

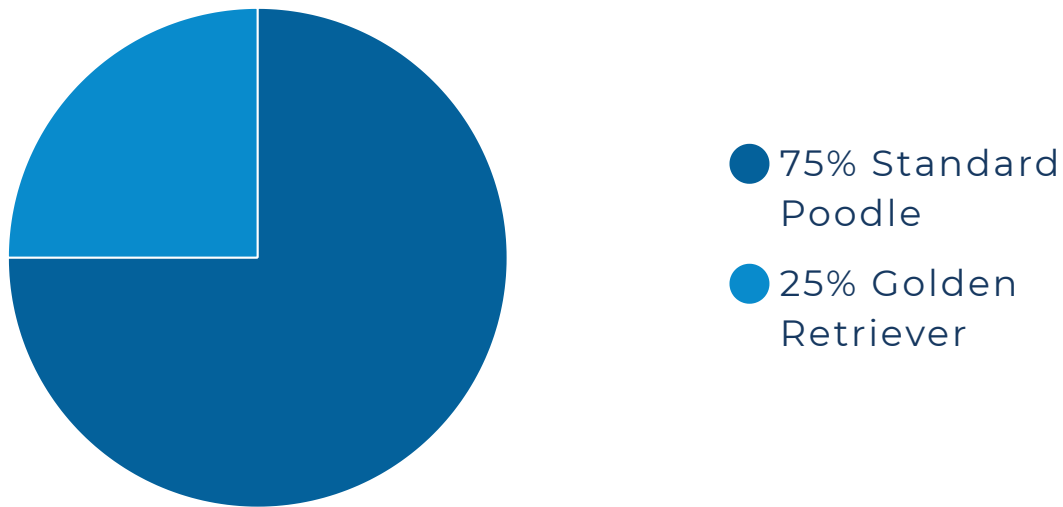
DISCOVER ALL

# ABOUT MOLLY

The results are in! Let's take a look at what the DNA told us about Molly's ancestry...

© 2019 Mars, Incorporated and its Affiliates.

# MOLLY'S BREED BY PERCENTAGE



Exciting news, the results are in! Here's what makes Molly so unique. Using the data generated from Molly's DNA, our sophisticated computer algorithm performed over 17 million calculations! What you see here is Molly's ancestry by percentage.

# STANDARD POODLE

## SMART AND PLACID DOGS.

- Intelligent, calm, and usually friendly dogs.
- Some can have a high amount of energy.
- Have a sensitive nature and respond well to motivational tools such as treats or favorite toys in a reward-based approach to training.
- Generally good family dogs.

▶ **Height**  
**Over 15 in**

▶ **Weight (show)**  
**44 - 65 lb**

▶ **Weight (pet)**  
**42 - 69 lb**



## DID YOU KNOW?

The fact that Poodles have been featured in royal artwork since the 1500s is probably part of the reason many think they're a French breed. But they're actually not. Instead, these smart and placid dogs are shrouded in mystery when it comes to their origin. Some experts say they originated in Central Europe or Russia, while others cite Spain or Portugal. What is not disputed, however, was their modern traits were developed in France. Although they're thought of as ornamental lap dogs, they are technically gun dogs with an excellent reputation for bird hunting and water retrieval. Their name has its roots in an old German word meaning 'to splash about' – a reference to their fondness for water. There's no question our feelings for these amazing dogs run pretty deep.

# GOLDEN RETRIEVER

## WHO DOESN'T LOVE THESE INTELLIGENT, KIND AND LOYAL DOGS?

- Happy-go-lucky, calm, or easy-going dogs, although some can be energetic or nervous.
- Usually friendly and are generally good family dogs.
- Enjoys sports such as hunting, tracking, agility and retrieving items such as floating toys that use the breed's swimming ability.
- Quite food motivated, which may make it easier to teach the Golden Retriever to drop retrieved items not intended for play.

### ▶ Height

**20 - 24 in**

### ▶ Weight (show)

**55 - 70 lb**

### ▶ Weight (pet)

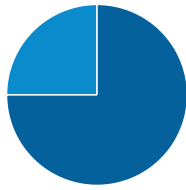
**46 - 80 lb**



## DID YOU KNOW?

Who doesn't love these intelligent, kind and loyal dogs? They're originally from 19th century Scotland, where they were bred as hunting dogs, retrieving game from land and water. Not many people know that one Sir Dudley Majoribanks, Lord of Tweedmouth, spent twenty years secretly developing the breed. They say he began with a yellow dog from Brighton and a Tweedwater Spaniel (now extinct). Later, he introduced Labrador Retrievers, Newfoundlands, Red Setters and Bloodhounds into the mix. Although first called 'Golden Flat Coats', the breed was eventually introduced to America, where they became known as Golden Retrievers. And just about everyone's favorite dog.

