s and 1930s, the Newfoundland Dog was well known and present in various families. Eduino Colnaghi founded the 'Società Italiana Terranova' (the Italian Newfoundland Society) in Italy. But once again, the Second World War destroyed a lot of the hard work that had been done until then. At the end of the conflict, finding one of these dogs was hard. Slowly and through exchanges, the few remaining subjects were able to recreate new lines. The blood lines exported from England to America went back to Europe and helped with the recovery. And at this point we can say that we are finally in the present day. In the 60s, a total of 85 puppies were whelped in Italy, with 12 imports. In the 70s, they reached 370 with 63 imports. The peak of litters recorded in Italy was reached in 1996 with 2054 registered puppies.

Ch. Siki

Tracking back the history of the breed allows us to focus on the key features that led to a well-structured Type systematised by Standards with greater precision, requiring compliance by breeders and protection by judges. It is clear that genetics can bring out a whole range of features ranging from the hypertype to the hypotype even in a well-structured breed.



Variations of head types

It is to such variations that we are called to pay the utmost attention so that taste or fashion do not carry us away from what the Breed Standard actually states.
Attributing variations to evolution does not seem to be fair: when man intervenes in the delicate mechanisms of natural selection, his efforts may lead to the need of asserting certain features more that nature would do, thus exasperating them or, even worse, going against natural evolution itself. When such a point is reached, the ideal Type will no longer suffice: the most popular features will be pushed to the extreme without realising, and will create caricatures that have nothing to do with the Type.

This is what has happened in many breeds and even the Newfoundland has often had to deal with an exasperated selection that led to a preference for lymphatic hypertypes, with skin overabundance and consequently drooping lips, wrinkles, folds, visible conjunctivae, dewlap, hyperangulated hindquarters, etc. If, in the 90s and in the first decades of the 2000s, some lines frequently produced such subjects, today we observe a return to a greater balance close to the functional type.

But what is the Type?
Type is the set of features that strongly recalls the image of a breed and is described in the Standard. If one compares the various standards for the Newfoundland Dog (first the English standard, then the American standard, then the Canadian one, and, lastly, the FCI standard), one can see that, although Standards become increasingly accurate in outlining the breed features, they do not deviate from the core description of the same ideal subject. However, the Standard is an abstract ideal that has to come to terms with models, which are real cases, on a daily basis. Of course, stocks, currents and families with specific features may exist, but when variations get to the point of changing the Type due to an overabundance or a deficiency in features, such features transcend the Standard and, as such, must be penalised.

It must be said that variations are not always so evident: there are nuances and degrees heading towards one or the other end of the continuum. Sometimes they are barely visible: flaws end up being assessed leniently or going unnoticed. However, we must not forget that, if a build flaw can be corrected more easily, a defect in Type creeps into the bloodlines, perhaps subtly reappearing at a later stage and creating inhomogeneity in the breed.

Certainly, a much more detailed Standard would provide for less frequent misinterpretations. Expert judges would have a more rigorous tool under their belt, which would encourage breeders to adhere to the Standard more strictly and provide for increased equality in assessing strengths and weaknesses, thus avoiding any discontent.

In all, how could more objective interpretations be achieved? Three basic strategies are available to us:

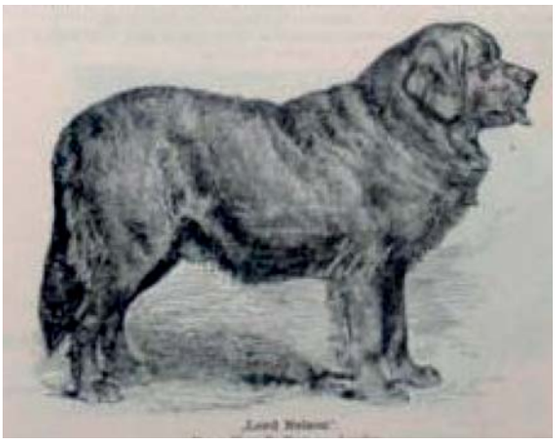
Observing prototypes *in order to educate ourselves about the key features based on which the breed becomes recognisable;*

Studying the relationship between morphology and function *as a fundamental criterion to assess the meaning and usefulness of each and every single aspect;*

Analysing variations *to emphasise the importance of complying with the Standard type in case of features deviating towards typical features of other breeds.*

A further aspect that may be taken into consideration relates to the **concept of animal health***: the result of a selection can never neglect this principle.*

the Prototypes



1883 - Lord Nelson

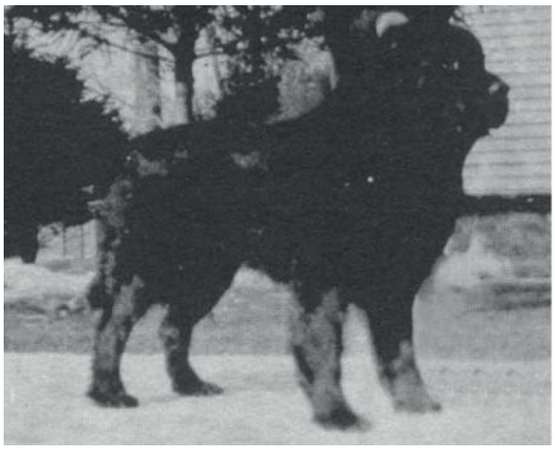
1888 - Boodles Esq.

1893 - Wolf of Badenoch

1893 - Sir Grimbarian

1917 - Shelton King

1921 - Henk van de Negerhut

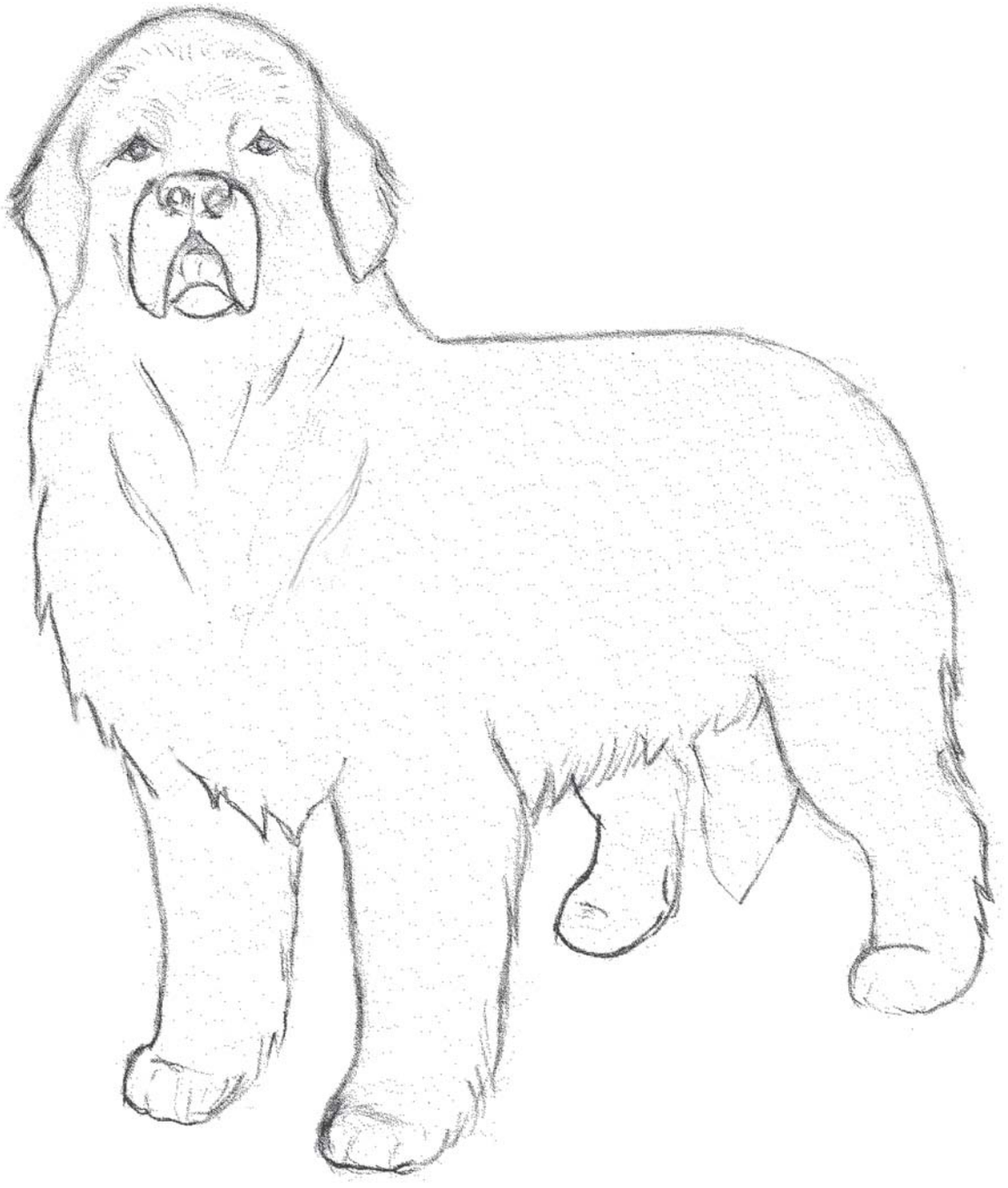


1926 - Shelton Cabin Boy

1936 - Gladiator von Charlottenhof

1949 - Janko von den Peck-Bergen

1955 - Barry vom Grenzberg



General Appearance

The Standard

"The Newfoundland is massive, with a powerful body, well muscled and well coordinated in its movements".

The Newfoundland dog is a large Molossus, with a strong, thick coat. Its sweet and intelligent personality, its passion for swimming and retrieving, its strength and courage have made it famous as a working dog used mainly for the noble purpose of saving people in peril in water.
It is needless to reiterate the many stories of rescues that have occurred at sea and in rivers or the aid that has been given to fishermen and sailors. It is more important to remember that this dog was used to pull lumber and sleds and as a courier.

We can thus imagine it while jumping from one rock to another, while diving, holding tightly in its teeth something to deliver, its back arched, its front legs pointed in indescribable effort. We see it pulling against the weight of its burden, and docilely waiting for the load to be set on its solid back.

Thus, it must be built in such a way that allows it to fulfill these tasks. It must be robust, muscular, with a massive bone structure, very strong but always harmonious, balanced in its every part and free in its movement.

The first thing we notice when looking at a good specimen is its size. Its mass is more important than its height: a solid and strong body with ample diameters that must not give the impression of emptiness or narrowness.

Equivocation over these terms, especially with regard to the race toward gigantism, has often caused great problems. It is hard for subjects who are too large to maintain the proper proportions: the legs become too long, frequently not angled enough, or the head often appears too small and narrow.

All standards agree in defining that "a large size is desirable as long as balance and symmetry are maintained", therefore a large dog must not only be tall on the limbs but must maintain all the proportions required for the breed, under penalty of losing the famous "bear look". On the other hand, care must be taken to avoid an excessive reduction in size in a breed that has always been considered giant and capable of tasks that require considerable strength.

Important Proportions

The Standard

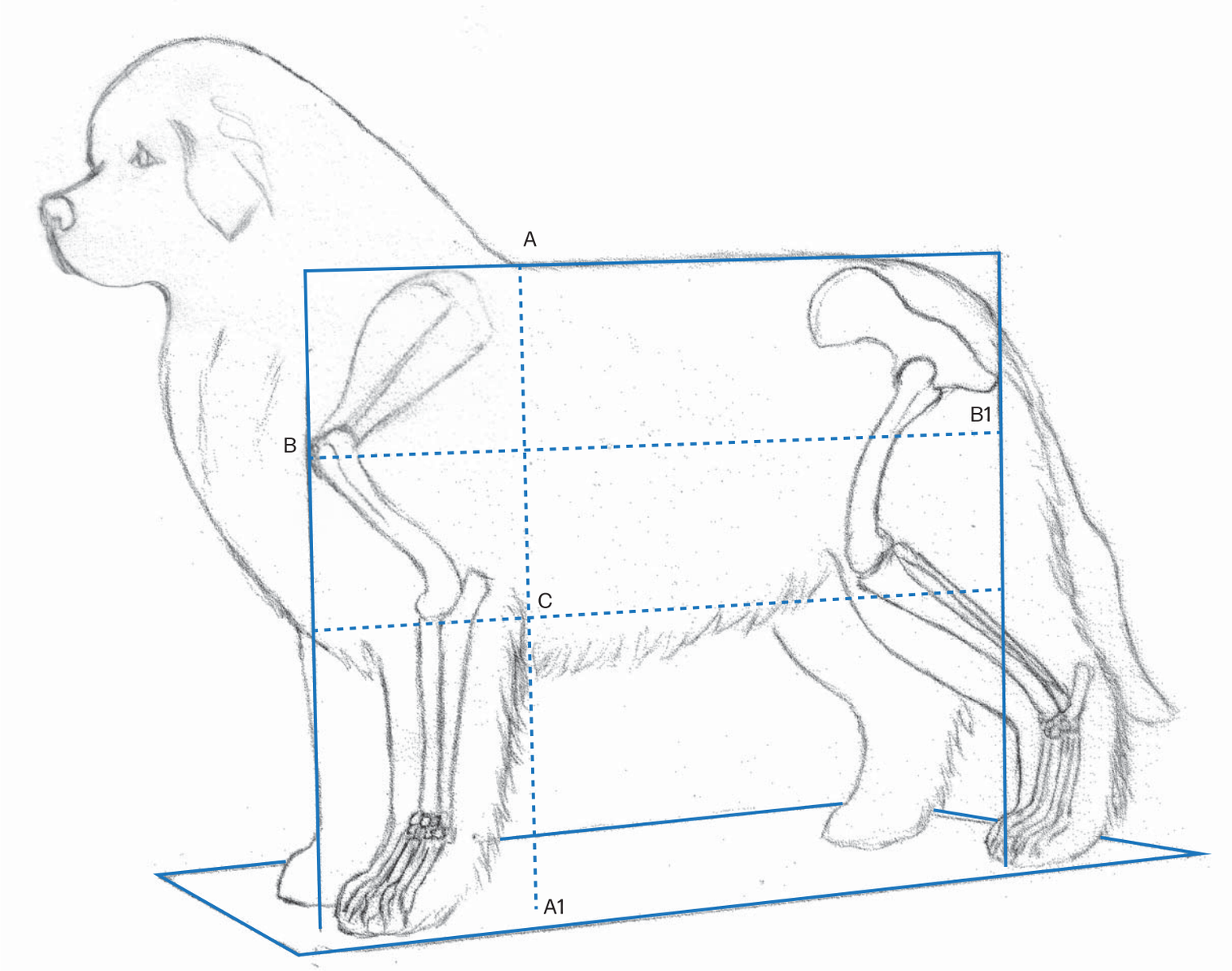
"The length of the body from the point of the shoulders to the point of the buttock is greater than the height at the withers. The body is compact. The body of the bitch may be slightly longer and is less massive than that of the dog. The distance from the withers to the underside of the chest is slightly greater than the distance from the underside of the chest to the ground."

Based on its morphological type, the Newfoundland belongs to the group of trotters. Built in the rectangle, with a capable thorax, bone rays of good length, rightly angled, a well-inclined croup, slightly extended metacarpals and a center of gravity moderately raised from the ground, he must present a development of the transverse diameters such as to give it basic solidity without taking away agility and this applies both on land and in water, allowing excellent flotation.

Its length is approximately one tenth greater than its height. These proportions allow, as we will see, to better develop functional mechanics. A dog that is too long would be unlikely to be able to maintain a tense back profile which would be detrimental to the transmission of the impulse. A dog that is too short would lose the flexibility that is typical of movement on land when walking and which is extremely functional in swimming.

The height of the chest, from the withers to the lower part of the ribcage, must be greater than half the height, going down a little beyond the elbows.
A dog must not appear tall on its limbs nor have short limbs.
An adult subject must be well developed in diameter and with good bones and muscles: he must never lack substance, appear frail or with a tucked-up abdomen.

The bitch can be slightly longer and less massive without losing the features of the Type.



Height: A - A1
Length: B - B1
Thorax height: A - C > C A1

Behaviour – Character

The Standard

"The Newfoundland's expression reflects benevolence and softness. Dignified, joyful and creative, it is known for its sterling gentleness and serenity."

One of the data that most interests those who are approaching the Newfoundland breed is the character. It brings together such important and peculiar characteristics that it appears as an essential factor of typicality.
All standards focus their attention on the benevolent and serene expression, on balance and calmness, until they stating that *"sweetness of character is the hallmark of the Newfoundland and this is undoubtedly the most important characteristic of the breed".*


Desire for contact...

A rescue dog, the Newfoundland is, in life, the companion who watches over the safety of the family where it has to live. However, it knows how to be discreet.
While it appears to be sleeping, its brain follows the small habitual noises, analyzes odors, evaluates messages that inform it on what is happening.
And there it is, ready to jump up if necessary when that sixth sense that arises from attention to the flow of a thousand small details warns it of a need or a danger.

Vigilant, therefore, a nurse for children, inclined to observe before acting, endowed with a patient calmness that makes it wait for the right moment to take action, it never acts by a conditioned reflex but has a strong individual ability to discern the various situations. All these characteristics, added to love for swimming and retrieving, create the most appropriate image of the water rescue dog.

Piero Scanziani, in his book "The Useful Dog", analyzes the components of character, finding its main attributes: reactivity, docility, courage, resistance, temperament, defense impulse, fighting impulse, mordacity, vigilance.
By analyzing these terms more deeply, we will try and penetrate the mind of the Newfoundland as much as possible.

Reactivity: This term refers to the resistance that the dog offers to unpleasant external factors. In Newfoundlands it is well developed and this enables them to face situations of danger and extreme effort, such as fighting at the mercy of the seas.

The subject who is well equipped with them "*is not dominated by instincts or training but enjoys a strong individual ability to reflect; in short, it is endowed with a strong personality.*".
This is very significant for a water rescue dog. It must not retreat or be intimidated in the face of difficulties or the frightened floundering of those who are drowning, decisively affirming its will to reach the shore. Furthermore, it must be able to decide independently by evaluating the situations from time to time.
It therefore never acts mechanically. This should not be interpreted as stubbornness: it must fully understand what and why we are asking it something but when it has understood this, it will be make the best use of it. The Newfoundland must be trained, never tamed.

Docility: it is the spontaneous submission to the will of man. It should absolutely not be confused with a soft temper; on the contrary, the docile dog offers what he has to its owner out of its own free will. It will never obey out of coercion or fear but out of the desire to collaborate in what is requested.

Courage: there can be no doubts about this side of the character. The courageous is the one who voluntarily faces danger for the wellbeing of others. Well, the Newfoundland is the most classic example. But even when it is not engaged in a heroic act, he shows this virtue in everyday life.
Courage is demonstrated by its calmness and patience. Any dog that is frightened is under the stimulus of the adrenal glands and such a dog may take on a defensive attitude that could be avoided. The Newfoundland's look is instead friendly: if you attack it, it will neither fight back nor escape. It will wait and contemplate the hostility that he does not understand. But if is attacked, it will not retreat, neither before animals nor before man. However, this courage is never recklessness but is permeated by his moderation, so that it will be able to use it in the best possible way.


Water rescue

Resistance: Aside from physical resistance, the term resistance includes the psychological capacity of always finding new forces within oneself. It is obvious how this quality must be amplified in a rescue dog that is also a swimmer. Physical resistance is bolstered by the build of the Newfoundland. Solid bones, powerful muscles and a wide thorax are all anatomical requisites of the breed, but the Newfoundland's calmness and ability to reflect are also essential. As with any able swimmer, it does not use all of its energy immediately, but doses it carefully, finding an inexhaustible energy within itself.

Temperament: is identified with vitality and the speed of response to an outside stimulus. It seems correct to defy certain critics who define the Newfoundland "lazy". Movement with no objective does no interest it. It would never spend the day running between two gates and barking at the shadows, but just invite it to some useful activity, a walk or a refreshing dive and it will jump up happily with great enthusiasm.


... Sweet and benevolent

Defense impulse: it is the speed with which the animal intervenes in defense of its companion. Implicit here is a strong sense of ownership and a certain distrust. This impulse, which pushes the dog to advance threateningly if someone raises an arm in the direction of the owner, would have negative consequences if it were highly developed in a rescue dog. It could in fact lead to a self defense response toward one who is drowning. This instinct is deep and needs a strong stimulus in order to be brought out.


Teamwork

Fighting impulse: this quality is the pleasure of fighting and is totally contrary to the nature of the Newfoundland. It must not become overly excited, because it would not be able to retain the calmness and lucidity needed to fulfil his tasks. Furthermore, it would be impossible for it to do teamwork with other dogs when this is asked.

Calm, attentive, inclined to think before acting

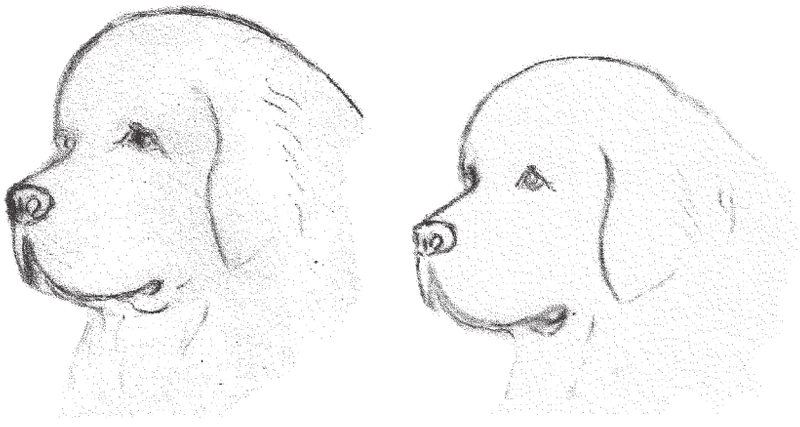
Mordacity: even more than the last trait, this aggressive feature is the antithesis of the breed's sweetness and balance. It is a violent impulse that is often born not from courage, but from fear. Mordacity is always a significant defect in the Newfoundland. It is necessary to draw the attention of the judges and breeders: during the judging process, the dog must be serene, the look in its eyes should be curious and friendly. It must allow one to touch it. If a dog is mordacious, an analysis must be done; if in doubt, then it must be seen again, leaving the judgment suspended. If it reveals an obstinate alteration of character, one must have the courage to disqualify it.
Breeders, on their part, will have to pay the utmost attention and not to breed such subjects, so as not to pass on a similar defect to their offspring.

Vigilance: it is interpreted as the aggressive reaction to a stranger who invades his property. In reality, the Newfoundland does not like to attack humans. If someone rings the doorbell, it will welcome them in a friendly way after having warned them of his presence.
However, if a stranger were to enter without warning, its behavior would be different: it would stay close to them, barking cautiously and preventing them from moving with its large size. However, if necessary, it would be able to intervene to defend the family.

Head

The Standard

"Massive. The head of the bitch follows the same general conformation as the male's, but is less massive."



Since studies about canine typologies began, the head has always held great importance in research. Scientists such as Buffon who considered the position of the ear, Cuvier, Jean Pierre Megnin who formulated his classification (lupoids, braccoids, molossoids, graioids) in 1897, Cornevin, Baron and Dechamber who, in 1921, subdivided the single breeds on the basis of their cranial-facial axis (concave, straight, convex), have always given the most phenotypical importance to the head. This climaxed in the famous quote by Giuseppe Solaro, "The head tells the breed."

