

Report for:  
Cooper

Normal  
Potassium



High Sulfur



Low Manganese



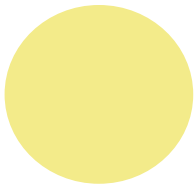


## Nutritional Blueprint Test

Cooper



## Executive Summary



OK

Molly received a yellow dot because several of her key minerals are low. No need to fret! We have answers for you. Please review the following suggestions from the veterinarian in this report.

The Current Reference Ranges are based upon a general population study consisting of a database of 50 dogs. These dogs might have been fed a kibble diet.

We think it needs to be emphasized that nutritional deficiencies or excesses are slow progressive problems. HTMA gives us a multi-month snapshot of body function and nutrition. Values can be elevated prior to clinical signs of deficiency or excess. And levels of these minerals are probably more indicative of dietary intake than a problem.

Molly's results are low for many key minerals, which is of great concern. Limited information about her diet is available in terms of amount or proportions of meat/bone/organs/ vegetables. Total intake seems reasonable given her body size. Several supplements are being given, and are from brands recognized as being well sourced and of high quality. Details of diet, food sourcing, vaccination history, medications, and other information may alter our interpretation of these results.

This is not a replacement for seeking veterinarian care with your preferred veterinarian. In fact, we highly suggest you seek out the advice of your veterinarian with this information available for them to review. If you would like to speak with one of our board certified veterinarians then please let us know at [hello@parsleypet.com](mailto:hello@parsleypet.com).



## Nutritional Blueprint Test

Cooper



● = High Risk      ● = Outside Reference Range or Elevated Risk      ● = Within Reference Range

Nutritional Elements	Result	Initial Result	Reference Range
Calcium . . . . .	● 21		41—129
Magnesium . . . . .	● 4.6		7—27
Sodium . . . . .	● 45		5—205
Potassium . . . . .	● 7		10—62
Copper . . . . .	● 1.8		.7—1.7
Zinc . . . . .	● 22		2—20
Iron . . . . .	● 1.2		9—35
Mercury . . . . .	● .04		≤.04
Manganese . . . . .	● .029		.03—.33
Chromium . . . . .	● .05		.02—.12
Selenium . . . . .	● .13		.02—.16
Boron . . . . .	● .28		.05—.59
Cobalt . . . . .	● .001		.002—.026
Molybdenum . . . . .	● .001		.002—.022
Sulfur . . . . .	● 4710		3085—4885





## Nutritional Blueprint Test

Cooper



= High Risk



= Outside Reference Range or Elevated Risk



= Within Reference Range

### Toxic Elements

	Result	Initial Result	Reference Range
Uranium . . . . .	.0005	.0005	≤.02
Arsenic. . . . .	.010	.010	≤.02
Beryllium . . . . .	.001	.001	≤.002
Mercury . . . . .	.01	.01	≤.04
Cadmium . . . . .	.001	.001	≤.02
Lead . . . . .	.1	.1	≤.22
Aluminum. . . . .	0.3	0.3	≤3.2

### Additional Elements

	Result	Initial Result	Reference Range
Germanium. . . . .	.001	.001	.000—.040
Barium . . . . .	.01	.01	.04—.40
Lithium . . . . .	.001	.001	.000—.008
Nickel . . . . .	.01	.01	.05—.25
Platinum. . . . .	.001	.001	.000—.020
Vanadium . . . . .	.005	.005	.004—.060
Strontium . . . . .	.02	.02	.00—.36
Tin . . . . .	.01	.01	.00—.04
Tungsten . . . . .	.001	.001	.000—.040
Zirconium. . . . .	.01	.01	.000—.060



## Nutritional Blueprint Test

Cooper



= High Risk



= Outside Reference Range or Elevated Risk



= Within Reference Range

### Significant Ratios

	Result	Initial Result	Reference Range
Calcium/Phosphorus . . . . .	.72		1.17—6.79
Sodium/Potassium . . . . .	6.43		.56—20.50
Calcium/Potassium . . . . .	3.00		.66—12.90
Zinc/Copper . . . . .	17.00		7.06—28.57
Sodium/Magnesium . . . . .	9.78		1.29—29.29
Calcium/Magnesium . . . . .	4.57		1.50—18.43
Iron/Copper . . . . .	.90		1.59—14.40