# MOLLY'S FAMILY TREE



75% Standard Poodle  
25% Golden Retriever

## PARENTS

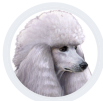


Standard Poodle  
Golden Retriever



Standard Poodle  
Golden Retriever

## GRANDPARENTS



Standard Poodle



Standard Poodle  
Golden Retriever

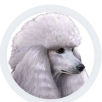


Standard Poodle



Standard Poodle  
Golden Retriever

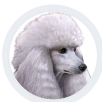
## GREAT GRANDPARENTS



Standard Poodle



Standard Poodle



Standard Poodle



Golden Retriever



Standard Poodle



Standard Poodle



Standard Poodle



Golden Retriever

# MOLLY'S HEALTH RESULTS

SAMPLE ID: 00BAN\_0604MARS00047

We have tested Molly's DNA for more than 150 disease-causing mutations. Below is a summary of our findings. For more detailed information on each of these diseases, please log into your account and review your comprehensive health results.



## AT RISK - 0

Being "At Risk" means Molly may show or develop signs of one of the following genetic diseases. Please be sure to read the condition information carefully and share these results with your veterinarian.



## CARRIER - 0

Carrier status is where a dog has inherited one copy of a disease-causing mutation, when two copies are usually needed for disease signs to occur. The good news is that carriers are unlikely to show disease signs, but there may be a slight increase in risk of disease for some conditions. Please be sure to read the condition information carefully and share these results with your veterinarian.



## CLEAR - 152

Molly inherited zero copies of these disease mutations. Be sure to use our share feature to let your veterinarian know about Molly's results. For some of the conditions there may still be undiscovered mutations and/or environmental factors that could lead to similar disease signs. These clear results will help narrow down a future diagnosis if Molly ever gets sick.

# MOLLY'S TRAITS

SAMPLE ID: 00BAN\_0604MARS00047

## Furnishings

Molly carries the gene for 'furnishings', which means they are likely to have a fuzzy beard and eyebrows. This trait is commonly associated with terriers, but is carried by many other breeds as well, including the Poodle. It may also have come from many generations back in their ancestry.

## Coat Color Subtypes

**Genotype: at/a m/m h/h S/sp**

Molly carries one copy of the gene for white spotting so might have a fair bit of white in their coat. (Did you know white is not a color but a lack of pigment which acts to cover up a dog's natural base color?)

## Coat Color Main Possibilities

**Genotype: at/a e/e KB/ky,kbr/ky I/wt**

Molly appears to be a yellow or tan color. Dogs with this result can actually show colors from white all the way to deep red. (Did you know because your dog has this genotype, they cannot make black pigment in their coats, so won't have even a single black hair?)

## Leg Length

**Genotype: DD**

Molly's legs should be relatively long in length, based on this marker (though there can be other genes that affect leg length). Did you know different dogs can have different leg lengths even if they are the same breed?

## Ear Carriage

**Genotype: CC**

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Molly probably has 'drop' or floppy ears. This type of ear is dominant, needing only one copy of the gene to show it. That's why it's so common in mixed breed dogs. Common breeds with drop ears include hounds, Labrador, Poodle and spaniels.

## Furnishings

Molly carries the gene for 'furnishings', which means they are likely to have a fuzzy beard and eyebrows. This trait is commonly associated with terriers, but is carried by many other breeds as well, including the Poodle. It may also have come from many generations back in their ancestry.

## Coat Color Subtypes

**Genotype: at/a m/m h/h S/sp**

Molly carries one copy of the gene for white spotting so might have a fair bit of white in their coat. (Did you know white is not a color but a lack of pigment which acts to cover up a dog's natural base color?)

## Coat Color Main Possibilities

**Genotype: at/a e/e KB/ky,kbr/ky I/wt**

Molly appears to be a yellow or tan color. Dogs with this result can actually show colors from white all the way to deep red. (Did you know because your dog has this genotype, they cannot make black pigment in their coats, so won't have even a single black hair?)

## Leg Length

**Genotype: DD**

Molly's legs should be relatively long in length, based on this marker (though there can be other genes that affect leg length). Did you know different dogs can have different leg lengths even if they are the same breed?

# MOLLY'S TRAITS CONTINUED

SAMPLE ID: 00BAN\_0604MARS00047

**Leg Length**  
**Genotype: DD**

Molly's legs should be relatively long in length, based on this marker (though there can be other genes that affect leg length). Did you know different dogs can have different leg lengths even if they are the same breed?