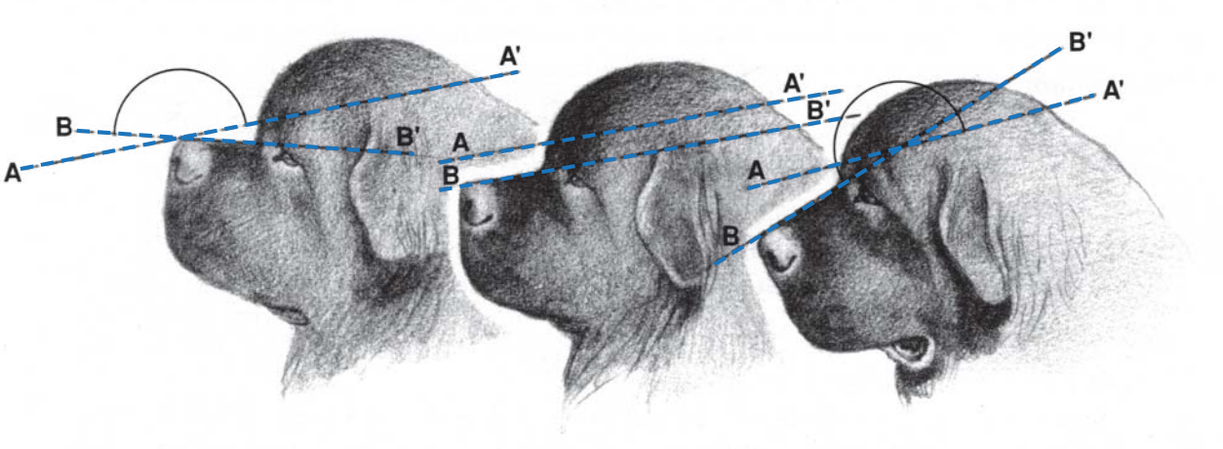
Indeed, no other part of the body is so full of specific traits; the other areas are generally more important for the build. This is especially true for the Newfoundland.
One has only to think of the century-long tradition and the legendary character of this lifesaving breed to understand why it cannot do without a "face". The wide and somewhat rounded cranium, with a wide forehead, framed by the sinuous line of the ears, the squared but cornerless muzzle, the soft and clean mouth that is soft on everything it touches, the serene intensity in its look are a synthesis of proportions that do not allow for defects or excessive unbalance.

As the standard states, the Newfoundland's head must be wide and massive. It must never appear small compared to the body nor appear narrow or elongated. Its length, measured from the occipital apophysis to the superior anterior angle of the nose, is a bit shorter than the ratio of 4/10 of the height to the withers, about 38 to 39 percent. But the most interesting ratio is between the length and the width, taken at the level of the zygomatic arches and expressed by the following formula:

$$\text{Total cephalic index} = \frac{\text{width} \times 100}{\text{length}}$$

This index allows us to divide the breeds into the following categories: dolichocephalic, or having a long and narrow head with a ratio less than 50; mesocephalic, with a ratio equal to 50; brachycephalic, or wide head with a ratio greater than 50. The Newfoundland, a molossus, belongs to the brachycephalic and possesses a cephalic index around 60 to 63.

The head is divided into two fundamental regions: the muzzle and the cranium.
The ratio of these regions determines one of the fundamental aspects of the type and is defined by those ideal profiles that are referenced by the cranial-facial axis.
The superior longitudinal axis of the cranium (A - A1) is that which unites the Inion point (or center of the occipital protrusion) to the Nasion point (or meeting point between the frontal and nasal bones).
The longitudinal superior axis of the muzzle (B – B1) is the line of the nose, traced from the upper anterior corner of the nose to the transversal line that unites the two inside corners of the eyes.
The relationship between the axes can be one of parallelism, convergence or divergence.

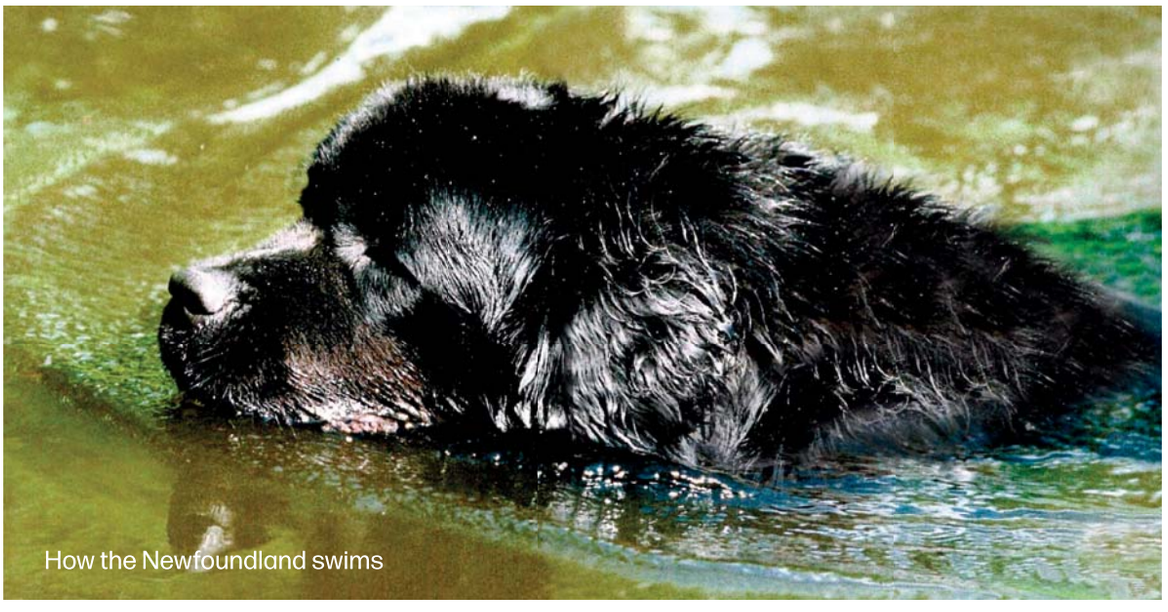


Convergence < 180° Parallel Divergence > 180°

In parallelism these axes never meet, in the convergence they meet forming an obtuse angle smaller than 180 degrees, and in the divergence they form an angle greater than 180 degrees.

It is this interesting piece of information, typical for every breed, that makes it immediately clear how a convergent axis brings the Newfoundland close to the St. Bernard while the divergent one brings it back to the hound or Bloodhound.
These data are thus of the utmost importance in defining the type, and every standard should give an accurate description. However, it is quite difficult to find this piece of information even in texts commenting the standard.
The only reference is found in the book Le Terre Neuwe by Dr. Maurice Luquet, in which he comments on the Dechambre Classification, which puts the Newfoundland among the concave lines. Luquet writes, *"Nowadays, if one referred to the standard and to the dogs examined at shows, we would think of it more as a subconcave linear, halfway between the perfect straight line and the well defined concave."*.

This subject, one that should be discussed further, shows the importance of a well defined parallelism. In no case must one indulge in a divergence that has no meaning either from the historical (prototypes) or from the functional point of view. It is a conformation that does not facilitate breathing while swimming and retrieving. It is enough to observe a Newfoundland while active to notice this.



How the Newfoundland swims

The position is invariably the same: withers and end of back slightly above the water, neck extended forward, head extended on the neck to maintain the nose far from the water. A divergent axis would require a further extension of the head on the neck with consequent diminished breathing capability. **The divergence of the cranio-facial axes therefore appears as a serious defect.**
Another factor of the utmost importance regarding type and function, always tightly intertwined, is given by the ratios of the diameters and by the conformation of the muzzle and cranium.

CRANIAL REGION

The Standard

"Skull broad, with slightly arched crown and strongly developed occipital bone. Stop evident, but never abrupt".

For a better understanding it is useful to review the interesting remarks by Studer regarding the origins of the Mastiff.
"*From ancient times, man tried to obtain breeds which, due both to their strength and jaws, would be able to fight powerful enemies and large animals, participate in hunts, and tame large and restless domesticated animals. To obtain such specimens, large*

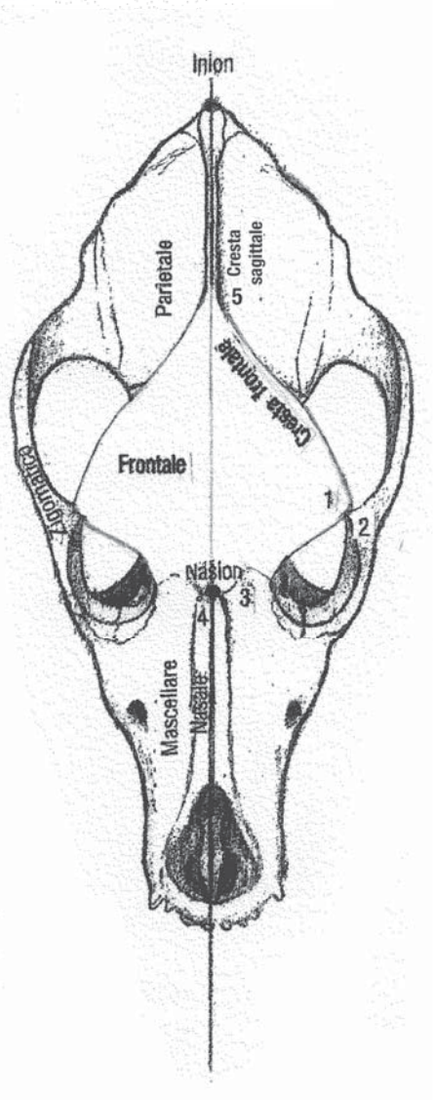
dogs with well developed dentition were bred. These had a maxillary lever quite close to the point of muscle insertion, that is with the shortest possible branch from the epiphysis of the chewing muscles.
Such shortened jaws became heavyset and strong in dogs with well developed teeth. These circumstances required a great development of the jaw muscles, which in turn needed a large epiphyseal area. Consequently the bones of the cranium become accentuated, the sagittal crest is elevated and the sides of the cranium fall in a roof-like fashion toward the zygomatic epiphysis; the cheek bones become abundantly developed and the temporal muscle finds an ample setting in the cranial fossae.
The cheekbones not only extend, but also become powerful and thick, giving a sufficient point of insertion to the masseter muscle. The inferior jaw bone presents indentations for these muscular insertions; it becomes massive and its lower edge -by which movement is limited- is developed externally with a clearly convex shape.
Ordinarily, the point where the parts of the face conform to the parts of the brain is quite ample, and thus the forehead is wide and flat with a slight excavation of the median line.".

Naturally, the Newfoundland is quite distant from certain exaggerated differentiations. It is important, however, to understand that this breed, which in the last century was classified along with the Mastiffs, must not tolerate **dolichocephalic heads, restricted frontal sinuses or receding temples.**

The short, fine fur creates a velvety, light and shade mask

The ample and spacious forehead is a fundamental characteristic of the breed. Thus, while the width of the head is given by the bizygomatic diameter, its aspect rounded or shaped as a dome is due to the expansion of the frontals both transversally and in height.

Cranium of Newfoundland

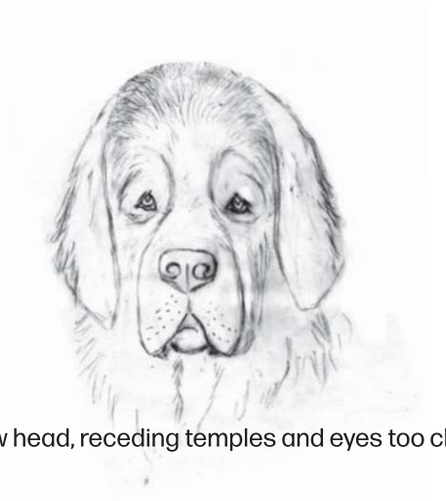


Region of the cranium

1. Zygomatic process of frontal (ectorbital point)
2. Frontal process of zigomatic bone
3. Maxillary apophysis
4. Nasal apophysis
5. Sagittal crest

A just proportion between these two aspects is necessary: if the height were too little, the head would appear flat; on the other hand, if it lacked width it would appear too vertical and narrow.

Flat head



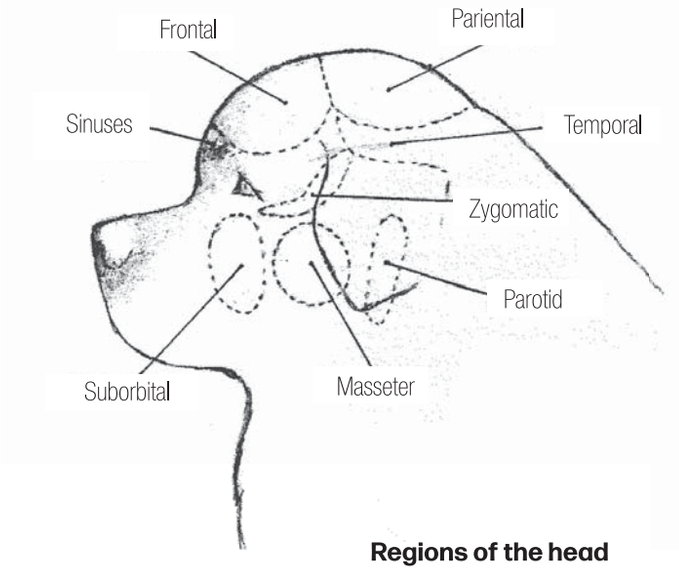
Narrow head, receding temples and eyes too close

The particular conformation of the cranium, with receding development in height as well, allows the temporal muscle to find perfect placement without taking on excessive thickness which, combines with an overly developed masseter, would give the head the imprint of the Rottweiler. A masseter of good proportions will instead be the base of a softly curved cheek.

Temporal and masseter muscles

The frontal sinuses must be wide resulting in a good distance between the eyes.

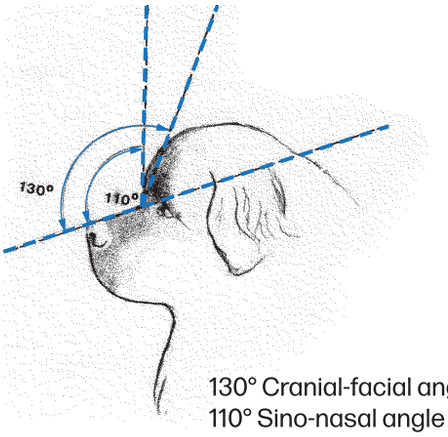
The conformation of the frontal sinuses exists in relation to the qualities of the sense of smell in each breed. Dogs with a well-developed olfactory sense, such as hunting dogs, who sniff the tracks with short and frequent breaths, show frontal sinuses smaller than those of dogs that capture odors at a distance, inhaling large quantities of air. The Newfoundland certainly belongs to the latter category and, in this case, morphology and function come together in perfect harmony.



Regions of the head

The width of the forehead and the distance of the two ectorbital areas (zygomatic processes of the frontal bone), determining the lateral diameters, influence among other things the position of the eyes which, as the Standard specifies, must be set rather wide apart.
A correct development of the brow arch accentuates these traits, which are well seen from the front, with short, fine, shining hair that builds on the underlying bone structure creating a velvet-like mask with a dark-light effect.
The metopic frontal suture, the indentation that goes from the Nasion Point to the meeting point of the frontal crests, must not be overly marked so as not to destroy the softness of appearance.

In lateral perspective, the stop or the frontal-nasal depression is not as deep as that of the St. Bernard or the Great Dane. This is probably what the standard refers to when it says: "The stop must not be too pronounced". It must however rise with a good slope. The point at which the frontals rise from the nasal bones and from the maxillary apophysis of the upper jaws must be well-marked, developing into a gentle curve, rounded and further accentuated by the brow arches. The degree of the stop is determined from the cranial facial angle obtained by applying the side of a protractor along the nose at the frontal-nasal depression on the median line of the head. In the Newfoundland, its value is of approximately 130 degrees. At the level of the frontal sinus (sino nasal angle) it is 110 to 120 degrees.



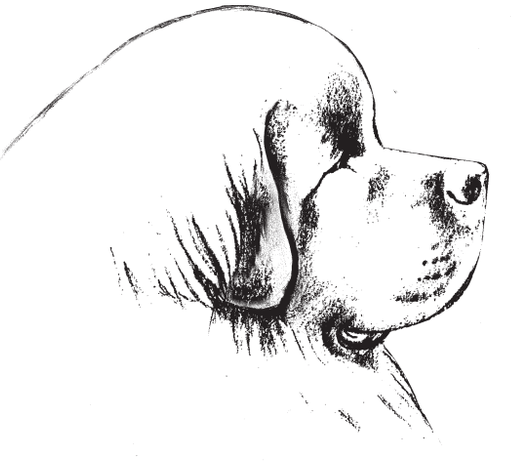
130° Cranial-facial angle
110° Sino-nasal angle

At the top of the cranium, the conjunction of the frontal crests is continued in the sagittal crest (moderately raised) that separates the two parietals and ends on the occipital bone.
Regarding this, the standard states that, "The occipital apophysis must be well developed". This point is evident because it is here that the ends of large neck ligaments and muscles insert; these components are important for pulling and carrying weight. It is important to note, however, that because of this, it must not appear as an excessive bony protuberance, which would indicate weak muscle development.

FACIAL REGION

The Standard

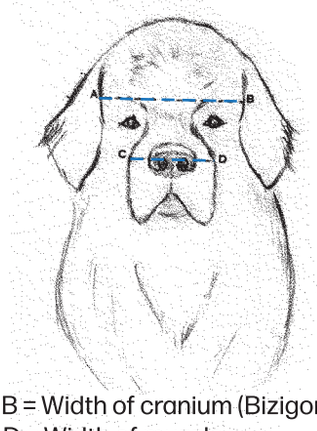
"Nose: large, well pigmented, nostrils well developed. Colour: black on black and white and black dogs, brown on brown dogs.
Muzzle: definitely square, deep and moderately short, covered with short, fine hair and free from wrinkles. The corners of the mouth are evident, but not excessively pronounced.
Flews: soft.
Jaws/Teeth: scissors or level bite.
Eyes: relatively small, moderately deep set: they are wide apart and show no haw. Colour: dark brown in black and white and black dogs, lighter shades allowed in brown dogs.
Ears: relatively small, triangular with rounded tips, well set back on the side of the head and close lying. When the ear of the adult dog is brought forward, it reaches to the inner corner of the eye on the same side".



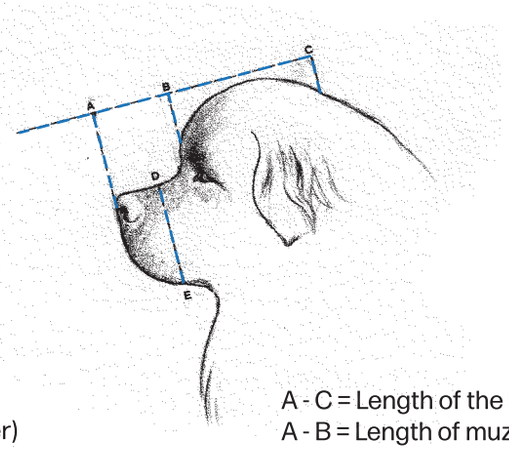
In contrast to the rounded lines of the head, the muzzle has an almost cuboid appearance, however with beveled edges that soften the profiles. It must be in right proportion with the skull.

This is a very important concept: in a heavy retriever dog, a solid and capable muzzle must correspond to a broad and massive skull with well-developed zygomatic arches. In fact, if the jaws are the lever arms on which resistance and power meet, the muscles represent the motor and must have good development and large, solid insertion points.
Solaro says: "*The jaw is powerful only when the temporalis and masseter muscles are powerful.*"
The shape and size of the skull therefore become fundamental factors, consequently **small skulls and narrow heads constitute a serious defect.**

Seen from the front, the proportion between the width of the muzzle and the width of the head is approximately 54%.
Heads with receding temples, with skulls smaller than the muzzle do not satisfy functional mechanics.



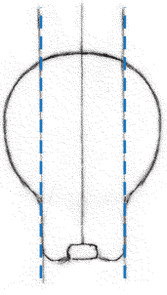
A - B = Width of cranium (Bizigomatic diameter)
C - D = Width of muzzle



A - C = Length of the head
A - B = Length of muzzle
D - E = Height of muzzle

The length of the muzzle, from the edge of the nose to the Nasion point, is approximately 36-38% of the total length of the head. Its height or depth is roughly equivalent. It is given by the jaw, the development of the upper jaw and the nasal bones from which wide airways and notable respiratory capacities derive, fundamental in the retriever dog where ventilation under stress occurs with a closed mouth.
Long or pointed muzzles constitute a defect in type.

The parallelism of the two lateral faces of the muzzle, which begins at the height of the 3rd premolar, is an important type character and determines the squareness and width of the anterior platform. Seen from the front it will appear wide but with edges softened by the slightly curved set of the incisors.



3rd Premolar

The superior nasal and superior maxillary bones must fuse harmoniously at the forehead and orbit. Prominent nasal bones damage this appearance and are to be penalized. The superior nasal and superior maxillary bones must fuse harmoniously at the forehead and orbit. Prominent nasal bones damage this appearance and are to be penalized. The bridge of the nose, which is formed by the nasal, maxillary and incisive bones, is ample and the nose in profile must appear straight. A curved nasal profile, typical of those breeds adding a divergent cranial facial axis, constitutes a serious defect and is in contrast with the functional anatomy.
As previously stated, the volume of inhaled air is very important for the Newfoundland; an ample ad perfectly straight nasal cavity perfectly meets such needs.

Prominent nasal bones

Curved nasal profile

Naturally, this would not be possible without an adequate shape of the nose that represents the terminal part of this organ.
The nose must be quite wide, well opened, neatly delineated, with lateral processes of the nostrils that are in line with the nasal plane. This is found on the same vertical plane as the anterior face of the lip plane and meets the longitudinal axis of the muzzle in a right angle.
The nostrils are ample, mobile and of moderate thickness in order to allow for good dilation when larger quantities of air are needed and as breathing accelerates.

Dilation of the nostrils in closed mouth breathing

Sometimes one encounters protruding noses with an acute angle seen from the profile such as that of a hound, lower with reference to the nasal cavity, and others, on the contrary, with a set-back nose with a protruding nasal septum and thick wings; both are quite defective. The same can be said of those noses that, even having a correct profile, are small in proportion to the width of the face.

Nose that protrudes above the lip level

Nose receding into the lip plane

Nose small, rigid, with narrow nostrils

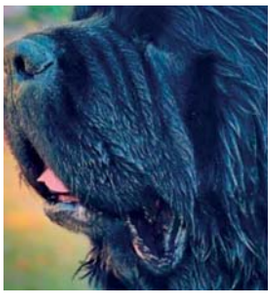
While the lower portion of the face is constituted by the mandible, strong and moderately curved with an ample intermaxillary canal, its profile is designed by the lips. In the lateral perspective, the upper lip is softly curved, rounded and full in the front, covering what is beneath it, but it must not appear square or go lower than the labial commissure, indicating a "*soft, drooping and flaccid lip*" as in other molossoids in which the lip gives the clear sensation of being heavy.
On the other hand it must not appear tense or thin, as is seen in cone shaped or pointed faces.


Correct lip

The bottom lip must not fall; it must be adherent to the jaw and not turn outward. The outline of the mouth is soft, but must not form an evident commissure or form hanging pockets.


Square lip


Tense lip

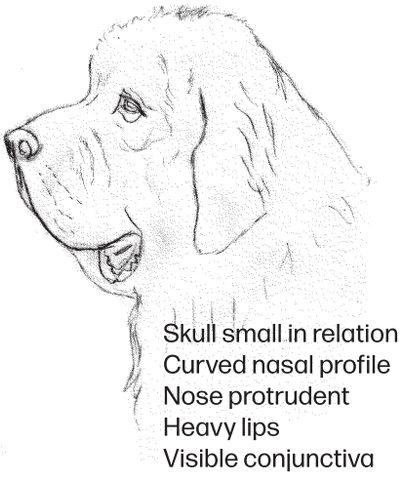

Hanging lip pockets

On the anterior plane, the lips are separated by the median sulcus and are recognizable from a distance by the triangular space in the form of an inverted V that is well opened. Heavy lips are recognizable by a very narrow inverted V.


Wide V disjunction
(Correct)


Narrow V disjunction
(Heavy lips)

Unfortunately, large lip development is confused at times with width and depth, which should be derived from the underlying bone structure as opposed to an overabundance of skin. At first glance, a face of this kind may appear strong from a side view but, once seen from the front, it immediately reveals its true nature: a nasal cavity disproportionate in width to depth and narrow labial disjunction. Furthermore, since a set of genetic traits are often linked, one could associate insufficient cranial diameters, low and heavy ears and open eyes with visible conjunctive, excessive skin and so forth.
An overabundant lip accompanied by lower lip pockets has no functional meaning except for flooding everything with saliva every time the dog shakes its head. It must be remembered that the Newfoundland is not a dog that drools if the lips are correct.



Skull small in relation to muzzle
Curved nasal profile
Nose protrudent
Heavy lips
Visible conjunctiva
Long hear

As color goes, the outline of the lip is preferably pigmented in the black and white and black with lighter pigmentation in the browns. Partial depigmentation occurs with aging but may also be found in younger subjects. The tongue may also be partially pigmented.