### Toxic Ratios

	Result	Initial Result	Reference Range
Calcium/Lead . . . . .	210		≥205.3
Iron/Lead . . . . .	9		≥13.6
Iron/Mercury . . . . .	90		≥67.6
Selenium/Mercury . . . . .	13		≥0.6
Zinc/Cadmium . . . . .	17000		≥600
Zinc/Mercury . . . . .	1700		≥300
Sulfur/Mercury . . . . .	471000		≥77126
Sulfur/Cadmium . . . . .	4710000		≥154250
Sulfur/Lead . . . . .	47100		≥15426



## Nutritional Blueprint Test

Cooper



### Endocrine Results

#### Result

#### Initial Result

Pituitary



OK



Thyroid



OK



Adrenal



OK



### WHAT DOES THIS MEAN?

The endocrine results are a representation of the pituitary, adrenal, and thyroid relationship. These endocrine glands influence energy production and ultimately the health and performance of the dog. Ideally, there should be a balance within all three levels. The levels need not be at the ideal range. However, they should be balanced above, below or at the "ideal" point. A major deviation between them can indicate a tendency or trend toward adverse health condition.



#### What to do?

Pituitary, thyroid and adrenal performance is adequate at this time.



## Nutritional Blueprint Test

Cooper



### Performance Results

### Result

### Initial Result

Endurance

● OK



Speed

● OK



## WHAT DOES THIS MEAN?

The performance results show the domination of the thyroid gland over the adrenal glands. This is indicative of the tendency toward GOOD ENDURANCE OVER LONGER DISTANCES, or for longer periods of time.

However, as a result of thyroid dominance over the adrenals, SPEED, QUICKNESS, AND/OR POWER OVER SHORT PERIODS OF DURATION OR DISTANCE MAY BE NEGATIVELY AFFECTED.



### What to do?

The thyroid is dominant to the adrenals, suggesting good endurance.



## Nutritional Blueprint Test

Cooper

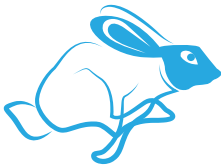


# YOUR DOG'S MINERALS + SCIENCE = MORE TAIL WAGS

## METABOLIZER

### FAST

A higher metabolic rate is a FAST METABOLIZER.



### SUGGESTED Follow Up TESTS

- Complete Blood Count (CBC)
- Vitamin D Test
- Re-test Nutritional Blueprint in 6-9 months



## HOW DOES HAIR GIVE THIS INFO?



Hair is formed from clusters of matrix cells that make up the follicles. During the growth phase, the hair is exposed to the internal metabolic environment such as the circulating blood, lymph, and extracellular fluids. As the hair continues to grow and reaches the surface of the skin, its outer layers harden, **locking in the metabolic products** accumulated during this period of hair formation. The biological process provides us with a **blueprint and lasting record of nutritional metabolic activity** that has occurred during this time.

DISCLAIMER: This information is designed for nutritional and educational purposes and is not intended to diagnose, treat, cure or prevent any disease. It is not intended to replace veterinary advice or attention by a veterinarian. You may wish to consult a holistic veterinarian to discuss changes to nutrition, healthy, exercise, and supplementation. The statements on this report have not been evaluated by the Food and Drug Administration or the Board of Veterinary Medicine. If you are looking for a holistic veterinarian, then visit: [www.ahva.org](http://www.ahva.org) to find one in your area.