---

**Ear Carriage**  
**Genotype: CC**

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Molly probably has 'drop' or floppy ears. This type of ear is dominant, needing only one copy of the gene to show it. That's why it's so common in mixed breed dogs. Common breeds with drop ears include hounds, Labrador, Poodle and spaniels.

---

**Tail Length**  
**Genotype: CC**

Molly likely was born with a long tail - although the exact length can vary from dog to dog. Long tails are sometimes known as 'coffee table clearers'. (If you've ever seen a long-tailed dog get excited near one, you'll know exactly why.)

---

**Base Pigment Color**  
**Genotype: B/B**

Molly carries the gene for the 'expression' of black pigment. This means that even though their overall coat color may not be black, they are still able to make black pigment. They will also likely have black around their eyes, a black nose, and may even have black pads on their feet.

---

**Coat Length and Type**  
**Genotype: TT TT**

Molly's coat is probably wiry and curly. Did you know this is because they show two copies of the gene for curl? If they'd shown one, their coat would be long and wavy.

---

**Tail Length**  
**Genotype: CC**

Molly likely was born with a long tail - although the exact length can vary from dog to dog. Long tails are sometimes known as 'coffee table clearers'. (If you've ever seen a long-tailed dog get excited near one, you'll know exactly why.)

---

**Base Pigment Color**  
**Genotype: B/B**

Molly carries the gene for the 'expression' of black pigment. This means that even though their overall coat color may not be black, they are still able to make black pigment. They will also likely have black around their eyes, a black nose, and may even have black pads on their feet.

---

**Coat Length and Type**  
**Genotype: TT TT**

Molly's coat is probably wiry and curly. Did you know this is because they show two copies of the gene for curl? If they'd shown one, their coat would be long and wavy.



# IDEAL WEIGHT

SAMPLE ID: 00BAN\_0604MARS00047

Based on our findings, we've calculated that Molly's ideal, adult weight should be:

**40 lbs - 68 lbs**

We've factored everything we know about Molly in predicting a healthy, adult weight.

However environmental factors such as the nutrition of Molly's mom during pregnancy and nursing, Molly's nutrition during critical growth months, illness/parasites/ticks/fleas, and exercise levels can affect the actual weight of Molly.

## CALCULATING WEIGHT

Our weight-predictive algorithm uses a combination of the following to calculate Molly's ideal, adult weight:

- The published weight ranges of more than 200 purebred dogs.
- The observed weights of purebred dogs, each with an ideal Body Condition Score, from the Banfield® Pet Hospital database.
- Breeds the WISDOM PANEL™ test analysis has identified that reflect a dog's true heritage and genetic complexity.
- A genetic algorithm based on mixed-breed data that calculates the contribution of each set of chromosomal genetic markers.

## ENVIRONMENTAL EFFECTS ON WEIGHT

A dog's early life is very important in determining how they will grow and develop. They can fail to reach their ideal weight for a number of reasons, including the diet of their mother during pregnancy and nursing (as well as their own diet as puppies).

Illness and disease can play a part too, as can having parasites like roundworms or fleas and ticks. For dogs who are adopted after they are fully-grown, it may be harder to find the historical background on these factors.

Maintaining a healthy weight is a key factor in Molly having a long and healthy life.

# WISDOM<sup>TM</sup> PANEL



## STATEMENT OF AUTHENTICATION

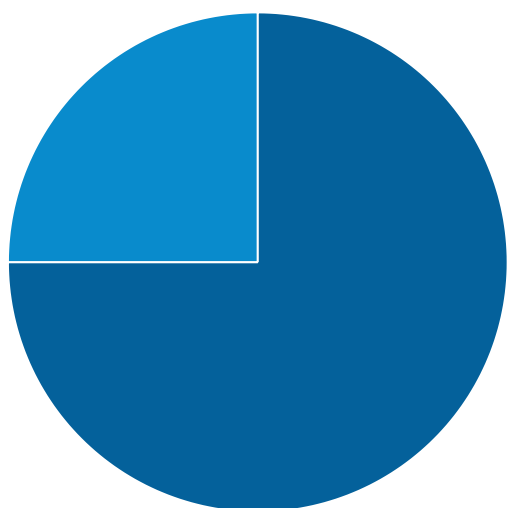
Owner's Name: **Zoe Cordova**

Dog's Name: **Molly**

Sample Id: **00BAN\_0604MARS00047**

Date: **August 19, 2019**

This certifies the authenticity of Molly's canine genetic background as determined, following the careful analysis of more than 1800 genetic markers, by the WISDOM PANEL<sup>TM</sup> Canine DNA Test. The purebred breed signature matches included in the analysis are those that were detected in the last three generations of Molly's ancestry using the Wisdom Health proprietary breed detection algorithm.



● 75% Standard Poodle

● 25% Golden Retriever