The Ear

The examination of the exterior profiles of the head cannot be complete without an accurate de- scription of the ear. In the Newfoundland the ear can be justly considered the frame of a beautiful picture.

The ear is inserted with a large oblique base in the middle of the cranium either at the level of or slightly above the brow (supercillary arch). The ear follows the outline of the head accentuating, from the front view, the typical earmuff conformation.

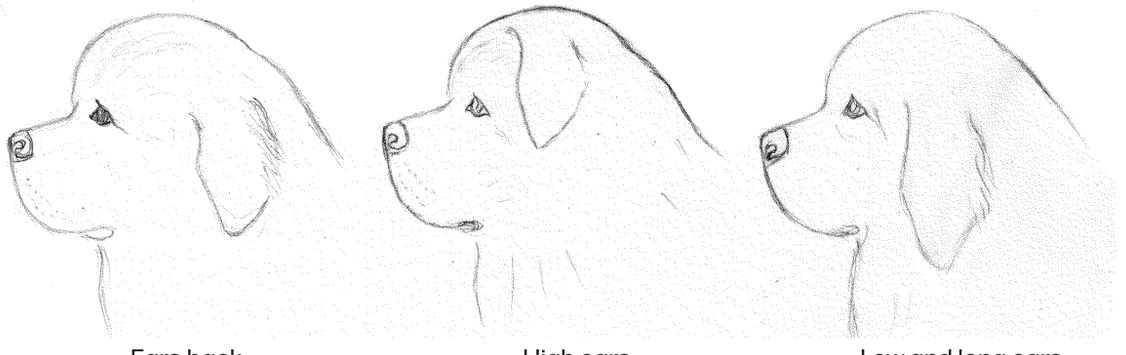
Because the dog indicates his mood by the way the ears are carried, placement varies with different facial expressions. In an alert animal, the ears are carried higher and forward, making the expression of the brow and the volume of the head more powerful. When the dog is relaxed, they are held lower and further back.

The ear is of triangular shape and has a rounded tip; the thickness is moderate, neither excessively thin nor heavy. When the insertion and the lengths are correct, it reaches the internal angle of the eye when pulled forward and lengthwise and does not go beyond the throat. Sliding along the head, the ear begins ta the anterior insertion with a slight curve that follows the roundness of the temples; it accentuates on the zygomatic arch and then comes close to the masseter, which it delicately touches.

This line is evident by the short and fine hair that covers the front half and the tip of the ear. It is certainly to this line that the standard refers to when it states, "short hairs without fringes." On the other hand, the back part of the ear always presents fringes that must be trimmed when too long; however, they must not be completely removed because then the Newfoundland's ear would be similar to that of all other breeds, making the profile of the head and the insertion of the neck hard and sculptured.

The defects regarding the ear are mainly concerning insertion and dimension. An ear that is inserted too far down or too far back is similar to that of a cocker or hound and damages the appearance of the head.

Ears that are too small, inserted too high and too far forward devastate the fluidity of the lines and, in the presence of thick temporals, give the impression of a flat cranium (Rottweiler).



Ears back High ears Low and long ears

The Eye

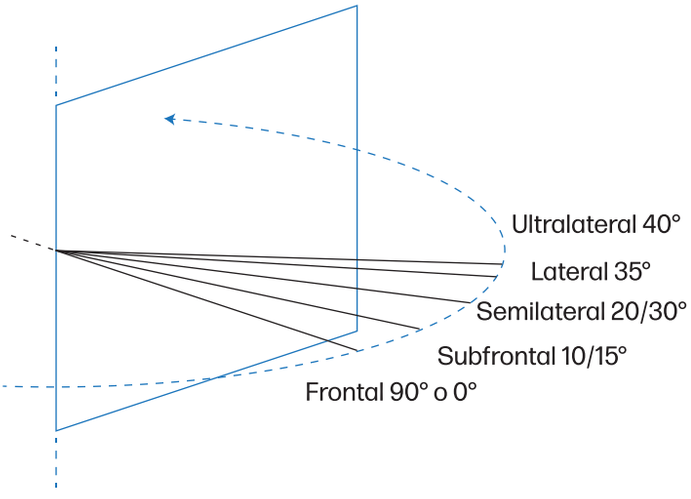
If the ear is the frame of the head, then the eye is the focal point that draws one's attention and gives full value to the contents.
The expression would be worthy of thousands of attributes: noble, sweet, intelligent, patient, attentive, joyous, reflective, sincere, and these would not be sufficient to describe as much as one would like.

Apart from deeper meanings, one must individualize morphological aspects that make such an expression concrete. The eyes in the Newfoundland must be "small, dark brown, deep set, without visible conjunctive, and well spaced." It is from these indispensable characteristics that the much appreciated expression so typical of this breed is derived. This would not be possible without an adequate development of the underlying bone structure.

Intelligent, meditative and joyous Newfoundland expression

First of all **the distance of the eyes is determined by the ampleness of the forehead and nasal bridge.** Narrow frontal sinuses would bring the eyes close together and change the expression enormously, making it appear wolflike.

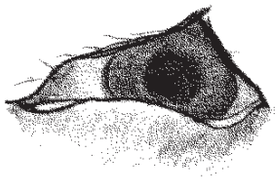
Equally important is the orbital conformation. It is composed laterally by the zygomatic arches with its frontal process, above and medially by the frontal bone and below by the lacrimal bone that lies above the supermaxillary bone. This is where the eye is set, and this determines its position and depth. These bones are also determined through the structures connected to it, such as the orbicular muscle, the retractors of the lateral corner and the eyelid ligaments.
A wide and massive head allows for the orbit to find the correct diameters and gives the eye correct position.



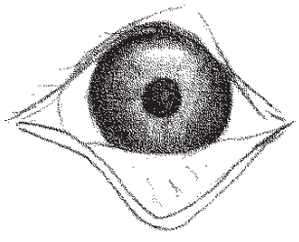
In relation to the median axis of the head, the eyes are situated in a subfrontal position, this meaning that the axis of the eyelid forms an angle of 10 to 15 degrees with the head. If the inclination were superior (lateral and ultralateral position), the expression would be similar to that of Nordic dogs; on the other hand, if it totally lacked angulation, the eyes would assume a markedly round shape.

In relation to the nasal bridge, they are on the same plane: this gives them a sweet and serene expression that would be lost if they were up too far.

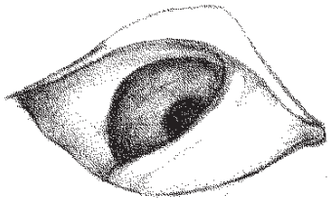
Another factor typical of the breed are the eyelids. As seen above, the eye is small and deep set, an impression that is accentuated by the development of the supracillary (brow) arch. The eyelids must delicately follow the contour of the eye in order to protect it from air, water and foreign objects. Their shape is typical: the upper eyelid is arched upward, assuming in the attentive dog an almost triangular shape, still adhering perfectly to the eye. The lower lid is oval and follows the orbit without showing the conjunctive.
It is the outline of the eyelid, adherent to the eye, that gives the dog its intelligent, thoughtful and joyous look.
When the skin is too relaxed and the bone, ligament and connective structures are lacking, the eyelids no longer adhere to the eyes and they may turn inward open outward with a skin fold that shows the ocular-conjunctival mucosa (haw).



Entropion



Ectropion



Third eyelid

This can be situated at the temporal corner of the eye or at the central one, assign the lozenge shape, typical of the St. Bernard.

In more accentuated cases, there can be cutaneous skin folds that extend to the forehead and the cheek and to the eyelid ptosis of the superior palpebra (upper lid). All of these defects give the dog a melancholy or sleepy expression, non typical in the Newfoundland. Also not typical are the expressions created by large, round, set forward or bovine eyes.

Round eyes

The edge of the eyelid must be completely pigmented along with the third eyelid or nictitating membrane; an even partial depigmentation damages the expression quite a bit. It must also be said that the third eyelid must never be so developed as to hide the eye.

Once shape and position have been considered, no eye is ever correct without the right color of the iris. In the Newfoundland, the ideal color is dark brown, warm and deep antique wood color; such an eye in itself gives security and is almost always accompanied by a sweet and balanced personality. Naturally all of the tones of brown, even if less intense, are acceptable. This is not true for yellow or light yellow eyes which are objectionable. These colors are quite common in the browns and grays where they sometimes go unnoticed; however, they are immediately noticed on the blacks. From this comes the opportunity for a careful evaluation of crosses between the two colors in order to avoid black subjects with light eyes.

Yellow eyes

The Teeth

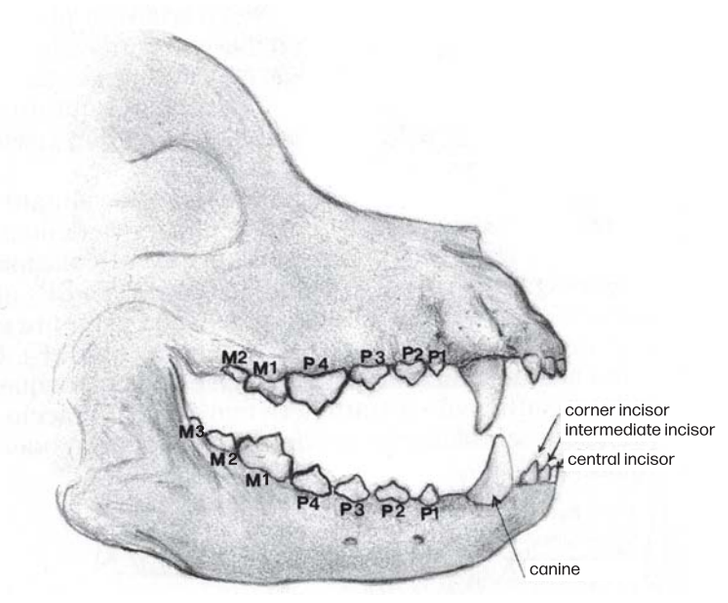
There are 42 teeth in the adult dog, divided in the following manner:

$$\text{Incisors: } \frac{\text{upper } 3\ 3}{\text{lower } 3\ 3} = 12$$

$$\text{Canines: } \frac{\text{upper } 1\ 1}{\text{lower } 1\ 1} = 4$$

$$\text{Premolars: } \frac{\text{upper } 4\ 4}{\text{lower } 4\ 4} = 16$$

$$\text{Molars: } \frac{\text{upper } 2\ 2}{\text{lower } 3\ 3} = 10$$



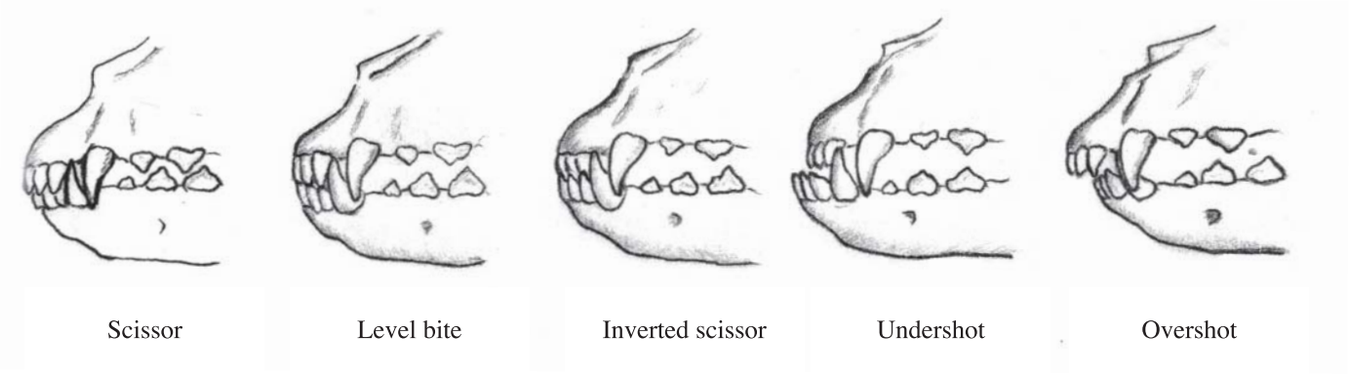
The upper jaw, starting from the center, has on each side: three incisors: incisor I or central incisor, incisor II or intermediate incisor, incisor III or corner incisor; one canine; four premolars P1, P2, P3, and P4, which is the larger upper tooth; and two molars M1 and M2. In the upper jaw between the corner incisors and the canine, there is a space called the interdental space, or diastema, where the corresponding inferior canine is inserted when the mouth is closed.

The same formula is true of the lower jaw, in which the largest tooth, however, is Ml or the first real molar. It also has one molar more per side. The upper P4 and the lower M1 are called carnivorous or lacerating teeth.

What is interesting about the teeth though is the closure, the insertion, the number and the size, a factor which cannot be ignored in a heavy retrieving breed such as the Newfoundland.

As far as the closure of the mouth goes, the standard says that it may be a "*scissor or level bite.*" In an orthognathous breed (one having a straight jaw without the lower jaw projecting), the upper jaw length is superior or equal to that of the lower jaw.

The scissors closure, which is the most regular, calls for a disposition of the superior arcade incisors, which are further forward than the inferior ones, so that the lingual face of the first slides above the vestibular face of the second.
The level or even bite occurs when the insertion of the teeth is such that they are superimposed one on the other; in this case their margins touch and are worn down more rapidly than with a scissors bite.



It may also occur that in jaws of equal length, the vestibular-lingual relationship is totally inverted. The bottom incisors are then further forward than the top ones, this being called the antiverted or inverted scissors bite, which is still tolerated in breeds with short and squared faces.

When the jaws are not of equal lengths, the advancement of the longer one causes a loss of contact between the dental arches. This is called enognathism (upper prognathism or overshot) when the lengthening referred to is of the upper jaw; it is called prognathism (undershot) when it regards the lower jaw. Although prognathism is considered a typical trait in some breeds such as the boxer and does not cause mastication problems, enognathism, if accentuated to the point of brachygnathia (or parrot bite), can be a problem both in grasping and in chewing food.
Enognathism and prognathism are reason for disqualification in shows.

The number of teeth may vary in either direction; these anomalies frequently involve the lack of premolars and are to be evaluated while bearing in mind the importance of the teeth in question. Consequently, even if the absence of a P1 is acceptable, the absence of more important premolars or of molars is of greater importance. The dental examination must be done in depth so as not to overlook important teeth.

An aspect that should be carefully evaluated is the size of the teeth, which sometimes appear too small (rice grain-sized). The jaws of the Newfoundland must be strong and robust and the teeth adequate.

The jaws behave as levers whose fulcrum consists of temporo-mandibular articulation.
At the molar level, these joints behave as second degree levers (PF > PR); therefore, with this exceptional strength they are capable of breaking bones and other hard objects. At the level of the first premolars where the retrieving action occurs, these become third degree levers (PF < R1F). This involves a minor force that is proportionate to the length of the RF arm, and that which the Newfoundland, a short and powerfully faced dog, needs in order to grip the arm of a person without hurting it. This action also involves the canines that prevent the body from slipping away with the mouth semi-closed.

Actions of the Jaw:
- mastication (PF>RF) second degree lever
- grasping (PF<R1F) third degree lever

SUMMARY

Fundamental positive traits:

- *Wide and massive head with a cap-shaped skull*
- *Correct skull-muzzle size ratio*
- *Cranial-facial axis parallel*
- *Correct muscular and skeletal development*
- *Wide forehead with good development of the superciliary arches*
- *Small, brown and well-separated eyes*
- *Eyelids that are closely fitted to the eye*
- *Squared face*
- *Wide nose, at a right angle to the anterior plane of the lips*
- *Soft but not sagging lips*
- *Absence of wrinkles or folds of the skin*

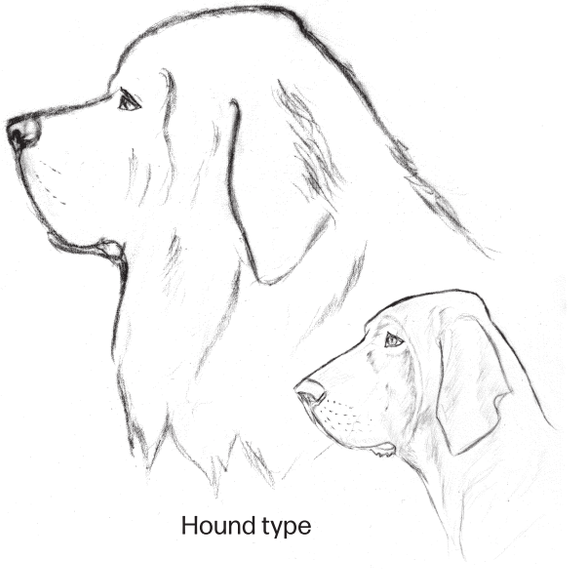
Fundamental defective traits:

- *Small head in relation to the body*
- *Narrow head*
- *Poorly defined stop*
- *Divergent cranial-facial axis*
- *Small skull in relation to the muzzle*
- *Long or pointed face*
- *Relaxed lips; pronounced lower lips; excessive flews*
- *Small nose, meaty or protrudent on the labial plane*
- *Eyes that are too close, light, round, protruding or with visible conjuctive*
- *Wrinkles or folds of the skin*
- *Enognathism or prognathism*

TYPOLOGICAL VARIATIONS

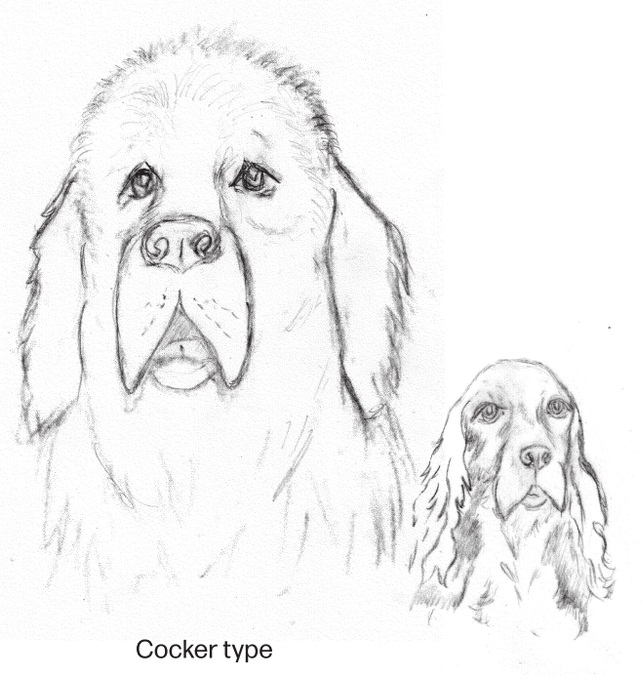
Whenever a character crosses over into the specific variant of another race, the concept of the tipe is violated.

St. Bernard type



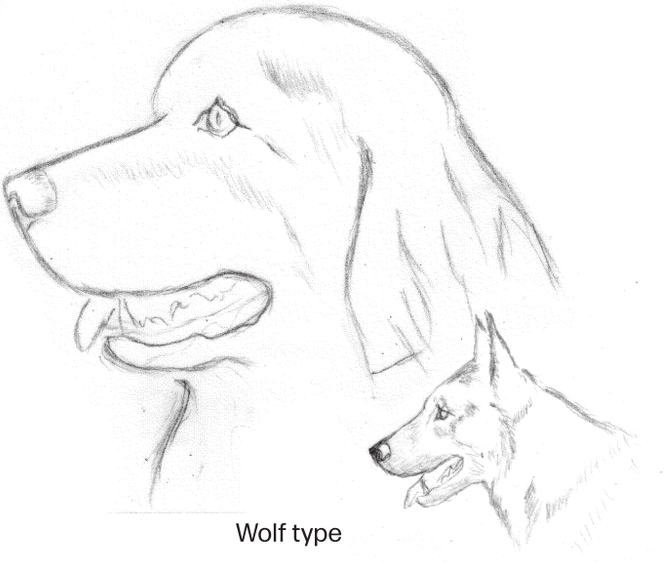
Hound type

Mastiff type

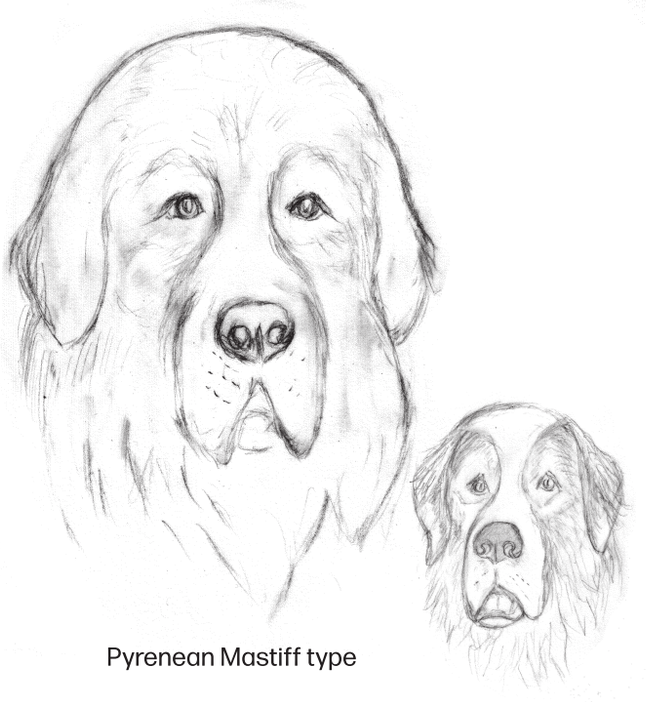


Cocker type

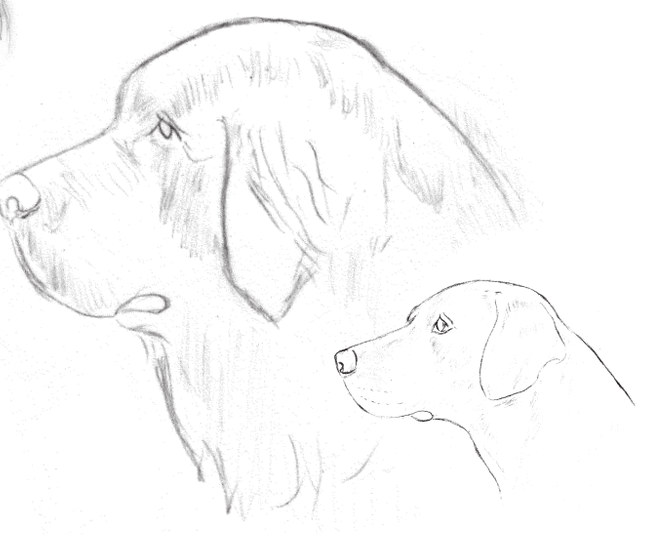
Rottweiler type



Wolf type



Pyrenean Mastiff type



Labrador type

Neck

The Standard

"Strong, muscular, well set in the shoulders, long enough to permit dignified head carriage. The neck should not show excessive dewlap."

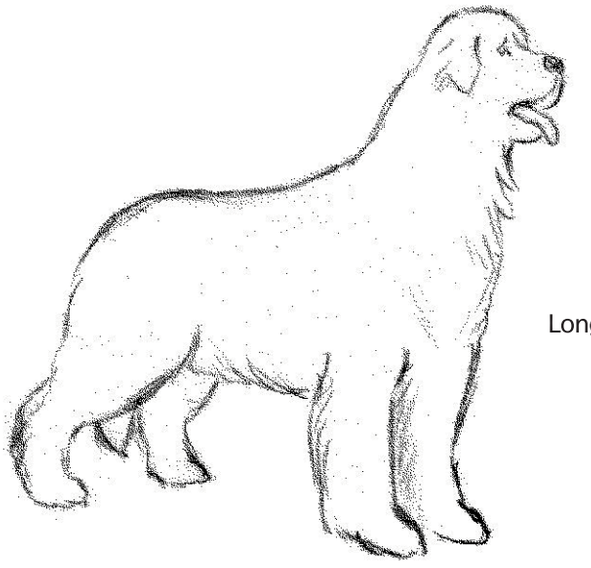
The neck is of the utmost importance in the mechanics of motion of the dog because with its movements it acts on the center of gravity. It has as its base the seven cervical vertebrae and the very important muscles and ligaments that, going from the head to the back, to the shoulder, to the sternum, to the arm, act as motors of the cephalo-cervical balance.
In fact, it connects to the head with the cervical ligament which runs to the first dorsal vertebra (continuing as the supraspinatus up to the last lumbar vertebra) and with the brachycephalic muscle which runs to the deltoid tuberosity of the humerus.
From the cervical ligament and the skull a whole series of muscles start out that go to the scapula and the sternum and contribute to giving solidity to the shoulder girdle. From this we understand how important it is for a working dog that the neck is proportionate and of the right length without excesses. This, measured from the cervical to the first dorsal vertebrae, extended and in a horizontal position, is about 37-38 percent of the height at the withers, approximately the length of the head. It is therefore relatively long but not so much as to lose solidity and muscular strength.

