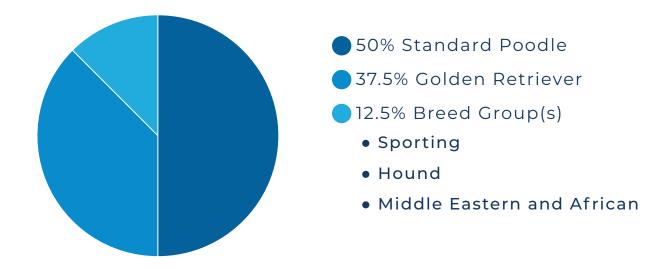
DISCOVER ALL ABOUT OLLIE

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

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OLLIE'S BREED BY PERCENTAGE



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



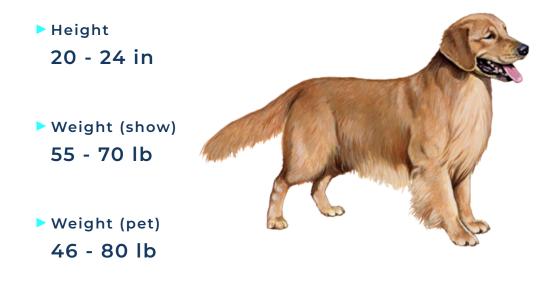
DID YOU KNOW?

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.



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.

BREED GROUPS OLLIE IS MOST LIKELY RELATED TO

We tested Ollie's ancestry for specific pure breeds, going back three generations (or to the greatgrandparents). Beyond this, today's technology can only identify down to the genetic "group" level (sporting, toy, guard, etc.). We know the breeds found in these groups and that Ollie may share genetic similarities with many of them. We've arranged these in order, with the most likely starting at the top. The breeds displayed are examples of breeds in each specific group. The full list for each can be found on the breeds we analyzed, click on the link below.

SPORTING GROUP

The sporting group breeds are incredibly diverse in personality and appearance, but can be characterized as very sturdy. They were developed to work closely with people and in general have a very responsive nature and high intelligence.

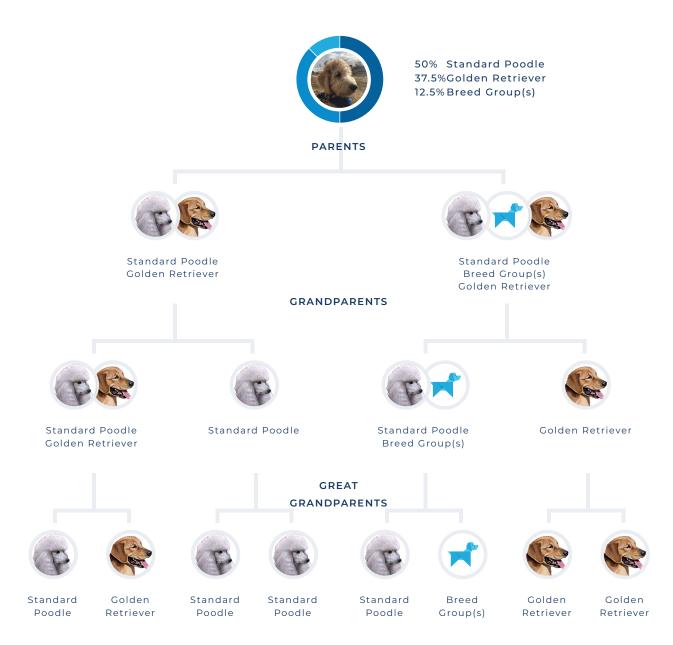
HOUND GROUP

The most common ancestral trait of this group is being used for hunting. Some use acute powers of scent to follow a trail while others demonstrate the gift of stamina as they run down a quarry. Beyond these two common traits, however, generalizations about hounds are hard to come by as the group is comprised of a very diverse lot of breeds.

MIDDLE EASTERN AND AFRICAN GROUP

While this ancient group shares many of the characteristics of the Hound Group, their origins, as the name would suggest, are concentrated in Africa and the Middle East unlike the hound group that has no true geographic center.

OLLIE'S FAMILY TREE



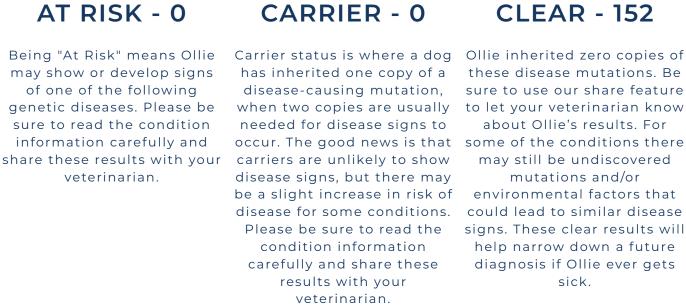
OLLIE'S HEALTH RESULTS

SAMPLE ID: T227912

We have tested Ollie'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.



Being "At Risk" means Ollie may show or develop signs of one of the following genetic diseases. Please be sure to read the condition information carefully and veterinarian.





these disease mutations. Be sure to use our share feature to let your veterinarian know about Ollie's results. For 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 Ollie ever gets sick.

OLLIE'S TRAITS

SAMPLE ID: T227912

Coat Color Main Possibilities Genotype: aw/a e/e KB/ky,kbr/ky l/wt	Ollie 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	Ollie'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?
Coat Color Subtypes Genotype: aw/a m/ m h/h S/sp	Ollie 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?)
Ear Carriage Genotype: CC	A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Ollie 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.
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Tail Length Genotype: CC	Ollie 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.)

OLLIE'S TRAITS CONTINUED

SAMPLE ID: T227912

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Base Pigment Color Genotype: B/B	Ollie 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	Ollie'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.
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IDEAL WEIGHT

SAMPLE ID: T227912

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

46 lbs - 78 lbs

We've factored everything we know about Ollie in predicting a healthy, adult weight. However environmental factors such as the nutrition of Ollie's mom during pregnancy and nursing, Ollie's nutrition during critical growth months, illness/parasites/ticks/fleas, and exercise levels can affect the actual weight of Ollie.

CALCULATING WEIGHT

Our weight-predictive algorithm uses a combination of the following to calculate Ollie'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 Ollie having a long and healthy life.





STATEMENT OF AUTHENTICATION

Owner's Name: **Ruby Papp** Dog's Name: **Ollie** Sample Id: **T227912** Date: **August 1, 2019**

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



50% Standard Poodle

37.5% Golden Retriever

12.5% Breed Group(s)