## Nutritional Blueprint Test

Cooper



## What's Wrong &amp; What To Do

## Low Calcium, Low Phosphorus, Low Calcium to Phosphorus Ratio

## Why does this matter?

These low levels are combined for discussion purposes, as they all are inter-related with regard to bone and dental health. Long term, these deficiencies/imbbalances will weaken bones, cause pain, and can lead to pathologic fractures. Factors contributing to the problem can include deficient dietary intake, decreased vitamin D levels, impaired absorption, excess vitamin A, or parathyroid abnormalities

## What to do?

Verify the dietary intake of calcium, phosphorus, and vitamin D from all sources

Consider a blood vitamin D level. Note that given the presence of a haircoat, dogs are inefficient in making vitamin D upon exposure to sunlight.

## Low Magnesium

## Why does this matter?

Magnesium is a cofactor for many enzymes, as well as being part of the structural development of bone. It helps with nerve impulse transmission and muscle contraction, including that of the heart. Severe deficiency of magnesium is associated with low calcium and/or low potassium, as mineral homeostasis is disrupted.

## What to do?

Deficient intake is the most common reason for deficiency of magnesium. Evaluate the dietary content for magnesium. Meats contain moderate to low levels of magnesium, with liver and heart typically being the highest.

## Low Potassium

## Why does this matter?

Potassium is vital to basic body functions, including fluid balance, muscle contraction (including the heart), and other vital functions. A low blood potassium level, especially in relation to sodium, is associated with muscle weakness, twitching, and abnormal heart rhythms.



## Nutritional Blueprint Test

Cooper



### What's the Issue & What To Do

#### Low Iron

##### Why does this matter?

Low iron can be associated with anemia. This can lead to decreased oxygen supply to the tissues. Common causes of deficiency include protein deficiency (in this case possibly related to variety of proteins, not quantity), hard water, vitamin B6 deficiency, toxic metal accumulation, or parasites.

##### What to do?

Evaluate the diet. Investigate water quality and rule out parasitism. Consider a complete blood count (CBC) with manual review for red blood cell morphology to evaluate for any indications of anemia.

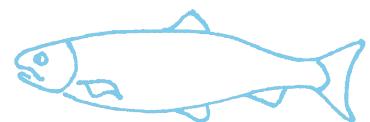
#### Low Manganese

##### Why does this matter?

Manganese is instrumental in fat metabolism as well as skeletal development and ligament health.

##### What to do?

Evaluate the diet for manganese sourced from food. Investigate the bioavailability of the supplemented manganese. A food source such as mussels (1 mussel /15 pounds bodyweight) given daily will meet manganese most needs.





## Nutritional Blueprint Test

Cooper



### What's the Issue & What To Do

#### Low Cobalt

##### Why does this matter?

Cobalt was extremely low/barely detectable. Cobalt is vital for enzyme activation, GI health, and is a key component of vitamin B12. Reduced levels can be caused by low dietary intake, medications, parasite, and fluctuation in the normal gut microflora leading to impaired absorption.

##### What to do?

Evaluate the diet. Leafy greens can be a great cobalt source, as can some organ meats. Consider probiotics, and microbiome testing.

#### Low Molybdenum

##### Why does this matter?

Molybdenum is a part some enzyme systems. Although the value is below the normal level for our testing, at this time very little is known about molybdenum deficiency.

##### What to do?

No action needed at this time.

#### Elevated + Low Additional Elements

##### Why does this matter?

These additional elements are being reported solely for research purposes. Currently there is no documentation regarding elevated hair tissue levels of these elements in dogs.

##### What to do?

No action needed at this time.





## Nutritional Blueprint Test

Cooper



## What's the Issue &amp; What To Do

## Additional Considerations from the Veterinarian:

Evaluate sourcing of foods/treats. Could fish skins be a source of heavy metals, which may impair some nutrient absorption?

Supplements are being used to provide manganese and magnesium, however levels are still low. Dogs may absorb nutrients more effectively from food sources than supplements. Consider a feeding plan using whole foods and minimizing commercial supplements.

Thank you for being the Best Pet Parent!

You are taking a step to good, no GREAT HEALTH for your  
furry family member!

For more pet health tips, see [ParsleyPet.com](https://ParsleyPet.com).