When the dog is retrieving or pulling, both in the water and on land, it is very important for the neck to have robust muscular mass with strong insertions and a notable capacity for resistance. These are traits that cannot be found in a neck that is too long, which would be useful instead for dogs who need speed as a long neck acts as a facilitator for the sprint impulse. If the neck were too short, it would be less mobile and it would not be so helpful in the leaping motion of diving.

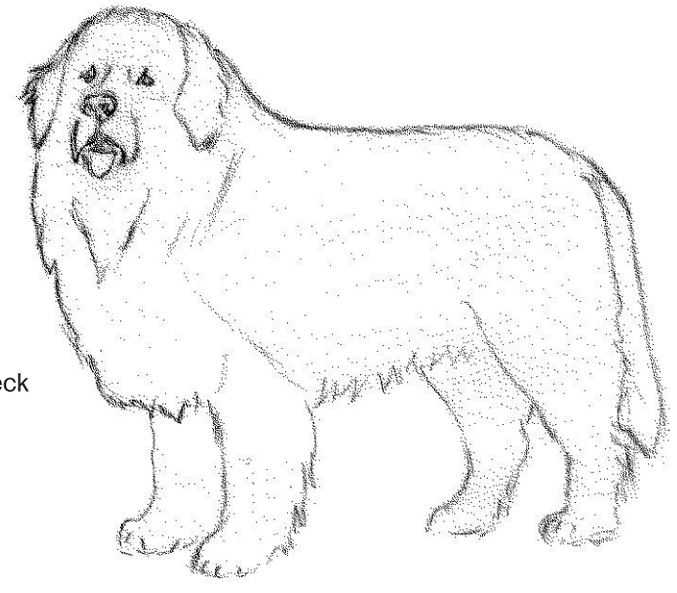
The neck should always be powerful with a circumference, measured midway between the nape of the neck and the withers, of about 83-84 percent of the height at the withers. The separation of the nape of the neck must be well marked and the upper profile must be convex because of the heavy muscle development. The neck is inserted into the shoulders with an ample base. Its axis should form, with the acromial process of the shoulder blade (or scapula), a 90° angle. This seems to be the best balance to help with movements upward and downward and changes of the center of gravity during activities.

The relationship between the neck and the scapula appears to be fundamental both from a morphological and functional point of view: a scapula that is too straight will make the neck appear shorter and the back longer, on the other hand, if the scapula is too inclined, the neck will tend to appear vertical.

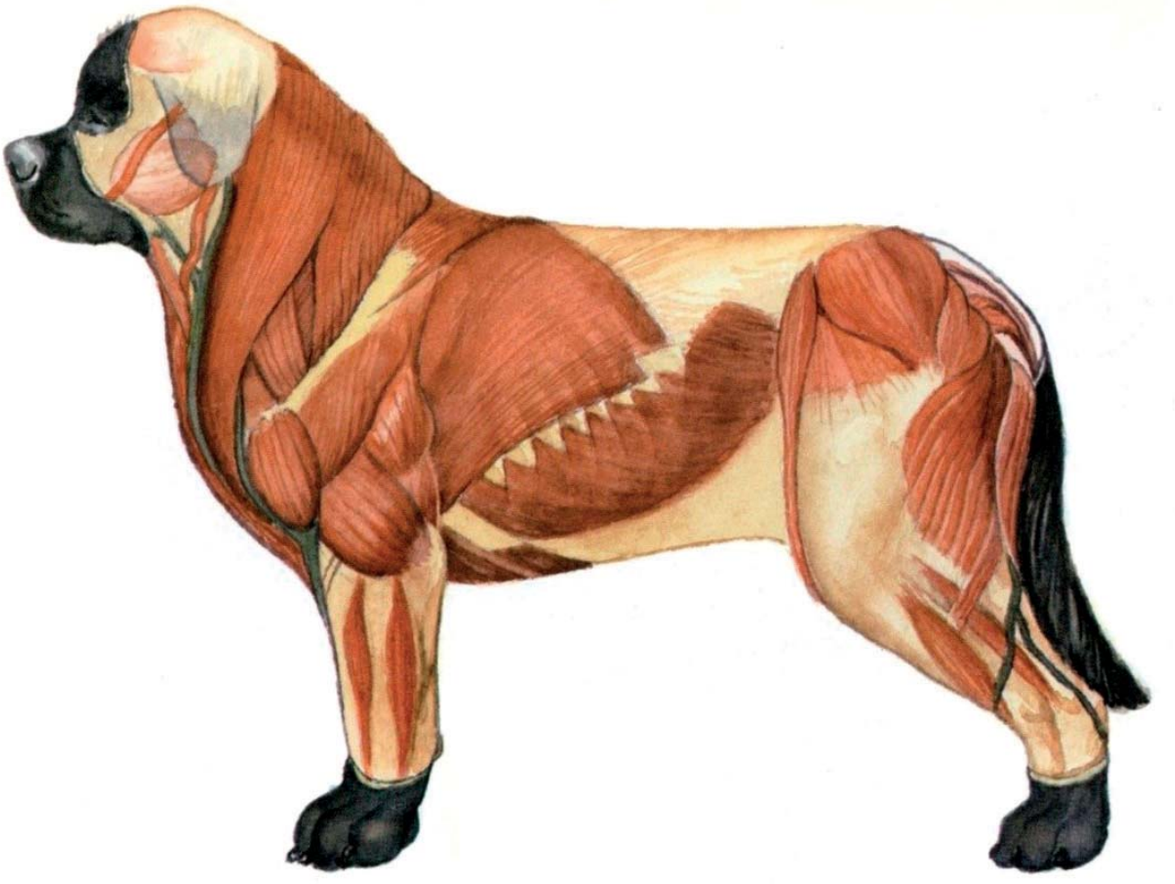
The wording in the standard "*long enough to permit dignified head carriage*" sometimes gives rise to an exasperated search for an ever longer neck. Although this may seem elegant to some, it turns out to be detrimental for function: in order to balance this heavy lever arm, the dog must hold its neck very straight, thus stiffening the spine and putting weight on the hind legs, a situation which can also lead to gait defects and sagging of the topline.
Many, to make their neck appear longer, go as far as thinning out all the hair, including the fringes that go from the throat to the chest and which are characteristic of the breed.
Furthermore, this region must not present dewlap which is often accompanied by a state of relaxation of the connective tissue in other regions as well.

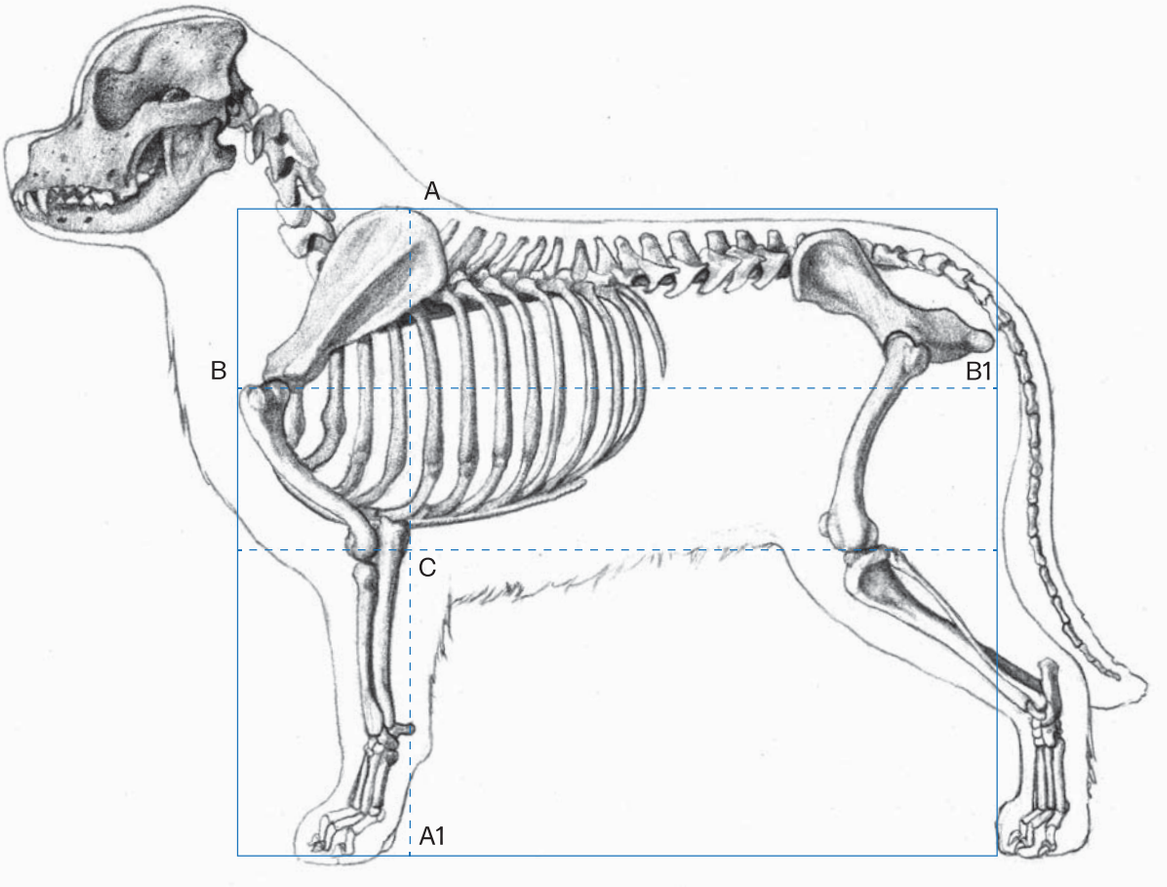


Long neck



Short neck





Height: A - A1
Length: B - B1
Thorax height: A - C > C A1

Body

The Standard

"Bone structure is massive throughout. Viewed from the side, the body is deep and vigorous.
Top line: Level and firm from the withers to the croup.
Back: Broad.
Loin: Strong and well-muscled.
Croup: Broad, sloping at an angle of about 30°.
Chest: Broad, full and deep, with good spread of ribs.
Abdomen and underline: Almost level and never tucked up".

If, as previously noted, function must always be the guide and the meter to evaluate a working dog, this is even more true when dealing with structures deeply involved in the mechanics of standing and movement.
The body has a double significance: while the thoracic portion holds the pulmonary and cardiovascular system, the withers, back, flank and hindquarters constitute the organs of transmission of the machine that is the body in movement, where head and neck function as the balance beam and the legs alternate in the functions of propulsion and shock absorption.

In the Newfoundland, the length of the body, measured from the tip of the shoulder (scapula-humeral angle) to the tip of the buttocks (ischiatic protuberance) is a bit more than 110% of the height measured to the withers. This means that its body may fit within a rectangle.
This relation in lengths derives both from the backward curve of the ribs and from the proportion of the loins, which must be flexible. The measure of the intensity of the mass in relation to the length of the body is expressed by the following formula:

$$\text{body index} = \frac{\text{length of the body} \times 100}{\text{thoracic circumference}}$$

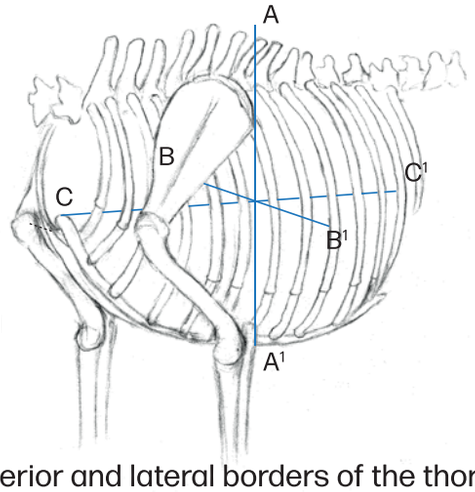
The Newfoundland presents values of about 78. Thus, we are dealing with a mesomorph that we prefer not to classify as a trotter or as a galloper, but as a swimmer. It seems, in fact, built specifically for this purpose.

The Thorax

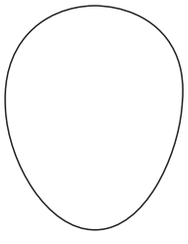
The important attributes needed in such an athletic animal are above all endurance and great cardiac and respiratory capacity. The chest must be well developed in al three dimensions: height (from the back to the sternum), width (at the level of the greatest dorsal diameter) and depth. The depth, measured from the manubrium of the sternum to the ninth fake rib, appears to be a very important measurement. It results from the distance between and the oblique alignment of the ribs. The width of the intercostal spaces and the backward curving of the ribs allow for a major expansion of the thorax during the act of breathing, under the action of the small and large dentate, serratus and the scalenus muscles.
An ample, well-curved, and deep thorax will therefore be an asset.

$$\text{Thoracic index} = \frac{\text{Width of thorax} \times 100}{\text{height of thorax}} = 75 \text{ ca.}$$

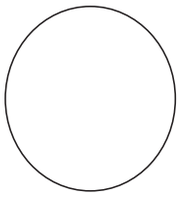
Its height should be greater than that of the elbow, but it should have such a conformation so as not to interfere with the movement of the limbs: wide and rounded above, it narrows in the inferior portion, staying clear of the elbows. Barrel thoraxes or narrow keel thoraxes, short or shallow are quite unacceptable.



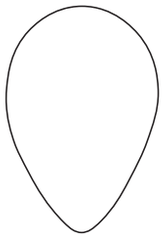
Height: A - A1
Width: B - B1
Depth: C - C1



Correct thorax
high, broad, deep



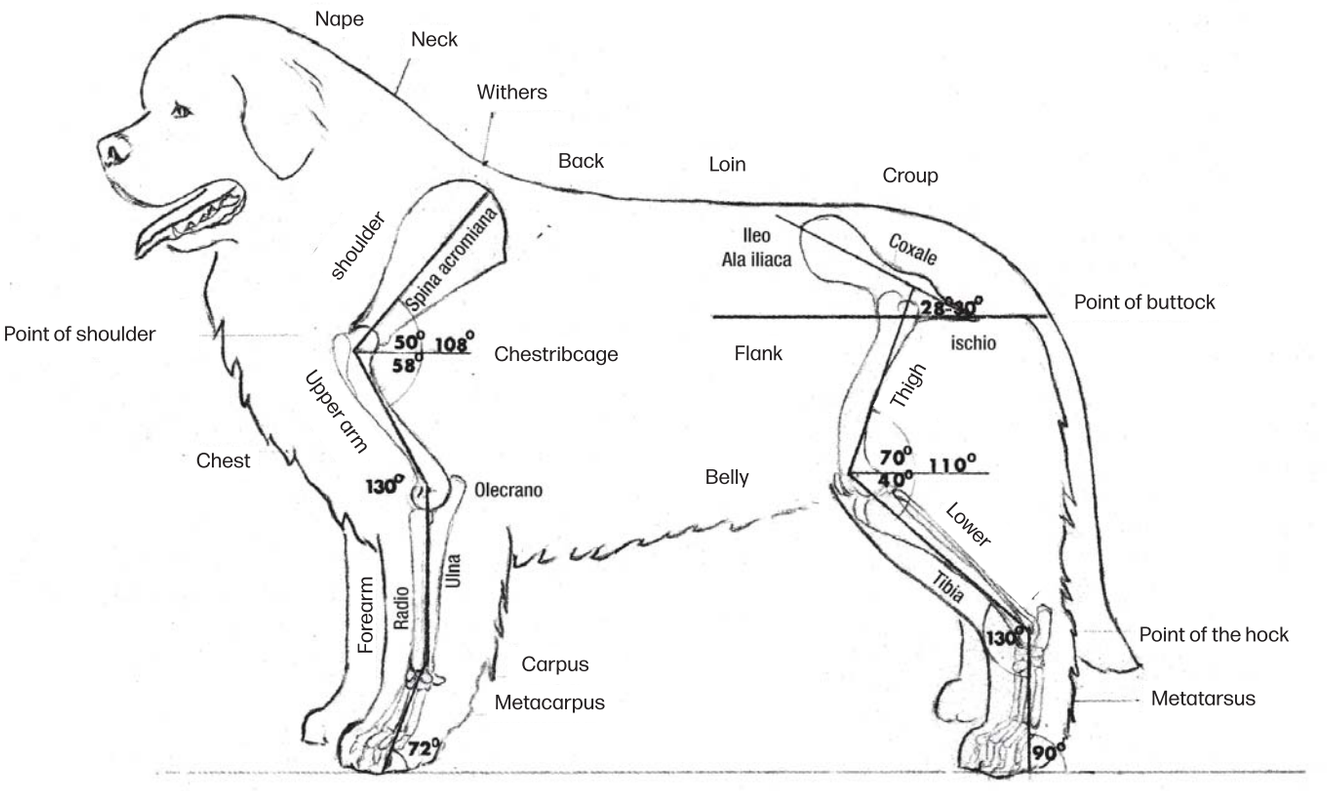
Barrel thorax
ringed but not
deep ribs



Pidgeon thorax narrow
and reduced at the bottom

The anterior and lateral borders of the thorax are determined by the superior margins of the limbs: the shoulder blade and the humerus. These outline the chest which is wide, muscled, and measures, from one tip of the shoulder to the other, about 35% of the height at the withers. The angle of the scapula and humerus also determines the lateral profile of the chest. When these are straight with a wide scapula-humeral angle, it appears flat; on the other hand, when they are overly inclined, the lateral profile of the chest appears to protrude excessively.

The floor or inferior line of the thorax takes its form from the sternum, which continues through its xiphoid process to the abdomen, maintaining an almost horizontal line.
A retracted, tucked-up stomach such as that of the Greyhound is a typical defect.
Further up and back, the thorax continues with the flanks, which must not be concave, but moderately rounded and short. This indicates a corresponding development of the thorax in an antero-posterior direction.



Long and low on the limbs

Short and high on the limbs

Narrow chest, light bone structure (hypotype)

Rampant profile

The withers

The region of the withers is situated between the base of the neck and the back. This region includes the first five thoracic vertebrae.
These have a spineous apophysis (or projection) in their upper portion that acts as a tension lever and that must, therefore, be tall and perfectly inclined.
On these there is a meeting of the following: on one side the cervical ligament that begins at the head and is connected to the dorsal and lumbar vertebrae and the splenius and rhomboideus muscles that sustain the head and neck; on the other side the ileo-spinal muscle that from the iliac wing goes to the withers, neck and dorsalis maximus muscles.
A correct tension of the spine derives from the balance of these forces and consequently a good transmission of the impulses that originate in the hind region. The rhomboid and trapezius muscles connect the withers to the shoulder blade giving correct mobility. The withers must thus have a correct height and length, elevating harmoniously on the line of the back, which must be on the same level as the hind.

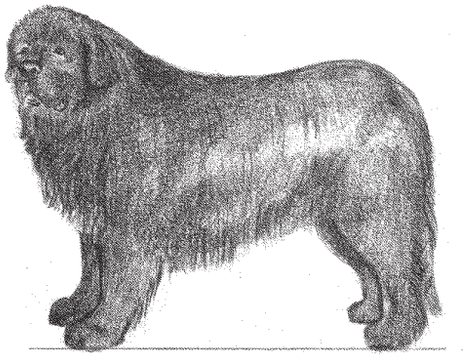
A dog with a lowered withers usually presents a narrow scapular-humeral angle, and appears thrust forward. One must be careful not to consider a withers tall just because of the rampant conformation of those dogs that present too wide an angle with straight shoulder blades and humerus, and which are taller in the front than in the back.

The withers is the reference point for measuring the height of the dog; the height is evaluated at the level of the fifth thoracic vertebrae, which is the tallest.
In the Newfoundland, because of the position of the shoulder blades, it is not easily palpable; thus, one considers the most elevated margin of this process as an index.
One must remember though, that even if the growth process ends at about one year of age, the structure of the withers is not complete until around 18 to 20 months when the ligaments and muscles are toned.

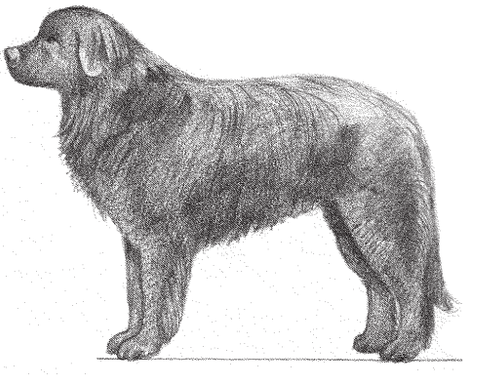
The back

The back is made up of the last eight dorsal vertebrae, on which the remaining ribs and the four false ribs articulate. The superior spinal apophysis maintain their backward inclination up to the tenth vertebrae and then take the opposite forward inclination that is also found in the lumbar vertebrae.
We are dealing with a structure that is particularly adapted to the function of transmission and support for which it was made and that finds its maximum efficiency in a straight topline profile.
This is maintained such by the muscles and ligaments that balance the tension.
When this balance is lacking, the back can be overpowered by the weight of the body, thus assuming a concave (slack) aspect that is called lordosis, or it can curve in the other direction, upward, taking on a convex shape called kyphosis (roached).

While the lordosis is caused by a general looseness of the ligaments, at times sometimes from a too inclined scapula with a straight neck that reduces the action of the cervical ligament or from a high croup, the kyphosis is caused, according to some, by a rickett-like condition with ossification of the intervertebral fibro-cartilaginous discs. According to others, it is caused instead by a disproportion between the anterior and posterior push.
Both, however, reduce the impulse and are in contrast with the functionality of the subject.



Overweight dog with lordosis,
down in pasterns and poor angulation.



Long-coupled dog, light boned,
tucked-up abdomen with kyphosis

Loin and flanks

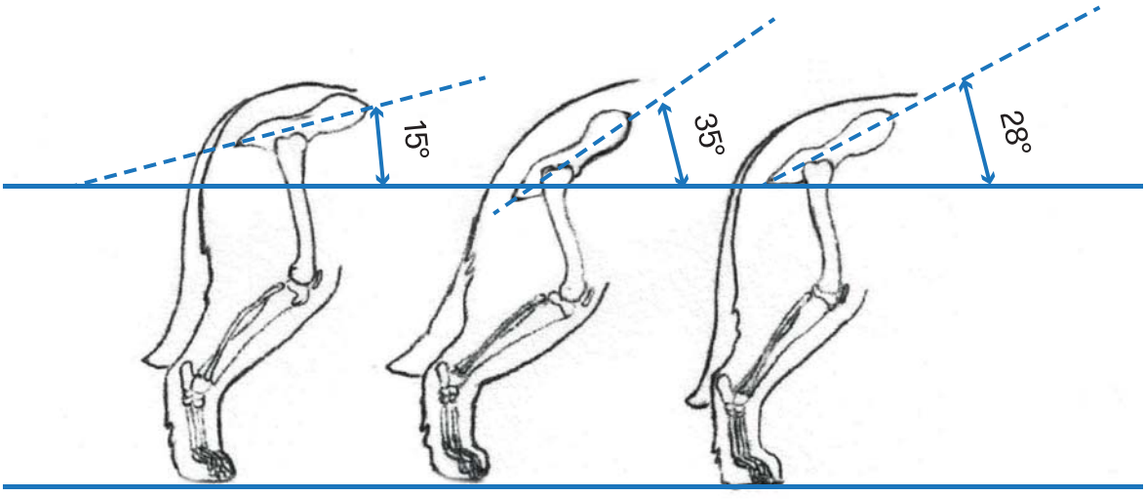
Formed by the seven lumbar vertebrae, it has been defined as "the bridge that holds together the front and back."
The loin connects in fact the back to the sacrum and consequently to the croup. Like a bridge, it must be moderately arched in order to better sustain the effort without sagging.
In the Newfoundland the loins are somewhat lengthened, which allows for better flexibility while swimming and which favors a slight undulation during movement. Naturally, it must never be too long and thereby lose solidity. On the contrary, it must be strong, wide and well muscled, characteristics that accentuate the convex aspect.
A weak loin, as seen previously for the back, disperses the strength of the hind and is negative for function.

