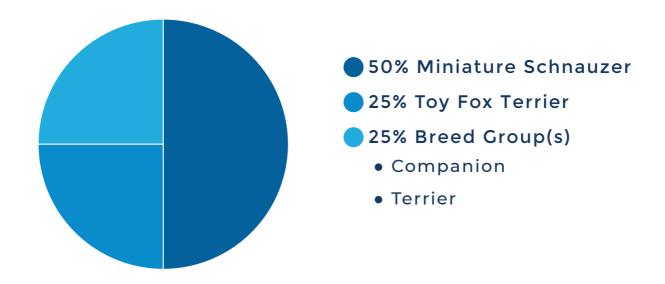


The results are in! Let's take a look at what the DNA told us about Jazzy's ancestry...

© 2019 Mars, Incorporated and its Affiliates.

## JAZZY'S BREED BY PERCENTAGE



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

## MINIATURE SCHNAUZER

#### SPIRITED AND INTELLIGENT.

- Intelligent, active, and alert dogs. Good watch dogs.
- Quick learners with reward-based training and as such enjoy dog sports such as agility, tracking, earthdog trials, rally and competitive obedience.
- May engage in chasing and barking at wildlife and can be tenacious or difficult to disengage from an activity that has its attention.
- Tend to be suspicious of strangers; may require careful socialization to prevent or reduce defensive aggressive tendencies.
  - ► Height 13 - 14 in
  - Weight (show)9 16 lb
  - Weight (pet)9 19 lb



#### DID YOU KNOW?

Spirited and intelligent, Miniature Schnauzers were bred primarily to hunt rats and other vermin but could also guard flocks (as long as they were small flocks). They were created by crossbreeding the Standard Schnauzer with smaller breeds like the Affenpinscher, Miniature Pinscher and the Poodle. Though they arguably first appeared on the scene in the mid-19th century, it wasn't until 1899 that the Miniature Schnauzer was considered its own distinct breed. They were brought to the United States in 1925 and recognized by the American Kennel Club a year later, in 1926. Following World War II, the Miniature Schnauzer's popularity soared and, at one time, they were the third most popular breed in America. For such a small dog, they continue to make a big impression today.

## **TOY FOX TERRIER**

#### A DESCENDANT OF THE SMOOTH FOX TERRIER.

- Agile, energetic, intelligent and playful dogs.
- Toy Fox Terriers seem to enjoy dog sports such as agility, flyball, and tracking.
- Toy Fox Terriers learn well with reward-based training using treats or favorite toys.
- Is an excellent watch dog due to its tendency to bark to defend itself.
  - Height9 11 in
  - Weight (show)4.5 6.5 lb
  - Weight (pet)3 10 lb



#### DID YOU KNOW?

The Toy Fox Terrier is a descendant of the Smooth Fox Terrier. While the latter were bred partly to catch foxes (hence the name), the Toy Fox Terrier was much more suited to smaller quarry like squirrels. These energetic little dogs are across the pond from their larger relative – as they were developed in the United States during the 1930s. Quite a lot of breeds are thought to have gone into making them – including English Toy Terriers, Chihuahuas, Italian Greyhounds and Manchester Terriers. Toy Fox Terriers were first recognized by the United Kennel Club in 1936. They're also known as 'American Toy Terriers' and 'Amertoys'. Not to mention all the other cute names we call them.

# BREED GROUPS JAZZY IS MOST LIKELY RELATED TO

We tested Jazzy's ancestry for specific pure breeds, going back three generations (or to the great-grandparents). 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 Jazzy 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.