The croup

The croup represents a very important structure in the mechanics of the animal because it is the center of transmission, where the action exercised by the posterior is projected upon the trunk and then transmitted forward. It has as a bone structure that includes the two coaxials, formed by the ilium, ischium and pubic bones, and the sacrum, which is made up of the fusion of the three sacral vertebrae. This complex is called the pelvic belt or pelvis.
The coaxials are connected to the sacrum by a series of ligaments that maintain their stability.

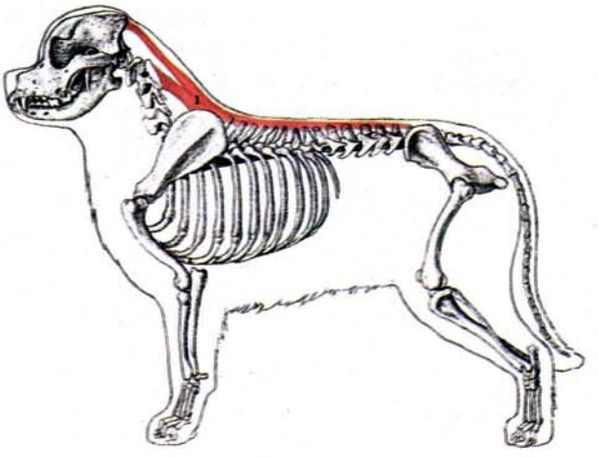
Several muscle groups have an influence on this complex which, as we will later see, are connected to the movement of the hind quarters: in particular the psoas, the gluteus, and the ischio tibialis. Under their action, the hind acquires the function of a lever with its fulcrum in the coxo-femoral articulation. The length and inclination (angle) thus have a very specific meaning.

In the Newfoundland, the length measured from the tip of the hip to the tip of the buttocks, represents about 33% of the height at the withers and supplies an ample lever to the power generated by the muscles.
The horizontal inclination of the hind, evaluated by the line that unites the iliac wing to the ischial protuberance is of about 28 - 30%. This inclination, halfway between the straight croup and the steep croup, allows for large movements of the limbs and the strength and muscular resistance needed for swimming.

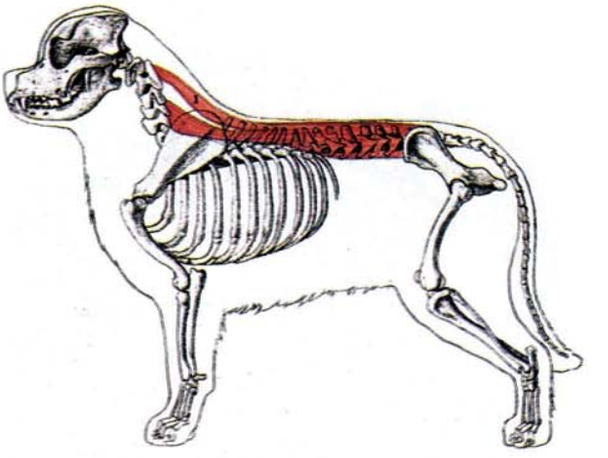


Straight croup | Steep croup | Correct croup

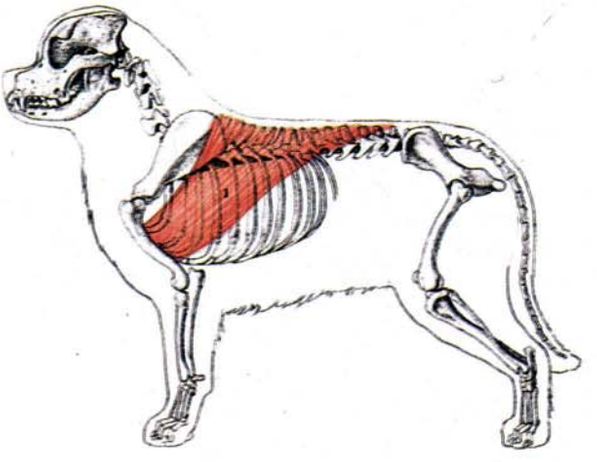
Furthermore, the hind must be wide, proportioned to the diameter of the chest, which is needed in a breed that requires the development of power and resistance from a solid base. This relative width is also helpful for floatation stability during swimming.
The hind must be somewhat rounded with great muscular development.
In females, a wide and well-built pelvis provides an asset for reproduction.



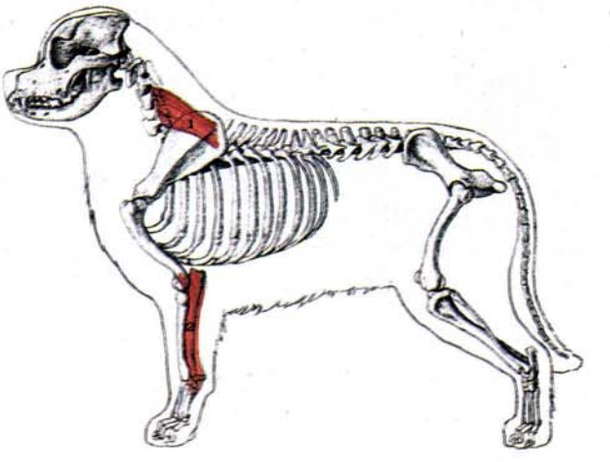
The Cervical Ligament.



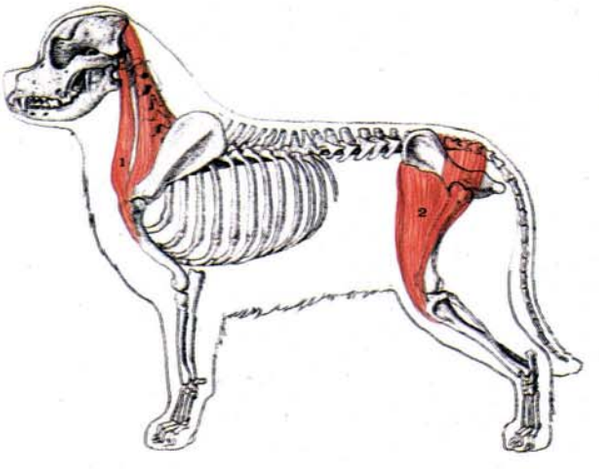
Ileo-Spinals Muscle.



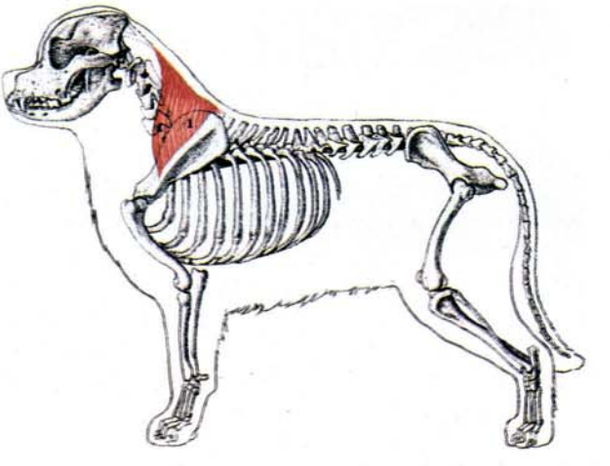
Grande Dorsalis Muscle.



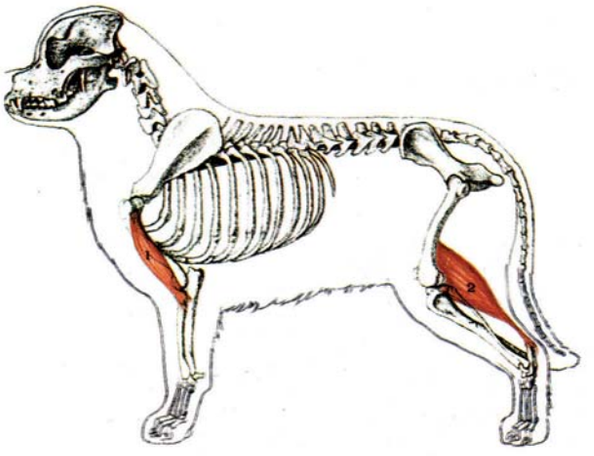
1 - Angular Scapularis Muscle.
2 - Oblique Flexor of the Metacarpal.



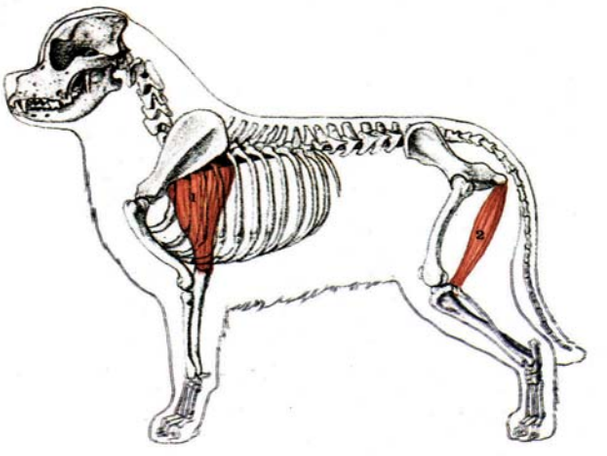
1 - Brachio Cephalicus Muscle.
2 - Tensor of the Fascia Lata Muscle.



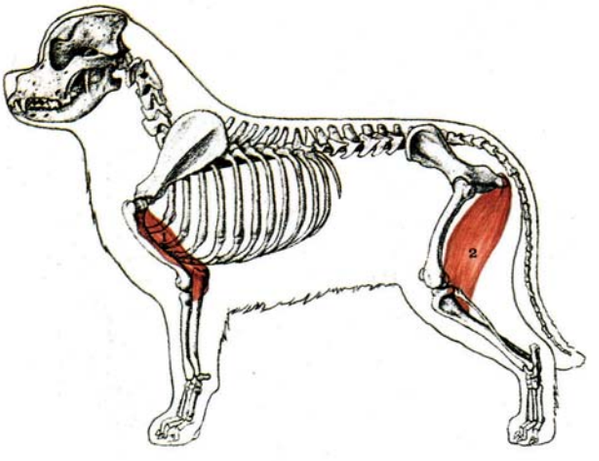
Trapezius Muscle.



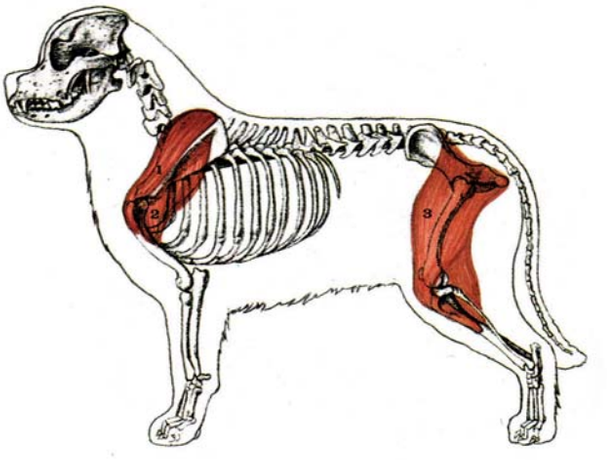
1 - Anterior Brachialis Muscle.
2 - Triceps Surae Muscle.



1 - Long Anconeus Muscle.
2 - Semitendinius Muscle.



1 - Lateral Anconeus Muscle.
2 - Semi Membranous Muscle.



1 - Supraspinatus Muscle.
2 - Deltoid Muscle.
3 - Biceps Femoris Muscle.

Limbs

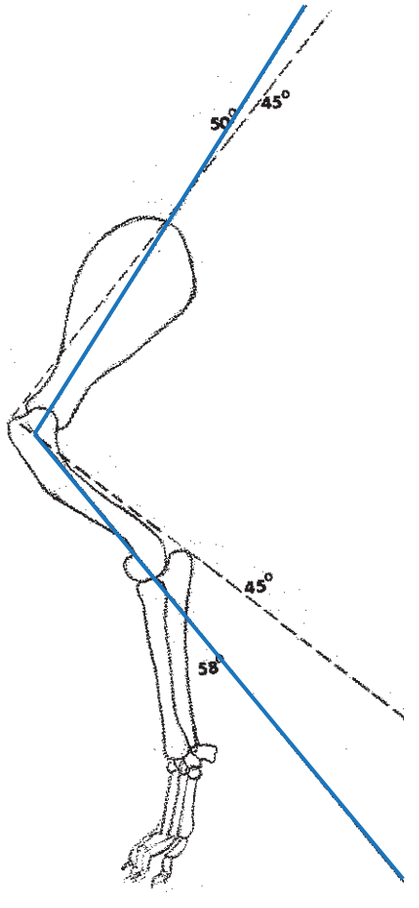
The Standard

"FOREQUARTERS:
The forelegs are straight and parallel also when the dog is walking or slowly trotting.
Shoulders: very well muscled and well laid back.
Elbows: close to the chest.
Pasterns: slightly sloping.
Forefeet: large and proportionate to the body, well rounded and tight, with firm and compact toes. Webbing of toes is present."

By observing movement, it is easy to understand that the forequarters are mainly used for support. During the successive phases of weight bearing, the burden of much of the body weight rests on the anterior limbs with increased intensity relative to an increase in speed; its structure must thus be able to absorb pressure.
The shoulder, which is the proximal region of the anterior quarter, is the best example.

The Shoulder

It has the shoulder blade as a base. This is a flat, wide bone that is not connected to the body by a real articulation, rather by an elastic ligament complex that anchors it securely to the trunk, forming the scapula (or shoulder blade) girdle.



The shoulder blade has more or less the shape of an upside-down triangle at the vertex of which is the scapula-humeral articulation. The acromial process (or spine) divides the scapula in all its length, determining its axis. It can be found by palpation, though it may be somewhat difficult because of strong muscle masses. By putting the dog in a stacked, erect position, its inclination allows one to evaluate the correct angulation of the shoulder. In the Newfoundland, which has wellinclined shoulder blades, it is about 50°.
If one uses other reference points for evaluation, such as the tip of the shoulder, one would find different values that appear quite unrealistic.
Its length must be measured on the same axis as well. This appears to be about 30% of the height to the withers.

A long and properly inclined scapula (shoulder blade) allows for a long stride and a good limb extension while swimming. However, a straight scapula usually corresponds to an overly inclined humerus; with the elbows posteriorly displaced, the center of gravity is moved forward, and the neck appears shorter. The result is a subject which is "thrown forward" with a heavy and non flexible gait. The foot is overloaded, the limbs are not well raised, extension is reduced and the subject skims the carpet. On the contrary, if the shoulder is too inclined, the neck rises, the center of gravity moves backwards, the hindquarters are overloaded and the movement is more static nature increases.
A positive trait of the shoulder blade is its mobility, not to be confused with looseness of the scapula girdle, which allows for abnormal movements with non-adherent shoulders and weaving elbows.
It can make the following movements: flexion, extension, adduction, abduction, and circumduction. These movements occur principally with the aid of the trapezius, rhomboid, and serratus ventralis muscles of the scapula. The first two muscles, being adductors, bring the tips of the shoulder blades closer to the body, within the limits allowed by body shape. In the Newfoundland, these are quite far apart, both because of the width of the thorax and because of the thickness of the subscapular and large dentate muscles.
All of the muscles in the region should be well developed; the muscles which coordinate the movement of the arm and forearm are connected to the shoulder blade.

The Arm

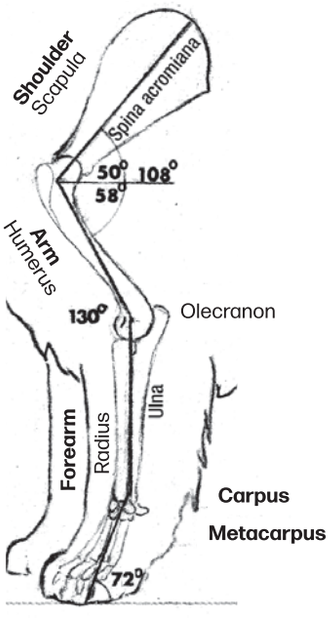
Contrary to what occurs in humans, the arm of four-legged species adheres to the body, to which it is connected for most of the upper two thirds.
The basic structure is given by the scapula (shoulder blade) and the humerus, a long bone that articulates by means of the glenoid cavity. These two together form the scapular-humeral angle and are closely tied together in such a way that altered dimensions or angles of one have repercussions on the other and viceversa.
The humerus, in the Newfoundland, is about as long as the shoulder blade, about 30% of the height, and its inclination on a horizontal plane is about 58 to 60°. The scapula-humeral angle is thus about 108 to 110°. These values refer to the real measurements of the bone, excluding the tip of the elbow, which also includes the olecranon.

As the angle of the humerus goes, we have just seen what happens when it is excessive. On the other hand, when it is not inclined enough, we find ourselves looking at a dog that stands tall on the front quarters, with a straight neck, good looking, but with an affected, nonproductive gait, chest retracted and front legs out of position. There can exist a whole series of compensatory combinations between length and angle that do not allow for proper function.
According to Solaro: "*A good indicative point to measure the proper inclination of the humerus is the tip of the elbow, dropping a perpendicular line from the most posterior part of the scapula to the ground. It should intersect the tip of the elbow.*"
Length and correct angles are the basis for correct movement; solid bone structure and strong muscles add up to these in order for the breed to performe its tasks.

The limbs must move in a parallel direction with reference to the median plane of the body.

When the elbow is moved outward (open elbow, out at elbow), this usually suggests defects in the forearm and metacarpal region (barrel-legged). This is also true when the elbow is rotated inward (closed elbow), which leads to toeing out.
The oscillation of the elbow that is seen during movement results instead, as previously stated, from loose ligaments and muscles.

As previously stated, a large part of the muscles that move the arm are connected to the shoulder blade. For the sake of simplicity we can divide them as follows: extensors (supraspinatus and infraspinatus) and flexors (large rotondus, coracobrachialis and deltoid). From the name it is easy to understand that these have the respective function of extending and flexing the humerus, a movement that normally occurs almost parallel to the median plane of the body.



Also present in the arm region are the muscles that permit the movement of the forearm: in front there are the flexors (biceps, and anterior brachialis), and in the back there is the anconeus, which has the function of extending the forearm on the humerus, and thus is very important in swimming. These muscles must be well developed and are felt as a rounded mass, when sliding with the hand from the shoulder to the elbow.

The Forearm

In the Newfoundland, more than in other breeds, the arm acquires a particular importance relative to the other areas of the body.
In the specific function of swimming it becomes, along with the carpal, metacarpal and foot, the oar with which the dog moves forward while floating on the water.

It is made up of the radius and the ulna that finish in the olecranon (elbow joint); this articulates with the humerus by way of the angular ginglymus, which allows mainly movements such as flexion and extension, and in the dog also allows pronation (downward movement) of the paw and supination (upward movement) of the paw.
In order to be efficient and resistant, the forearm must present an adequate but compact construction. It is relatively short, about 30% of the height to the withers, but perfectly made for the amount of force that it must exert. The forearm must not be thin or fragile but wide with solid bone structure without being spongy, with strong muscles and tendons.

It may seem superfluous to remember that in the arm, the motor muscles of a distal segment are situated with their center toward a contiguous proximal segment; therefore, while the muscles that move the forearm are situated near the humerus, those that circle the radius and ulna work for the metacarpals and phalanges. On the front face of the radius, we thus find the phalanges and metacarpal extensors; on the back side, we find the various flexors, most important of which is the oblique flexor of the metacarpal.

Starting in two distinct fascia from the humerus and olecranon, this strong flexor reaches the pisiform and the metacarpal bones. It determines the carpo-cubital canal that must be well marked in order to indicate a more appropriate lever for the pisiform and thus a major strength of the forearm, the correct direction of which must be perpendicular to the ground.

Apart from any pathological curvatures, any displacements from the vertical are mainly revealed in relation to defects in the surrounding areas. Thus a straight shoulder with an inclined humerus brings the forearm backward (underneath itself) on the other hand, a straight humerus makes it advance (outside itself).

The Carpal

The carpal follows the vertical line of the forearm. It corresponds to the wrist in humans and is made up of seven bones placed in two lines, one above the other.

They are connected together and with the contiguous regions by a series of very complex articulations and ligaments. From this one can conclude that loose ligaments may easily alter the inclination.
The most frequent deviation is toward the inside, with outward rotation of the metacarpal and of the foot: this is called mancinism (pedis valgus) or toeing out; when the movement is outward, with the metacarpal and foot rotated inward causing cagnilism (pedis vara) or toeing in.
Less frequent is the movement forward, or forward displacement. However, in young subjects, an anterior convexedness of the carpal is physiological and connected to the growth cartilage of the bone. In the Newfoundland, the carpal must be wide, short, and very solid.

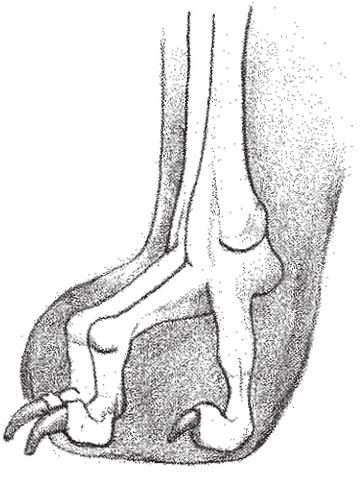
The Metacarpal

The metacarpal comprises the five metacarpal bones, each with a cylindrical and elongated shape, except for the metacarpaleus, which is much shorter than the others.
The metacarpal may be flexed, extended and moved laterally; these movements are of great importance for the mechanics of the animal: they are shock absorbers.
Its inclination in relation to the carpal and forearm allows it to absorb and distribute the upward and downward pressures coming from actions and reactions of contact with the ground. In this way, these traumatic reactions are not passed on to the elbow and shoulder.
In the Newfoundland the metacarpal is relatively short but well inclined (72° to 75°). It must be wide and very solid, both to hold the body weight and to have a better spread while swimming. Metacarpals that are too long, too flexed, straight, or deviated from the perpendicular line constitute a defect.

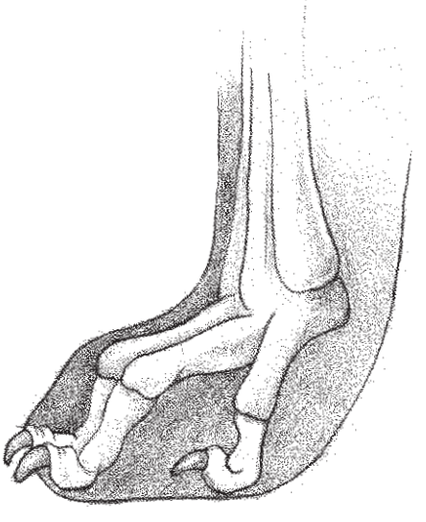
The Foot

As in the case of the metacarpal, the foot has the function of a shock absorber. It is formed by five toes, each one formed by three phalanges and a nail, numerous tendons and plantar pads that are meaty and hard and that protect the foot. Of these five toes, only four have contact with the ground; the one that does not touch is the first, which is articulated at the metacarpal and which is shorter; it corresponds to the thumb in people. The foot is large and wide in order to support the body's weight.

The toes must be strong and arched in order to allow for good support and a strong hold when the dog must move on slippery ground (i.e. rocks). This structure gives the foot a rounded shape called “cat foot” which is typical of the breed. The “hare foot” shape with the two central phalanges that are longer as well as open toes or flat toes caused by ligament and tendon weakness are considered defective.



Cat foot



Hare foot

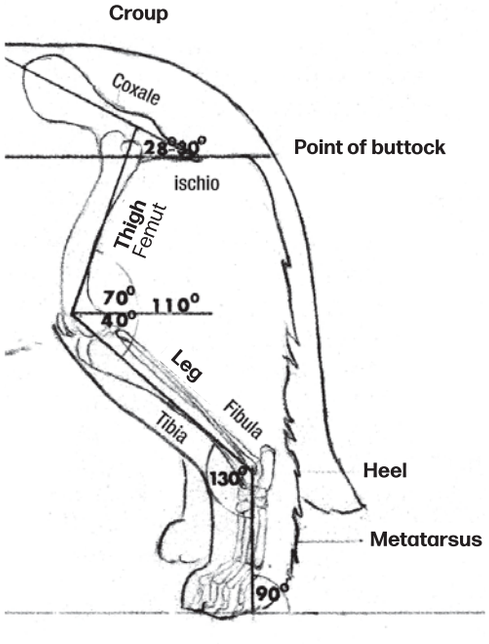
As for the Newfoundland’s foot, something must be said about its being webbed. It has often been said that the foot is webbed as an adaptation to the function of swimming. Although it is true that the membrane between the toes is well developed, and that while swimming, the dog opens its toes and uses them for a better hold on the water, the term webbed foot refers to the foot of other species such as the beaver or some aquatic birds, which have a true natatorial membrane.
In the canine species, an interdigital membrane formed of thin fiber instead connects the toes. Depending on the breed, this membrane can be more or less accentuated.
In the Newfoundland it is particularly developed and is thus a useful complement for its function.

The Standard

"HINDQUARTERS:
Because driving power for pulling loads, swimming or covering ground efficiently is largely dependent upon the hindquarters, the rear structure fo the Newfoundland is of prime importance. The pelvis has to be strong, broad and long.
Upper thighs: wide and muscular.
Stifle: well bent but not so as to give a crouching appearance.
Lower thighs: strong and fairly long.
Hocks: relatively short, well let down and well apart, parallel to each other; they turn neither in nor out.
Hindfeet: firm and tight. Dewclaws, if present, should have been removed."

The Thigh

If the front quarters have support as their main purpose, the hind quarters are much more active in propulsion.
The thigh, which constitutes the first segment, has the femur as underlying bone structure; the femur is articulated with its head in the acetabular cavity of the pelvis.
The coxofemoral articulation is the fulcrum through which the push is transmitted to the body; thus, its morpho-functional integrity is of the utmost importance.
In respect to the bones of the anterior quarter, the thigh is longer than the others, about 34° of the height to the withers.
The femur forms an angle of about 95° with the coaxial axis and is about 70° inclined on the horizontal plane.
The thigh must be strong and solid like the buttocks, which form the posterior margin, and must be thick. This indicates the development of muscles and consequently correct functioning. A subject showing a malformation of the hip, such as dysplasia, will take the weight off the hind quarters, using these muscles as little as possible. Lack of exercise causes a lack of development of the muscle fibers and consequently causes thin and underdeveloped thighs.



The coxofemoral articulation allows the thigh to flex, extend, adduct and abduct. In the Newfoundland, these combined movements are particularly evident while swimming and are useful to the dog for maintaining stability while floating.
The thigh has a complex series of muscles; a few, such as the parameral, act on the femur (flex). Most instead act contemporaneously on the thigh and leg, so that although the semimembranous and the semitendinous muscles, which are placed in the back and form the buttocks, are extensors of the thigh and flexors of the leg, the femoral biceps, tensor of the lateral fascia and femoral quadriceps, placed in the front, extend the leg and flex the thigh.
Based on the intervention of the antagonist muscles, thigh and leg will be able to move separately.

The Leg

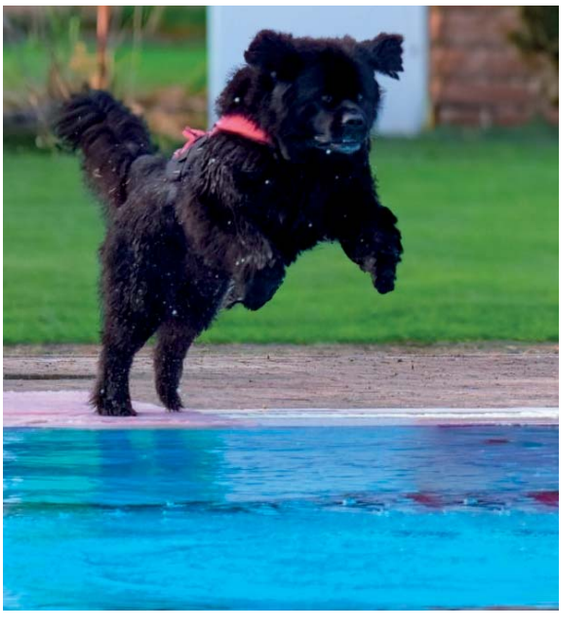
The leg is formed by the tibia, connected to the femur through the hinge-like articulation of the knee, and by the fibula, a long and narrow bone situated in the posterior lateral position.
At the bottom, the tibia touches the hock and articulates at the astragalus. Its length is a bit superior or equal to that of the femur, and its inclination on a horizontal plane is of about 40°.
This provides for a correct angle and proportion allowing for a correct extension of the limb, making the muscles efficient both on land and in the water.
The most important of these muscles is the sure triceps. It is formed by the gastrocnemius and the soleus muscles, which are connected to the calcaneus by the Achilles tendon, and it is one of the principal motors in the hind push.
Along with the long peroneus tendon, this muscle works extending the metatarsus. Always on the posterior face are the superficial and deep flexors of the phalanges. Anteriorly, there are the anterior tibialis, the metatarsal flexor and the extensor of the phalanges.

The Hock and the Tarsal

This component is formed by seven short bones, disposed in two rows and solidly connected together. In the proximal row are the two most important bones: the astragalus and calcaneus. The astragalus presents a particular surface shaped in a spiral-like manner and upon which it articulates, like a negative image, with the tibial cochlea. The particular structure of the articulation and the eccentric disposition of short and strong crossed ligaments allow, once maximum tension is reached, a sprint that aids the push.
Equally important is the calcaneus that, aside from giving a solid insertion point for the Achilles tendon, is also used for the passing of the superficial flexor tendon of the phalanges.

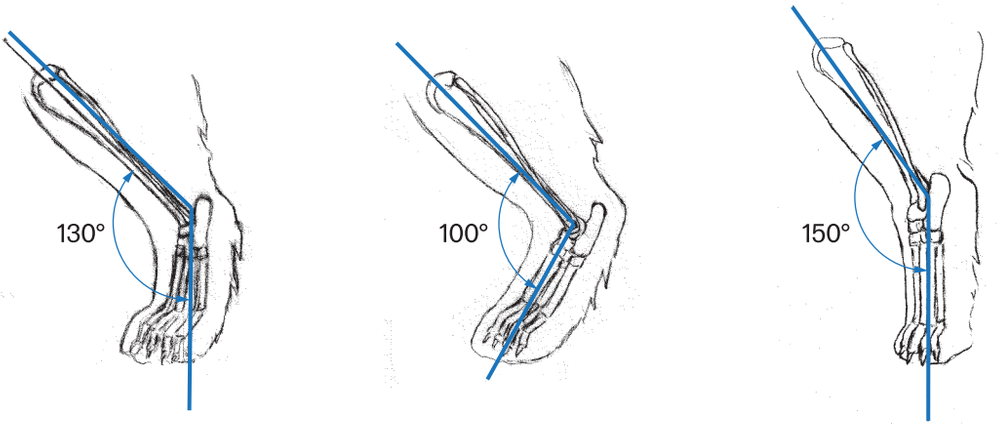
The entire articulation of the tarsal must be very solid because it is upon it that all of the efforts and reactions to impulses converge and furthermore the dog carries the weight of its body on the hind quarters, both in the beginning of the gait and at the moment of jumping or diving.

Faults in plumb line with respect to the median plane of the body are cow hock (varus - inward rotation) and dog hock (valgus - outward rotation of the hock).



The Metatarsal

What has been said about the heel is true also for the metatarsal. Formed by the metatarsal bones, one of which is rudimental, it presents a more rounded section in relation to the front, which is wide and flat.
The metatarsal constitutes, along with the tarsal and the phalanges, a second-degree lever from which the impulse of the posterior is sent.
It has as its fulcrum the point where it touches the ground. Its resistance is in the tibial-tarsal articulation where the weight of the body is concentrated and the power is at the top of the calcaneus that the surae triceps acts upon. The metatarsal must thus be short and very solid, with strong tendons that are perfectly positioned.
When the dog is stacked, the metatarsal should be perpendicular to the ground and form with the leg an angle of about 130°.
At rest, it is held slightly inclined forward and the tibio-metatarsal angle appears a bit more closed. If the metatarsal is too flexed, it will be positioned underneath itself and it will be said that the subject has "sickle hocks".
However, a too wide angle results in heels that are so straight that they tend to be inclined forward with serious functional disorders.



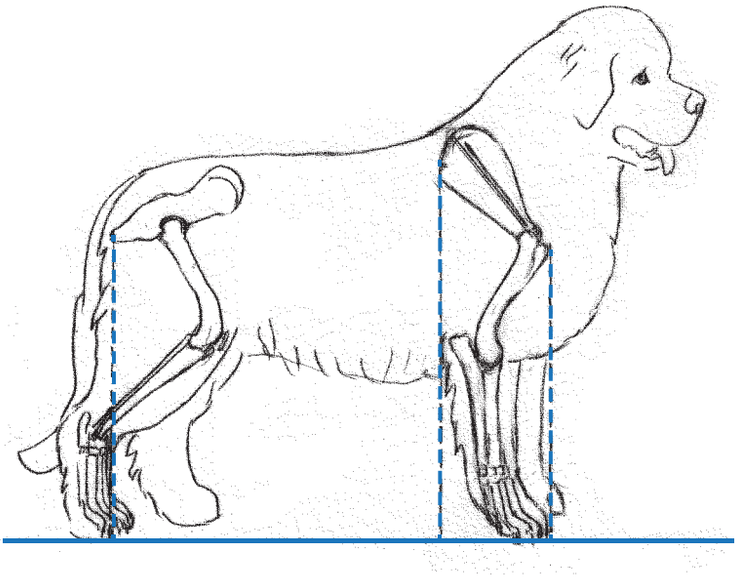
Correct hock | Sickle hock | Straight hock

The Foot

The back foot is a bit less wide than the front one, but always solidly in touch with the ground and rounded. The fifth toe, or rear dewclaw, which may appear rudimental, is situated at the level of the metacarpal. It must be removed in the first days of life because it has no use and may cause distortions or traumas if it hooks onto something.

PERPENDICULARITY

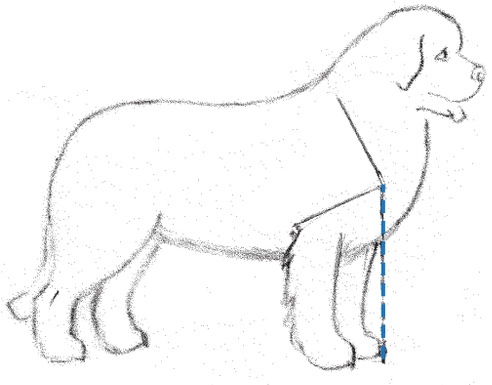
Discussions about the limbs have often mentioned the defects in perpendicularity with the ground. It thus is useful to define this term and to schematically see the main concepts. Essentially, the term means “relation between the angle and direction of the limbs and the line that falls perpendicular to the ground.” This will be examined for the front and back limbs, from a profile view and from the front and rear view placing the dog on a horizontal plane.



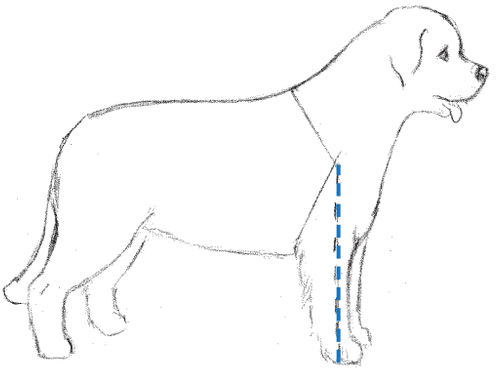
Correct perpendicularity

Front Perpendicularity from a side view

A vertical line dropped from the tip of the shoulder must reach the ground barely touching the foot. If the line falls too far forward, the subject is said to be “standing underneath itself”; if it falls too far backwards it is called “standing outside of itself”.
A vertical line dropped from the center of the humero-radial articulation must divide the forearm and metacarpal into two almost equal parts, touching the ground just behind the foot. In relation to this line, if the carpal is arched forward it is said to be "knuckling over", if it is arched back-wards it is said to be "down in pastern".



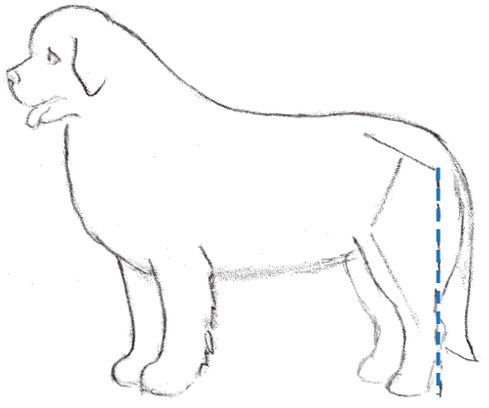
Underneath itself - thrown forward



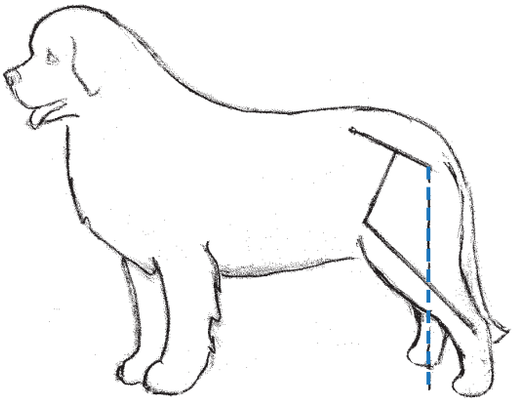
Outside of itself - stretched out in front

Rear Perpendicularity from a side view

A vertical line dropped from the tip of the buttocks must barely touch the tip of the toes, with the metatarsal vertically placed. If the line falls toward the inside of the foot, the dog is said to be “standing underneath itself in the back”; if it falls amply forward with reference to the foot, he is said to be “standing outside of itself in the back”.



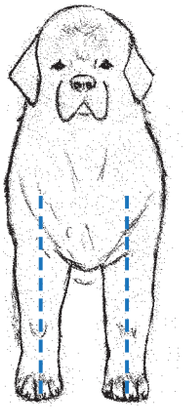
Underneath itself in the back



Outside of itself in the back

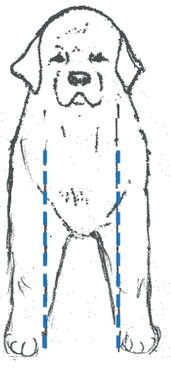
Front Perpendicularity from a Frontal View

A vertical line dropped from the tip of the shoulder must divide in two equal parts the combination of the forearm, carpal, matacarpal and foot.
If the line falls toward the inside of the foot, the subject is said to be “open in front (or out at elbow)”; if it falls outward, it will be said to be “closed in front (or pinched in front)”.
These terms are not to be confused with a subject that is “narrow and wide”, which are terms that refer to the width of the thorax.
If the forearms are correct but the metacarpals are deviated outward, toeing out occurs; if they are deviated inward, toeing in occurs.

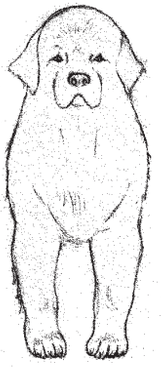


Correct front

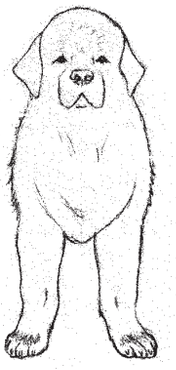
Closed in front



Open in front



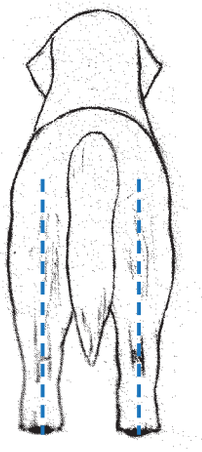
Toeing in



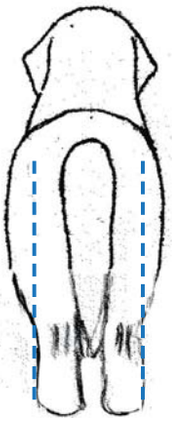
Toeing out

Posterior Perpendicularity from a Back View:

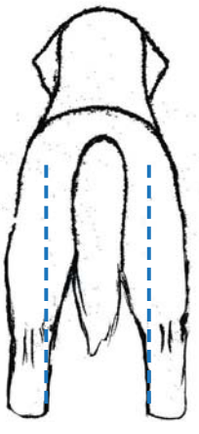
A vertical line dropped from the tip of the buttocks must divide into two equal parts the combination of the tip of the hock, the metatarsal and the foot.
If the whole limb is outside the line, the subject is called “open behind”; if it is inside the line it is called “closed behind”.
When the heels are rotated inward, and the feet outward, the subject is said to be “cow hocked”; if the heels are rotated outward and the feet inward, it is defined as “toeing in in the rear”.



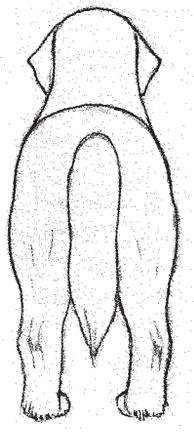
Correct rear perpendicularity



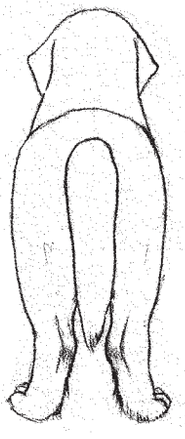
Closed behind



Open behind



Rear toeing in



Rear toeing out - cow hocked

Tail

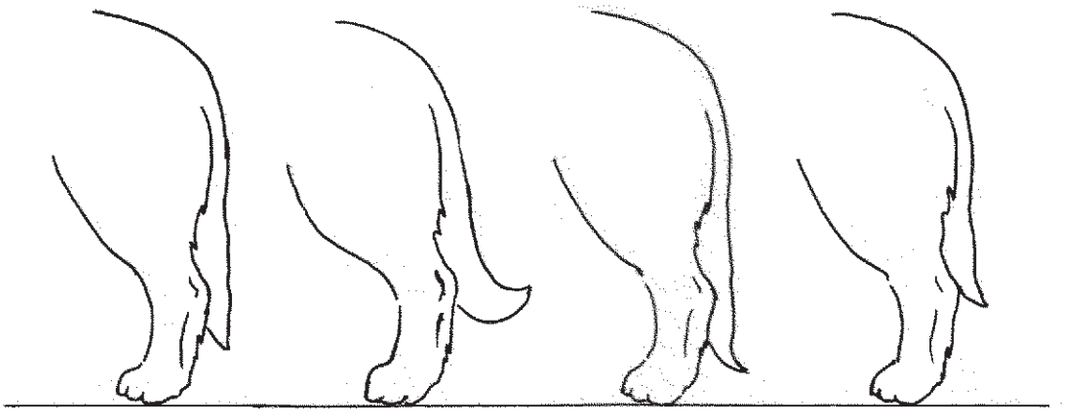
The Standard

"The tail acts as a rudder when the Newfoundland is swimming; therefore, it is strong and broad at the base. When the dog is standing, the tail hangs down with, possibly, a little curve at the tip, reaching to or slightly below the hocks. When the dog is in motion or excited, the tail is carried straight out with a slight upward curve, but never curled over the back nor curved inward between the legs."

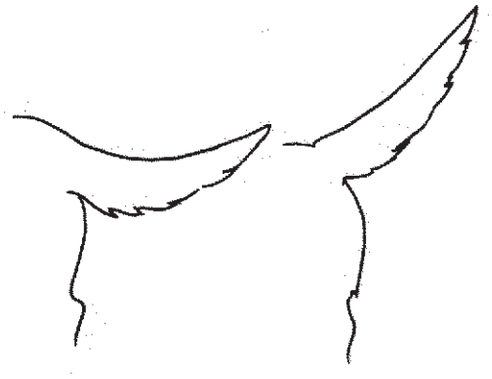
The tail is made up of caudal vertebrae, elevator muscles, flexor muscles and lateral adductor muscles.
It follows the profile of the sacrum; its insertion is thus related to the upper inclination of the croup, corresponding to the line drawn from the iliac wing (crest) to the attachment of the tail.
Usually, a poorly inclined croup corresponds to a high attachment of the tail; if the croup is too sloping, the attachment of the tail is too low.

If the croup is well formed, the tail presents a good insertion and functions at its best as a rudder while swimming.
The tail is held horizontally while swimming and is rigid; its lateral movement aids in directional changes. For this purpose it is also necessary to have well-developed muscles in the tail, thus it must have a wide and strong attachment and taper off gradually.

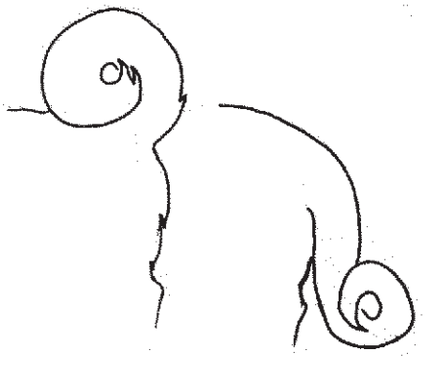
When the dog is relaxed, the tail length must reach down to the hock joint or a bit lower. The profile is straight or with a slight curve at the tip. Normally it is held down; when the dog moves quickly, it is held instead at the height of the back. One must always keep in mind however that, like the ear, the tail represents a nonverbal expression in the dog. Thus, it could happen that it is held higher when the dog is excited, especially in the male, while a timid and distrusting dog holds it between the hind legs in a position of defense.
An important defect of type is a tail held curled on the back, such as that of the Nordic dogs. Other tails that are considered defective are those held in the shape of a ring and lowered, or which have vertebral ankylosis (or kink).



Straight tail (correct) | Slightly curved tail (correct) | Long tail | Short tail



Tail carry in movement or excited



Defective tails, curved back and ring tail

The hair on the tail is the same length all over and does not form fringes; it presents short and shinier hairs only at the attachment, which makes powerful and well-inserted tails even more evident.

Movement

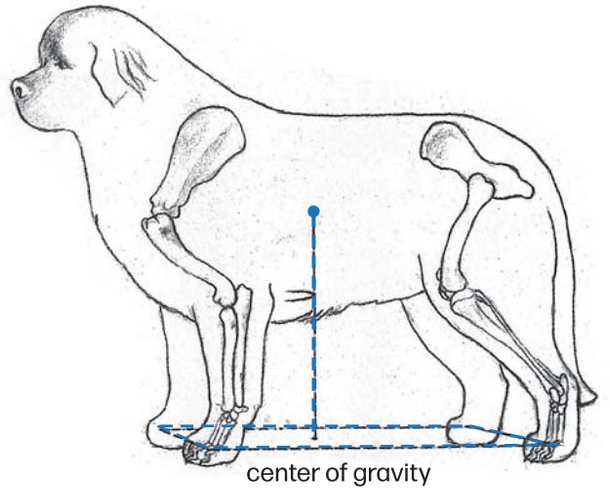
The Standard

"The Newfoundland moves with good reach of the forelegs and strong drive of the hindquarters, giving the impression of effortless power. A slight roll of the back is natural. As the speed increases, the dog tends to single track with the topline remaining level".

Mechanics and Kinetics

Movement represents the live expression of the somatic characteristics of a breed, and the study of the dynamics allows one to understand even further why morphology, form and function are so tightly intertwined. Every movement that we observe and that occurs so naturally and with such agility, making the analysis of it quite complicated, is the mix of a perfect game of balance in which muscles, bones and forces of gravity are the players. The basis of the concept of movement is the concept of "center of gravity".

All bodies are subject to the force of gravity and each has its own center of gravity. This is the point where the lines of the forces of gravity, resulting from all body parts, converge. Thus, if one could keep a body suspended on its center of gravity, it would remain forever perfectly in balance.



center of gravity

In the dog, the center of gravity is situated more or less at the meeting point of the two perpendiculars: the vertical tangent to the xiphoid apophysis of the sternum, and the horizontal one, situated on the sagittal plane of the body at half the height of the thorax. If we trace a quadrilateral shape, joining the points where the feet meet the ground, we would obtain a base for support. Only if the vertical plane that passes through the center of gravity falls on this base will the dog be able to maintain a position of static balance.

If the animal, while raising the front leg and pushed by the hind leg, moves its weight forward, this condition of balance will cease; the center of gravity will be shifted forwards and the dog will have to take a step in order to maintain its balance.
From this, one could derive that forward movement takes place under the action of two forces: the hind push that begins the movement and the gravitational force which, acting upon the center of gravity, continues the action. This diminishes muscular effort and occurs more quickly if the center of gravity is high. The movement will be greater when the limb upon which it depends is long.