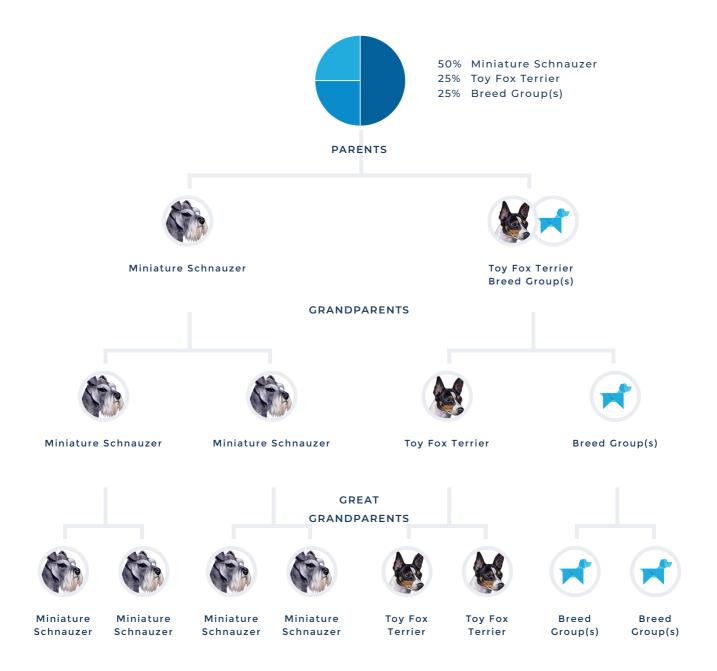
#### **COMPANION GROUP**

This group consists of dogs typically bred for the specific purpose of human companionship, and many are popular pets because of their gentle nature. They became more common as the concept and luxury of dogs as pets prevailed.

#### **TERRIER GROUP**

The Terrier Group ancestors were bred to hunt and kill vermin. They are often characterized as feisty and energetic dogs whose sizes range from fairly small to much larger.

# **JAZZY'S FAMILY TREE**



## JAZZY'S HEALTH RESULTS

**SAMPLE ID: T204637** 

We have tested Jazzy's DNA for the following important genetic health conditions. The results can be seen below. For more detailed information on each of these diseases, please log into your account and review your comprehensive health results.

MULTIDRUG SENSITIVITY (MDR1)



**CLEAR** 

Jazzy has no copies of the MDR1 mutation and should not be affected by the disorder due to this genetic cause.

EXERCISE-INDUCED COLLAPSE (EIC)



**CLEAR** 

Jazzy has no copies of the EIC mutation and should not be affected by the disorder due to this genetic cause.

# **JAZZY'S TRAITS**

**SAMPLE ID: T204637** 

Furnishings	Jazzy 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 Main Possibilities Genotype: at/at E m/E ky/ky I/wt	Jazzy probably has a dark-colored, saddle-shaped pattern on their back, which is common in breeds like the German Shepherd and Beagle. They'll likely also have a dark facial 'mask'. Did you know some dogs with this trait are born 'black-and-tan' but that the dark hairs fade until only the saddle pattern remains?
Coat Color Subtypes Genotype: at/at m/ m h/h S/sp	Jazzy 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?)
Leg Length Genotype: DD	Jazzy'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: TT	A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Jazzy probably has perk or upright ears. Did you know this type of ear is recessive (which means you need a copy from each parent to show it)? Common breeds with upright ears include German Shepherd, Chihuahua and Husky.
Furnishings	Jazzy 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 Main Possibilities Genotype: at/at E m/E ky/ky I/wt	Jazzy probably has a dark-colored, saddle-shaped pattern on their back, which is common in breeds like the German Shepherd and Beagle. They'll likely also have a dark facial 'mask'. Did you know some dogs with this trait are born 'black-and-tan' but that the dark hairs fade until only the saddle pattern remains?
Coat Color Subtypes Genotype: at/at m/ m h/h S/sp	Jazzy 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?)
Leg Length Genotype: DD	Jazzy'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?

# JAZZY'S TRAITS CONTINUED

**SAMPLE ID: T204637** 

Leg Length Genotype: DD	Jazzy'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: TT	A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Jazzy probably has perk or upright ears. Did you know this type of ear is recessive (which means you need a copy from each parent to show it)? Common breeds with upright ears include German Shepherd, Chihuahua and Husky.
Tail Length Genotype: CC	Jazzy 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	Jazzy 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: GT CC	Jazzy's coat is probably on the short side. The exact length of a dog's coat is down to several factors so it can vary. Did you know some genes can even change how a short coat looks, including adding 'feathering', which results in longer hairs behind the ears, under the belly, and behind the legs?
Tail Length Genotype: CC	Jazzy 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	Jazzy 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: GT CC	Jazzy's coat is probably on the short side. The exact length of a dog's coat is down to several factors so it can vary. Did you know some genes can even change how a short coat looks, including adding 'feathering', which results in longer hairs behind the ears, under the belly, and behind the legs?

### **IDEAL WEIGHT**

**SAMPLE ID: T204637** 

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

21 lbs - 37 lbs

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

#### CALCULATING WEIGHT

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





#### STATEMENT OF AUTHENTICATION

Owner's Name: Rod Allrich

Dog's Name: Jazzy

**Sample Id: T204637** 

Date: November 18, 2019

This certifies the authenticity of Jazzy'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 Jazzy's ancestry using the Wisdom Health proprietary breed detection algorithm.