A correct and narrow base and long limbs, typical of the dolicomorphs, will thus be the prerogative for speed, but this condition, which forces the subject to make an increased number of steps and jumps, will tire the animal in a short time. It will thus achieve the maximum performance, but only for a short while. Furthermore, long limbs have long muscles and bones that are relatively thin, capable of large movements but useless for hard and long-lasting effort.
In the same manner, a narrow chest with height development of the thorax alone would not allow for a solid hold on the ground while pulling and would lead to less floating stability while swimming.

On the other hand, transversal diameters that are overly developed, such as a barrel thorax and excessively short limbs, mean elevated statics. The Bulldog is built to have a solid base, but could you imagine him jumping between two rocks? The Greyhound is agile and swift, but how long do you think he could fight the waves?

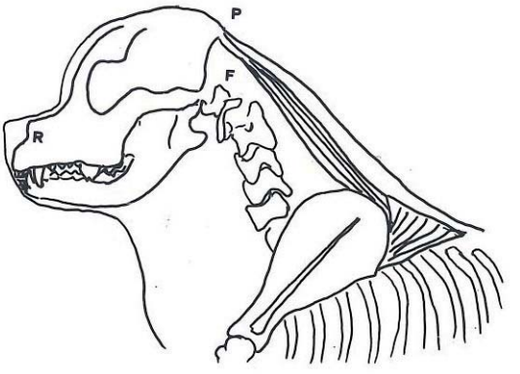
More than man, it is Nature which, unlike other breeds, created the Newfoundland, has been able to expertly mix all the ingredients to have a versatile dog perfectly suited to the needs of the native island. Thus, he must be a "miler" or long-distance runner rather than a "sprinter", useful in work that requires strength and resistance along with agility. The structure of the mesomorph, with its strong bone structure and powerful muscles, perfectly coincides with this.

Before delving into the various gaits, it will be helpful to examine how bones and muscles work. These are basically levers that may develop further force and precision, depending on the location of the points of power and resistance in relation to the fulcrum. In the animal body, the power (P) is generated by the muscular action, the resistance (R) by the weight and the fulcrum (F) is situated sometimes at the level of the articulations and sometimes at the ground level.

We will thus have the following:

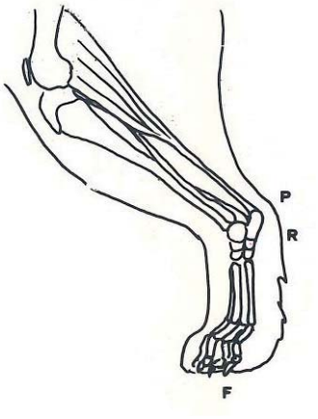
1. *First-degree lever or balance lever*, in which the fulcrum is between the power and the resistance; this is most advantageous as the arm of the lever is larger in relation to that of resistance.

1. First-degree lever $(PF \leqq RF)$;



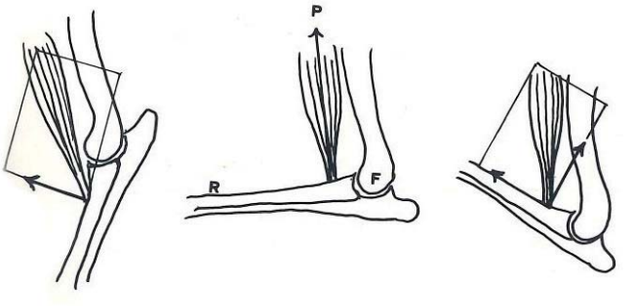
2. *Second-degree lever,* or lever of strength, in which the resistance is between the fulcrum and the power; consequently, the power arm is greater than that of resistance.

2. Second-degree lever $(PF > RF)$;



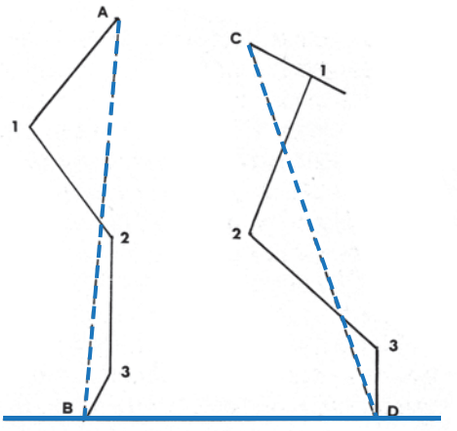
3. *Third-degree lever, or lever of speed*, in which the force is between the fulcrum and the resistance. In this case, since the power lever is always inferior to that of resistance, the resistance movement will be larger than the amplitude of the muscle contraction; however, muscle strength must be higher than resistance weight.

3. Third-degree lever $(PF < RF)$.



Depending on the position in which the long axis of the bone is placed at the moment in which a muscle comes into action, the muscle can work with the power of different degree levers. For example, the posterior muscles of the leg activate a second-degree lever when, with a limb on the ground, the fulcrum is on the ground; a first-degree lever is used when, with a limb lifted, the fulcrum shifts to the articulation level.

Muscles do not only present dynamic effects, but also static effects and act both as regulators and inhibitors. A stationary subject, perfectly still, is the result of many muscular tensions that counterbalance the gravity force that do not allow for closure of certain angles to balance one against the force of the other.
The various movements are achieved through the activation of agonistic, or straining, muscular groups, capable of producing the same actions, and of groups of antagonistic muscles, able to determine the opposite effect and to regulate the intensity and the speed of the movement with their tone.



Mechanical axes of hindquarters and front

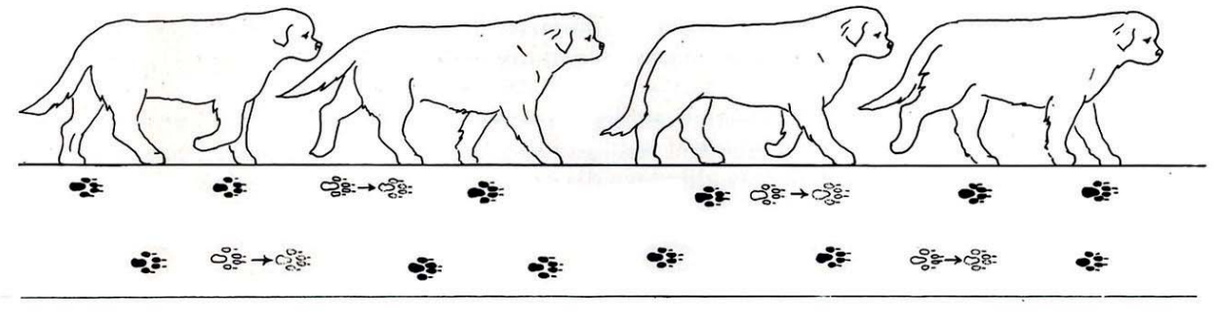
When a muscular action force is generated, a movement of the long axis of the bone occurs. The extent and speed of such movement are proportional to the intensity of the muscular force exerted.
By observing the angles of the limbs and joining the proximal and distal extremities of their mechanical axis, one immediately realizes how the anterior limbs are better designed to support action, whereas the rear limbs are more suited to the push forward. This impulse, transmitted through the spine and aided by the cephalo-cervical balance, is the basis of the movement.

Good movement is essential for a utility dog designed to perform strength and endurance work. Correct balance allows forces to be used with lower energy expenditure: this occurs when the front and rear are well built and well balanced and the transmission line is correct. The classic gait for the Newfoundland is the trot.
Its rectangular frame, its fairly long and well-angled bone radii, its moderately low center of gravity, its strong muscle system provide for the expression of a rhythmic and powerful movement with strong thrust and a good extension that covers a lot of ground with the least number of steps.

Unlike people, who walk in an erect position and for whom the phases of suspension and elevation only involve one limb at a time, dogs are quadrupeds for which standing calls for both a synchronism of the anterior and posterior chain and also of the diagonal biped; that is to say, posterior right-anterior left, posterior left-anterior right.
This sequence is seen in the different gaits, however, with different speeds and paces. It varies only in the pacing gait, a gait considered defective in Newfoundlands, and in which the limbs on the same side are simultaneously carried forward: posterior right-anterior right, posterior left-anterior left.

The walk

It is a slow gait, done in four beats. The touching of the ground is always on three limbs and the movements of the center of gravity are moderate both in a vertical and a transversal sense. The forward movement of the head, and the lifting of one of the front limbs are the initial phases of the walk related to the push of the diagonally opposed posterior; at this point, the front limb that is suspended will be moved forward and touch the ground in order to receive the weight of the body, while the hind leg that gave the push is suspended and moved toward the same anterior side. When this leg touches the ground, the second front limb is raised and the sequence begins once again on the other side. The pace of raising is the following: anterior right-posterior left, anterior left-posterior right. In the Newfoundland, the walk must not be shortened but normal or moderately lengthened; the back footprint does not, however, overtake that of the anterior footprint.
In the slow gait, the limbs move parallel to the body and the vertebral column shows a slight sinuous movement typical of the breed. The neck is held in an almost horizontal position.



The Trot

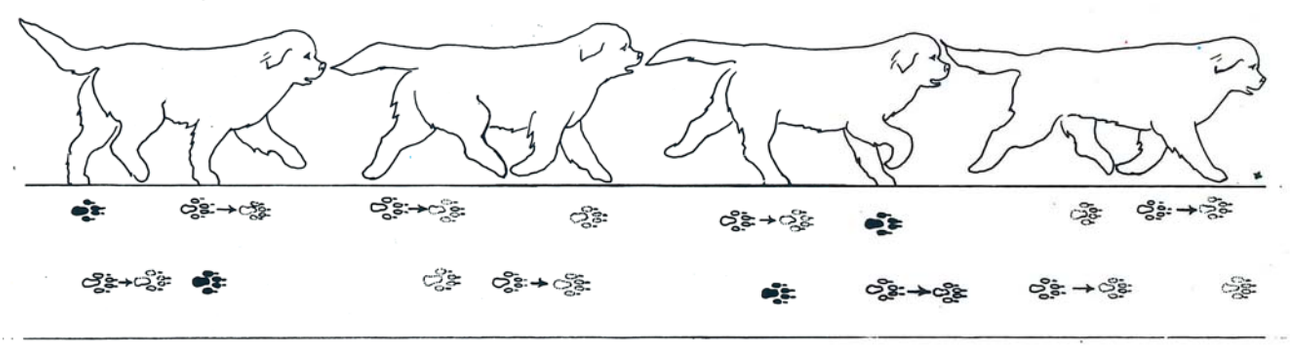
The trot is used often by the dog, even for short distances; similar to the walk, the trot does not require an excessive energetic expenditure. It is a diagonal gait, in two beats in which the weight alternates between one diagonal (anterior and posterior counterlateral) and the other.

In the small trot (which is a walking gait), the two beats are rhythmically alternated without phases of suspension; in the normal and lengthened trot (flying gait), the beats shorten their pace so that all four of the limbs are raised from the ground. In the beginning, the diagonal two legs that are in contact with the ground project the body up and forward. There follows an instant of suspension during which the diagonal is changed, after which the other diagonal receives the weight and repeats the sequence.

Single track

The center of gravity will be subject to major vertical and transversal movements, modest in respect to those of the gallop.

A correct angle and length between the anterior and posterior train is essential for the trot to be harmonious and balanced. During the slow trot, the Newfoundland presents a typical rolling of the skin that reminds one of a bear, a rolling that stops when the gait gets faster. As the speed of the gait increases, the direction of the limbs, from high to low, tends to converge toward a central or single line (single track). This tracking must not be confused with an altered direction of the front limbs, caused by an outward rotation of the elbows, or of the hind quarters, which is shown by narrow movements with hocks that are close together.



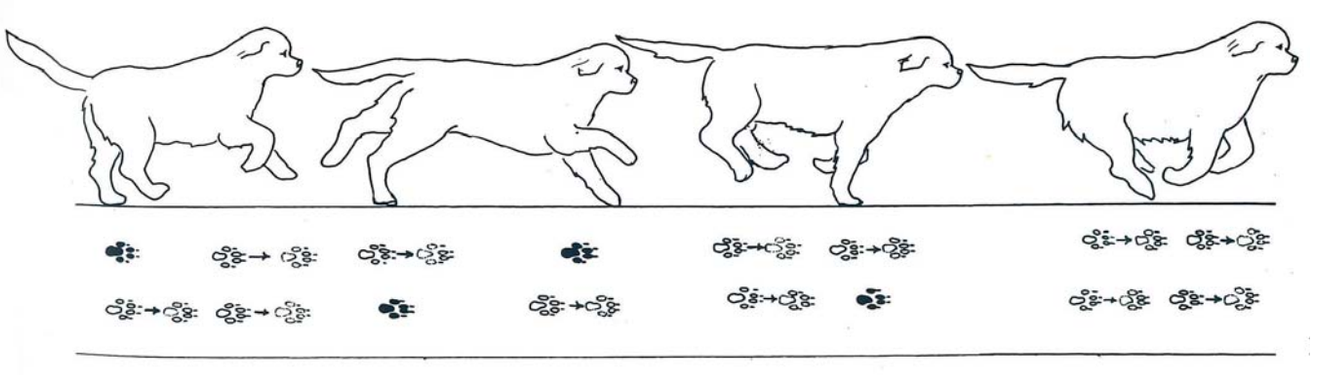
The Gallop

The gallop is the fastest of the gaits as well as the most tiring. It is similar to a sequence of jumps. The head and neck balance beam and the vertebral column are actively used, and the center of gravity undergoes notable movements, mainly in the vertical direction.

Although the photographic analysis of the gallop reveals complex components that are not noticed by simply looking, we will try to make examples of the sequences, describing it as a jumped gait in three tempos: hind, diagonal two feet of the same side, counterlateral anterior followed by a suspension.

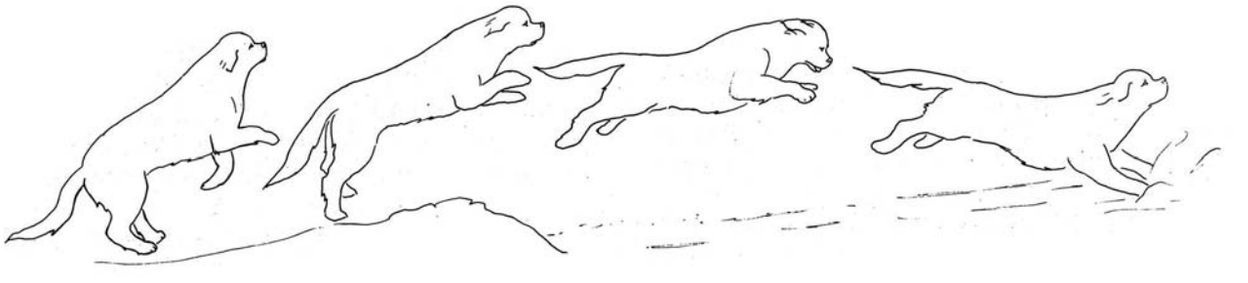
After practically crouching on the back quarters, the dog projects itself forward and upwards, putting the weight first on one of the hind limbs and then on the other. For example, the push begins on the left hind leg, immediately followed by the right hind leg, and with a slight downbeat, the front left limb while the body extends itself forward.

Following in the trajectory he crunches down on the front right limb, which is now the weight bearer, and which pushed the dog away from the ground. A suspension follows after which the dog once again lands on the left hind leg and the sequence begins again.
During the gallop, because of the strong demands that are placed upon the bones, muscles and ligaments, especially in a heavy dog such as the Newfoundland, a perfect functioning of all of these systems is essential, without which the gait could not be powerful and loose. For example, when there are hip problems such as dysplasia, the push may be made with both of the hind legs together in the effort to bypass the functional deficiency.



The dive

As with swimming, the dive is a natural movement for the Newfoundland though, when given the choice, it usually prefers to enter the water slowly.
The dive is essentially a long jump for which quite a bit of power in the whole hind train is necessary.

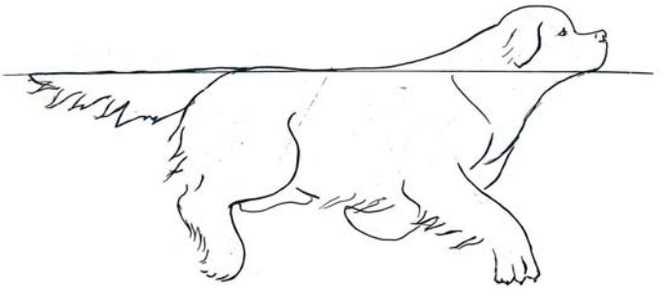


In the beginning, the dog crouches down on the pelvic limbs, flexing thighs and legs, the ischiotibial muscles (semimembranous and semitendinous), which serve as a first degree lever on the back part of the coaxial, rotate the axis on the fulcrum of the coxofemoral articulation, which raises the anterior section of the vertebral column. At this moment, the triceps come into play, which by means of the Achilles tendon with strong tension on the calcaneus, provokes the opening of the angulation of the hock and the forward and upward projection of the body.

From the skeletal rays, the impulse is transmitted to the pelvis and to the vertebral column, while the cephalo-cervical balance extends itself forward and is lowered along with the front limbs. When the dog touches the water, the head is usually held high and does not go under water, already in position for the swimming that will follow.

Swimming

While swimming, the concept of force of gravity is commuted to the concept of floating. The body, immersed in the water, receives a push that sustains it. This keeps the body semisubmerged according to a line of flotation from which the head, extended forward, the upper part of the neck, the withers, and at intervals the upper part of the back, the hind and the tail emerge.

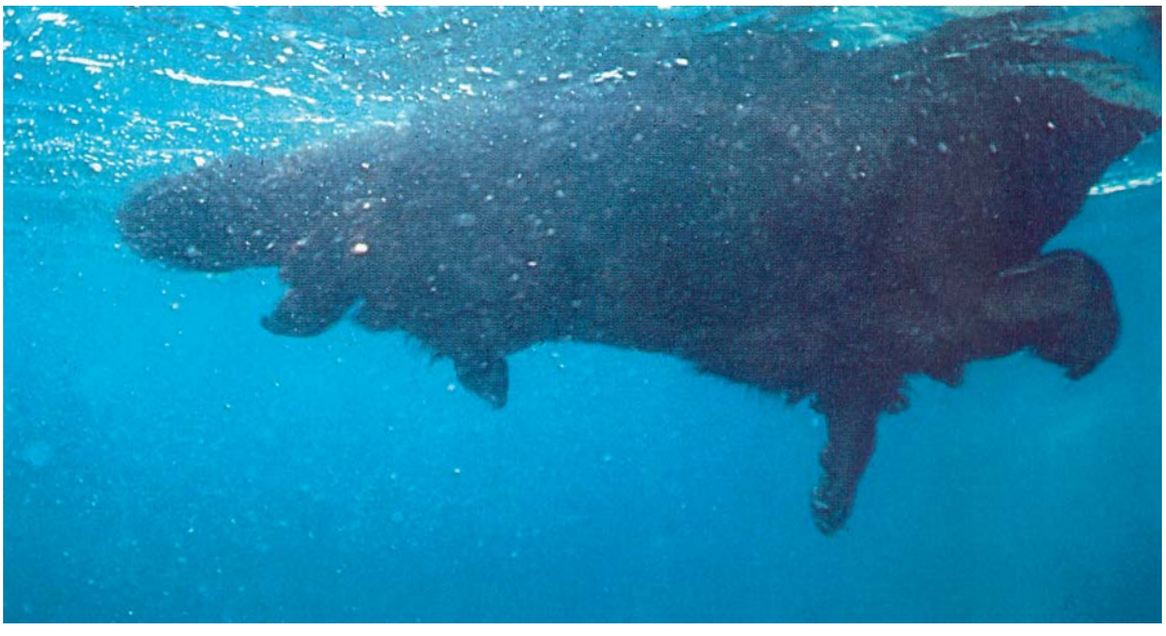


Differently from other breeds, the Newfoundland always holds a horizontal position in the water. In this position, the limbs are moved alternatively such as while walking without having to bear the weight of the body, but with the precise goal of moving forward, gripping the water.

The sequence is the same: anterior right-posterior left, anterior left-posterior right, but the execution of the movements is quite different.
The front legs assume an important role as propellers. The forearms are flexed on the humerus as much as possible and brought upward, after which they extend forward, down, and finally backward. In this movement, there is participation by the thick, wide metacarpals and of the feet, which allows for the best use of the intradigital membrane that holds the toes apart. A strong action on the water pushes the body forward. After this, the limb returns to its flexed position.

Apart from muscles of the shoulder and arm, other muscles come into play in order to have a better "grip" on the water while swimming; in particular the anconeus muscles and the flexors of the metacarpal and of the phalanges must be robust and well developed. At the same time, the hind quarters work in a similar manner: they are alternatively brought down and forward exerciting a strong push on the water that is completed with a final sprint during the moment of maximum extension. As for the anterior train, the muscles of the thigh and leg, along with the flexor tendons of the metatarsal and of the phalanges, must be solid and well developed.

At the same time as the limbs propel in an anterior and posterior directions, they also make lateral movements that help to correct deviations in the straight floating line.
An important role is played by the tail, which is kept horizontal and rigid and that acts as a rudder in changes of direction. The loin, which is slightly lengthened, favors the flexibility of the vertebral column and aids movement.



Every motion in the water is made with balance and efficiency. In comparison to movement on the ground, swimming is not only a question of covering a certain distance, but also of having the right push on the liquid mass for a productive propulsion with the least effort. Swimming is never frantic in this breed, but calm and rhythmical, in order to be able to last for extended periods of time. It is as though nature had taught these animals how to conserve energy. Thus, they can swim for a long time without loosing strength while pulling or retrieving. The double water repellent coat that isolates the body like a wetsuit also permits immersion in harsh climates and for long time spans without loosing body heat.
All of the above elements come together to give the Newfoundland the functional image of the water-rescue dog.

Gait faults

As in the Canadian standard, the FCI standard now also provides a description of gait faults:

- *Mincing*: movement with short steps in relation to incorrect limbs and angulations;

- S*huffling*: shuffling gait with little lifting of the feet;

- *Crabbing*: dog that walks like a crab: forward movement in which the spine is not facing in the direction of travel but deviates at an angle: one hind leg passes inside the front foot, the other hind leg outside the respective front foot;

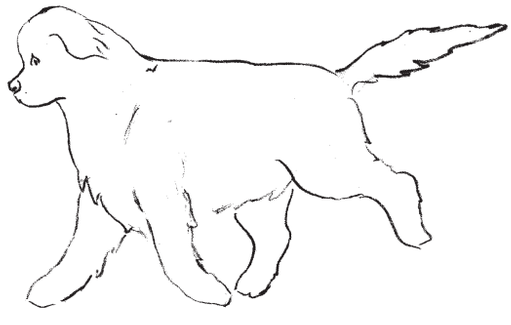
- *Too close moving*: narrow movement mostly linked to insufficient development of the diameters or in relation to plumb line defects;

- *Weawing o crossing over in front*: a swaying movement with the limbs crossing in front and swinging the elbows, in which the feet cross one in front of the other on an imaginary center line drawn under the body;

- *Toeing out and toeing in*: movement with the front feet turned outward or inward. It may involve only the feet or also the metacarpus;

- *Hackney*: A movement typical of Hackney horses that raise their legs more than they should. Although required in some breeds, this movement is abnormal for the Newfoundland and is related to straight shoulders and pasterns. It causes waste of energy due to the high raising and short steps, thus decreasing endurance;

- *Pacing*: movement with simultaneous forward movement of the front and rear legs on the same side.



Amble

Coat

The Standard

"HAIR *the Newfoundland has a water resistant double coat. The outer coat is moderately long and straight with no curls. A slight wave is allowed. The undercoat is soft and dense, denser in winter than in summer, but always found to some extent on the croup and chest. The hair on the head, muzzle and ears is short and fine. The front and rear legs are feathered. The tail is completely covered with long, dense hair, but does not form a flag. Trimming and scissoring are not encouraged.*

COLOUR *Black, white and black and brown.*
***Black:** The traditional colour is black. The colour has to be even as much as possible, but a slight tinge of sunburn is permissible. White markings on chest, toes and/or tip of tail are allowed.*

***White and black:** This variety is of historical significance for the breed. The preferred pattern for the markings is black head with, preferably, a white blaze extending onto the muzzle, black saddle with even markings and black croup and upper tail. The remaining parts are to be white and can show a minimum of ticking.*

***Brown:** The brown colour goes from chocolate to bronze. White markings on chest, toes and/or tip of tail are allowed. White and black dogs and brown dogs are to be shown in the same class as blacks".*

In the Newfoundland, the coat represents a very important complement to function; in harsh climates, particularly during swimming, it provides protection.
It is a closed double coat made up of two layers; the outer coat, which is of a semi-vitreous nature, and the undercoat, which is woolly, waterproof and dense and keeps the water away from the skin. Length and distribution vary depending on the region of the body. The head, the side of the ears and the front of the legs are covered by a short, thick layer which highlights the profiles. It becomes longer and gains an undercoat on the neck and body where it measures about 3 1/2 inches. On the central posterior of the ear, throat, chest, inferior profile of the body and the tail, it reaches a maximum length of 4 1/2 inches and forms thick fringes on the posterior side of the legs.

The hair is straight and thin; when brushed against its natural line, it tends to return naturally to its normal position. An open coat that is raised and stands up as in the Nordic dogs or one that is lacking a second layer, such as in the Labrador, is considered a defect. This is also true of hair that is too wavy or kinky and disturbs the soft and flowing curve of the body.

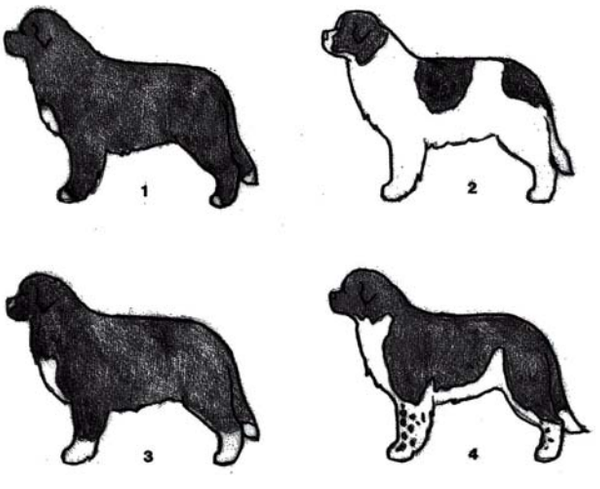
Colors of the coat

Three colors are admitted by the FCI standard:

1) Black: the dominant color is shinier where the hair is short. In other regions, the bottom layer makes it appear more opaque. The fringes, particularly if the dog is often in the water, may become reddish. On a black coat, a white marking on the chest, on the tip of the tail and on the toes is allowed.

2) Brown: the coat of a brown dog may be darker (chocolate) or lighter (bronze). As in the black, white marks at the chest, the tips of the tail and on the toes are allowed. In the brown dog, the skin is pink, as is the mucosa; the nose is pigmented brown.

3) White and black, or Landseer: the main color is white with localized black marks.
These marks are preferably in the following regions: correctly drawn saddle, black croup that extends to the tail, black head with a white line that goes up the forehead. The beauty and symmetry of the black marks is held in consideration; the black marks must be clear on the underlying white areas; spotting (or ticking), which ruins this effect, is considered a defect.
A subject presenting large, asymmetrical spots or a prevalence of black is considered mismarked. In the patched subjects, the nose must be black and the eyelids pigmented.



Markings:
1 - black with white chest blaze, tail tip and toes
2 - ideal markings
3 - black with excessive white (defect)
4 - white with black and excessive ticking

The problem of color

Color has always been, even in the past, one of the most contested and debated aspects of the breed. If black is recognized by all as the dominant color in the Newfoundland, the other colors have evoked varied opinions depending on the country and the time. Even today, for example, Canada does not accept brown, while the United States recognizes gray as well as the three other European colors.

As far as the white and black goes, this has been the subject of much confusion and will need a bit of history in order to become clearer. As we have seen previously, by the end of the 1700s many breeds had been crossed with the Newfoundland of the island, in order to obtain taller subjects. At that time, the colors were more varied: black, brown, black and white, black and brown, black with reddish hues and highlights, and gray.
In 1810, Teel stated that the breed had degenerated; and in 1840, Smith believed that the original dog was one with a black or bronze coat. In 1837, Sir Edwin Landseer created the famous painting, "A Distinguished Member of the Humane Society," which was to represent the famous dog Bob, winner of the Royal Humane Society's Gold Medal for having saved more than twenty-three people from the waters of the Thames. The model was Paul Pry, a white and black subject. In his paintings, Landseer always preferred this color, so much so that it took on his name.

In 1886, the first breed standard stated that the color was black or black with a white star. In honor of Landseer, a class for the not entirely black Newfoundlands was also created. Many years later, the debate still raged.

In 1932, the SIT newsletter published an interesting discussion that had appeared in "Our Dogs" between those who were for a mix of the two varieties and those who were against it. Colnaghi concluded the following: "The origin of the white in the Newfoundland is not certain. The white and black had a flat head, which was larger than the one in the black. The mixture of the two varieties sought to obtain, and has obtained, greater height in the blacks and created a better head in the white and black, including the dome-shaped cranium. The typical Newfoundland remains the one with a black coat. The white and black variety, or Landseer, is accepted. We believe that brown patches on the Landseer must not be admitted, and we further believe that there must no longer be a mixture of the two varieties".

Heim, Trager and Buckhard were of the same opinion. In the following years, the different opinions caused breeders from different countries to behave in different ways. As a result, the two varieties continued to be mixed in England, America, Canada, Scandinavia and Holland. In the rest of Europe, particularly in Germany and Switzerland where the breeding of the Landseer was common, the two colors were bred separately. The only exception was made by Otto Walterspiel, who imported the black Storm of Sparry from England, using it with female Landseers and obtaining a variety that was more similar to the black one.

Although pure breeding of the white and black variety had better markings and pureness of the coat as an advantage, it also provided an imprinting of atavistic genes that modified the subjects. These ancestral traits or types have a tendency to recur after disappearing for two or more generations (showing a sort of intermittent heredity). These subjects produced a head that was less marked, longer and narrower, chiseled, tending to divergence, a cone-shaped face with a protruding nose and reduced labial volume, larger eyes, at times lighter and protruding. They were taller than the black but with a weaker bone structure and less angled; the coat was shorter with less undercoat, and the temperament was more excitable.

This variation in type was nothing but a genetic trail from the Landseer's origins, a return toward the basic ancestors; and it created an evident differentiation not only among the white and blacks and blacks, but also in the purebreds, and those crossed with the blacks.

In 1960, the FCI decided to separate the two varieties as the black or brown Newfoundland and the white and black Landseer. This decision, while favored by both Germany and Switzerland, was opposed by the Nordic countries and Holland. In the end, a solution was found: the European Landseer would become an independent breed called the ECT Landseer (European Continental Type), with a different number in the classification of the canine breeds and with its own standard made by Germany; the Newfoundland breed would admit the white and black, or Landseer, but these dogs would have to be identical in every way to the blacks.

The separation, in truth, was only partially respected. England, the United States and Canada, which did not belong to the FCI, continued on to import ECT Landseers (European Continental Type) from Europe for coat selection purposes, later exporting Landseer Newfoundlands. Further confusion was created because some of these subjects were of the correct type, while others were of the ECT type. Atavistic characteristics also appeared in some black subjects, offspring of the Landseer.

In 1978, the FCI assembly, held in Mexico and proposed by Germany, excluded the white and black coat from the Newfoundland breed, but in 1981, in Dortmund, this color was readmitted as a result of the intervention of Holland and Finland. Additional requests made by Switzerland to once again exclude this variety were not accepted.

Today's FCI classification is comprehensive; its wording is as follows, under the "Mountain Dog" type:

50) Newfoundland (CDN-GB): black-bronze-white with black marks (Anglo-American Landseer)
226) Landseer European Continental Type (D-CH)

It is quite natural to wonder why such conflicts arose. When trying to understand the situation, one must consider the breeders of the blacks on one side, wanting to keep their dogs pure and wanting to avoid surprises in color and features. Basically, the black breeders find no advantage in breeding with the white and black; the larger size, used as a pretext, can be obtained by selection and, in any case, should not be sought at the risk of type and harmony. On the other side, we have breeders of the white and black, who cannot avoid breeding their dogs with the blacks periodically in order to maintain the right type and correct bone structure.

With a bit of good will, a solution may be found for everyone. First of all, the white and black and the black subjects presenting the ECT type must be penalized. This, which appears obvious, is not easy to achieve. One owning a dog with a pedigree believes that it is a right to breed the dog as one wishes, and then register the product of that breeding. Too often however, the choice is random, with significant negative effects from the breeding between colors.

The breeding of the white and black Newfoundland requires much attention so as not to break the balance between coat and type. The total freedom of breeding of the two varieties has brought about indiscriminate crossings.
Today in Italy, we often find ourselves looking at those subjects that are defined as mismarked and considered defective: completely black dogs with white marks in regions not specified by the standard, metacarpals and forearms entirely white, entirely white chest, throat and stomach, white collar and white face, and so forth.

This type of reproduction is the cause of an aimless regression to a specific scope and selection. It would be sufficient to use black offspring from a black and white parent, always carrying the Landseer gene and, potentially, of other features linked to it, only in the selection of this specific color. The black could thus maintain its pureness of type, and the white and black could draw from it when needed.
Furthermore, research today is made easier by genetic tests that have entered into common use: it is now possible to recognize whether a "mismarked" dog can be classified as black or black and white.

Size and Weight

The Standard

"The average height at the withers is:
- For adult males: 71 cm. (28 inches)
- For adult bitches: 66 cm. (26 inches)
The average weight is approximately 68 Kg for males and approximately 54 Kg for bitches.
Large size is desirable, but is not to be favoured over symmetry, general soundness, power of the structure and correct gait."

Size and weight have also often been a topic of discussion by Newfoundland lovers of all times.
Already in the 1800s, experts like Mr Mansfield declared themselves against the competition to obtain ever taller subjects. The truth is, in past centuries the dogs of the island had been crossed with other breeds in order to achieve spectacular height, introducing different new somatic characteristics and colours at the same time.

Personalities such as Heim, Buchner and Buckhard later stated the same things; Prof. Heim wrote: *"Breeding with the primary idea of obtaining height is dangerous because one risks destroying the type and creating lymphatic dogs."*
Differing points of view were presented by Doctor Gortlet, Landseer breeder, and of Mr. Brown, who stated: *"A large dog is better able to function in the water, so much so that there is no reason why we should not give the greatest importance to size!."* Everyone agreed, however, that it was important to keep symmetry and proportion. More recently, M. Booth Chern wrote: *"Size should be the average size indicated by the Standard or slightly larger, but it must never interfere with proportion. Size without balance and solidity has no value."*

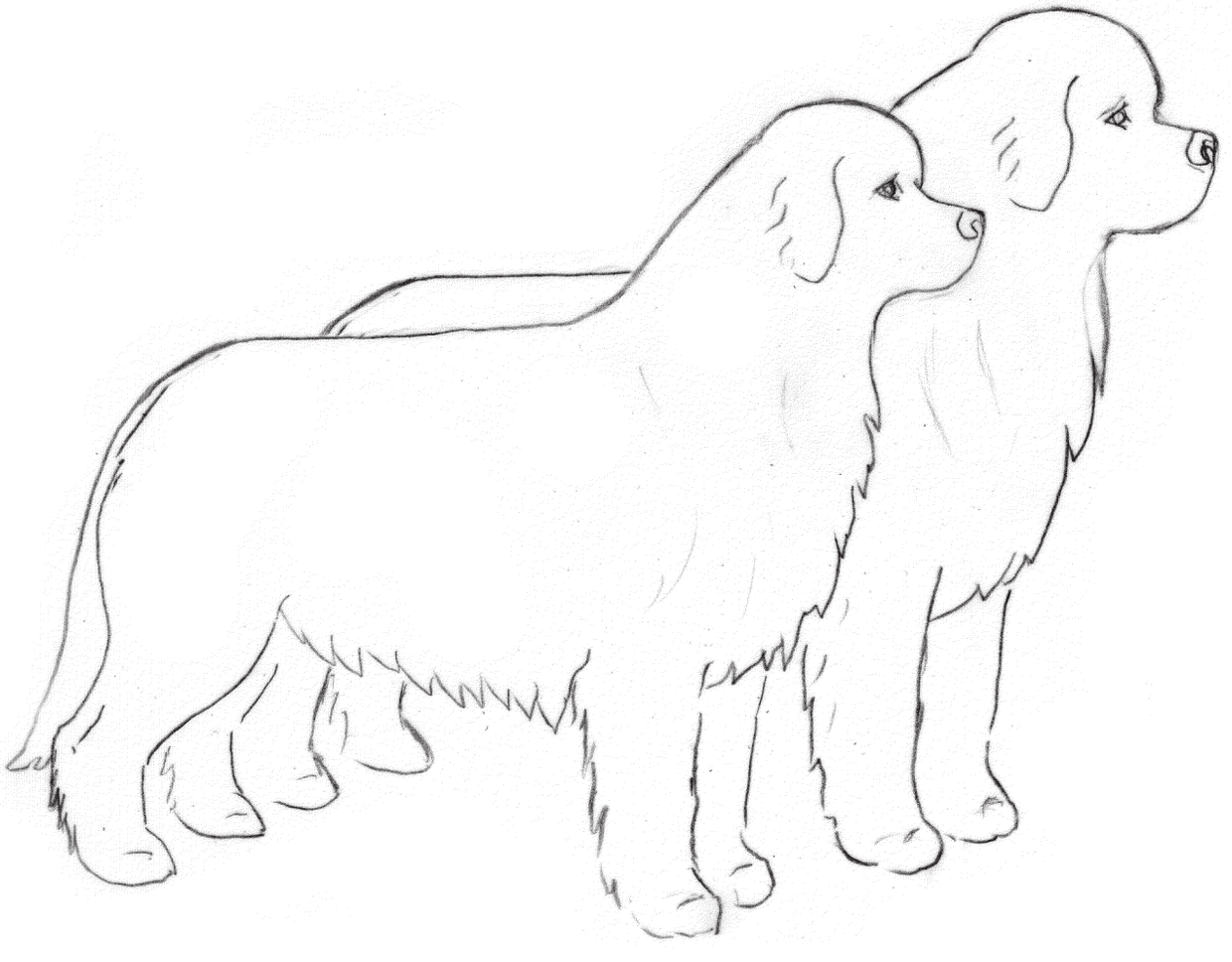
The values stated by the Standard with an average height of 71 cm (28 inches) in the male with a weight of approximately 68 kg (150 pounds) and 66 cm (26 inches) in the female with a weight of 54 kg (120 pounds), appear in fact adequate for a correct relationship between mass and height. Naturally, a certain deviation from the mean is acceptable, but height above 78 to 80 (30 to 32 inches) rarely corresponds with correct proportion. These dogs are unbalanced and present the following characteristics: long legs, proportionately reduced transverse diameters, lengthened facial profiles. In the same way, subjects that are below this average do not possess the characteristics that categorize the Newfoundland as a large molossus. Once again, exaggeration of certain characteristics does not go along with **the balance that must always be sought in the Newfoundland breed.**
Furthermore, measurements must be precise and truthful. While weighing a dog is relatively easy, and all that is required is to observe the needle of the scale, the measurement of height provides the possibility of making many mistakes that require maximum attention.

The subject to be measured must be placed on a flat plane in a relaxed, standing position. The measuring stick must be perfectly perpendicular to the ground, and the transversal bar must be lowered to the highest tip of the withers, slightly compressing the hair. Many values will be scaled down to the advantage of objectivity and common sense.

Sexual Dimorphism

It is of the utmost importance to fully comprehend the meaning of this term because it sometimes happens that characteristics that have nothing to do with femininity and masculinity are confused with those that do.

Sexual dimorphism is the physical or behavioral differences associated with the sex; males and females of the same species are different in appearance and behavior. The essential traits must remain identical in the male and in the female, although every good subject shows sexual characteristics in a secondary manner.
In the male, the head appears proportionately larger than in the female with a further development of the frontals and the brow arches. He presents a powerful head, larger nose, neck and muscles and very developed bone structure. In the female, everything appears more rounded and fluid without ever lacking substance. A narrow face, a poorly defined stop, along face or poor muscular and skeletal systems must never be confused with femininity. The female Newfoundland has all of the characteristics of the breed well in evidence, only they are a bit less pronounced and somewhat sweetened because of the natural sexual dimorphism.



Summary of faults reported in the Standard:

The Standard

FAULTS

Any departure from the foregoing points should be considered a fault and the seriousness with which the fault should be regarded should be in exact proportion to its degree and its effect upon the health and welfare of the dog.

- *General appearance: legginess, lack of substance*
- *General bone structure: sluggish appearance, fine bone*
- *Character: aggressiveness, shyness*
- *Head: narrow*
- *Muzzle: snipey or long*
- *Flews: pronounced*
- *Eyes: round, protruding, yellow eyes, showing pronounced haw*
- *Back: roached, slack or swayed back*
- *Tail: short, long, king tail, curled tip*
- *Forequarters: down in pastern, splayed toes, toeing in or out, lack of webbing between toes*
- *Hindquarters: straight stifles, cowhocks, barrel legs, pigeon toes*
- *Gait/Movement: mincing, shuffling, crabbing, too close moving, weaving, crossing over in front, toeing-out or distinctly toeing-in in front, hackney action, pacing*
- *Hair: completely open coat. Lack of undercoat.*

DISQUALIFYING FAULTS

- *Aggressive or overly shy dogs*
- *Any dog clearly showing physical or behavioural abnormalities*
- *Overshot or undershot bite, wry mouth*
- *Short and flat coat*
- *Markings of any other colour than white on a black or brown dog.*

N.B.

The male subject must have normal testicles, well lowered into the scrotum.

Remarks about animal health

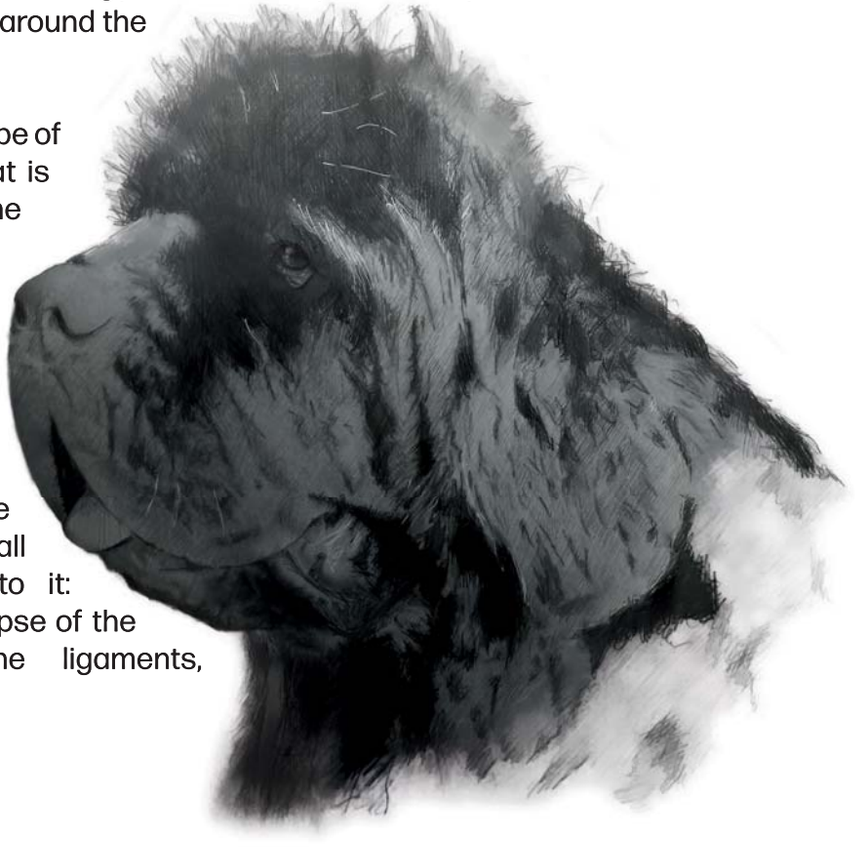
To conclude, let us return to what was expressed at the beginning regarding the concept of animal health: **“Never can the result of a selection ignore this principle”.**

A healthy, balanced dog, with a clean muzzle and serene eyes, is a pleasant companion to keep by your side. Unfortunately, this is not always the case. As happens in other fields, those who are not satisfied with a wise natural selection intervene, according to their own tastes, thus creating trends that are the complete opposite of what it should be. Thus, following the rule of “the more, the better”, in some cases we have come to create, witin the Newfoundland breed, exasperated subjects that cannot even be defined as hypertypes, because the actual Type is no longer there.

Furthermore, this situation does not only affects the morpho-functional aspect of the breed but also creates serious problems in the health of the dogs. In these lymphatic subjects, the skin, instead of perfectly covering the underlying structures, has become thick and poorly supported by loose connective tissue. This is first of all evident on the head: where the skin should reveal the bony and muscular volumes, wrinkles and folds appear. The lips become heavy, almost fleshy. The muzzle appears higher than it should be for the length of the lips, the labial commissure descends to the neck. The nose is sometimes smaller, closed and less mobile.

The biggest problem is then that of the eyes, sometimes with visible conjunctiva but more often affected by entropion. The skin, not well stretched in the suborbital region, folds towards the inside of the eye, causing constant suffering that can, over time, lead to serious keratitis and even loss of vision. Despite the various eye drops instilled before entering the ring, this pathology is revealed by a moist eye, a little half-closed, winking or even with hair loss around the lower eyelid.

On the rest of the body, this type of skin behaves like a dress that is too large, causing the formation of dewlap and folds with a greater tendency to dermatitis. This is as far as the external appearance is concerned but worse problems arise inside, where the relaxation of the connective tissue can affect all the structures connected to it: laxity of the soft palate, collapse of the trachea, weakness of the ligaments, stomach torsion...



Let us now forget theory and try to imagine a scene that occurred many years ago.

It is the story of a storm, like many others, and of the everlasting fight of man against the sea. But this time, in addition to man, there is a large dog, not quite like the ones that we know, shiny and well kept, but very similar: strong, courageous and with the same wonderful instinct.
We see him as he jumps from one rock to another, searching for a point from which he can dive. The solid and compact foot, the muscular shoulders, and the wide chest help to prevent him from slipping. The dilated nostrils smell and analyze through the air that which is happening nearby. Above the roar of the waves, beyond the fog and the salty air, he senses the presence of men in danger.

The sailboat has dropped its anchors, but it is in danger of wrecking itself on the rocks. On the deck are a handful of frightened men; on land, another handful of men watch helplessly. The dog barks insistently many times. He shows his desire to dive. And here an idea flashes.
A word is enough, to which a spark responds in his intelligent eyes. The jaws close tightly around a rope. He is ready to dive: not a high jump for which lightness and height are necessary but a long jump that requires maximum power. If he were to land too close to the shore, he would not have time to begin swimming: the waves would throw him against the rocks. So, the dog stands on his hind legs, extends his neck to the utmost. The massive head is pushed forward; powerful is the push from behind that is passed on from the hocks to the hind and the back to project his sixty kilograms forward.

Soon, he emerges from the waves with the rope still tightly clenched in his mouth. The wide masseters and the well developed temporals allow for a long-lasting hold, combined naturally with an endless tenacity typical of the breed. Rhythmically, without tiring himself, like an expert mountain climber who begins the climb, he starts to brave the seas. The rigid tail is used for direction; the corrections in route are made by the legs and arms. But the fight is still long and arduous. Only well-opened airways, capable lungs and an excellent heart provide the large muscles with enough oxygen under stress.

Finally, the rope is handed over. It is salvation, a bridge between land and sea that would not otherwise be possible. For the dog, however, it is not the end yet. He now has to go back to land and patiently seek out a low rock, a small ledge, the right moment to regain the ground. It will take courage, timing and agility to escape the undertow without being overwhelmed.

The sailors, thankful for being rescued, will bring a Newfoundland along on the next trip, and in case of need, they will send the faithful helper to land with rope. But only dogs with certain requirements will pass the test and it will be up to them to perpetuate these traits alive through time.
This is an old story. Today's experts have another very important task to fulfill: that of always keeping function in mind. Then it will be less easy for man to modify, for the sake of a purely aesthetic taste, which is always subjective, those values that in nature only function selects.