HAIR MINERAL ANALYSIS PROGRAM

Name: Jacky Date: Sep 2024 Practitioner: Koay Yih Zi (info@healthbalancing.com)

https://healthbalancing.com/



Jacky Hair Mineral Analysis results from 01 Sep 2024.





10 nutritional elements were tested.

3 elements were at high levels and 7 elements were at low levels.





		NUTRIENT MINERAL LEVELS								
Г	610	192	94	191	26.8	3.7	3.8	45.8	.19	89.3
	578	182	89	181	25.4	3.5	3.6	43.4	.18	84.6
	546	172	84	171	24.0	3.3	3.4	41.0	.17	79.9
	514	162	79	161	22.			38.6	.16	75.2
	482	152	74	151	²¹ Out D	thing Co	ming	36.2	.15	70.5
	450	cium and	69	141	^{21.} Out P 19.8		2.8	33.8	.14	65.8
		gnesium ained to	64	131	18.4	2.5	2.6	31.4	.13	61.1
		lace dumped	off 59	121	17.0	2.3	2.4	29.0	.12	56.4
	354	ic metals	54	111	15.6	2.1	2.2	26.6	.11	51.7
	322	102	49	101	14.2	1.9	2.0	24.2	.10	47.0
	290	92	44	91	12.8	1.7	1.8	21.8	.09	42.3
	258 Thr	ee Lows Pa	ttern	81	11.4	1.5	1.6	19.4	.08	37.6
	226	72	34	71 🔺	10.0	1.3	1.4	17.0	.07	32.9
	194	62	29	61	8.6	1.1	1.2	14.6	.06	28.2
	162	52	24	51	7.2	0.9	1.0	12.2	.05	23.5
	130 🕇	42 🕇	19	41	5.8	0.7	0.8	9.8	.04	18.8
	98	32	14	31	4.4	0.5	0.6	7.4	.03	14.1
	66	22	9	21	3.0	0.3	0.4	5.0	.02	9.4
	34	12	4	11	1.6	0.1	0.2	2.6	.01	4.7
Ļ	2	0	Ö	1	0.2	0	0	0.2	0	0
	53.0	12.0	132.0	22.0	2.2	0.9	0.047	13.0	0.067	35.0
	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Iron (Fe)	Copper (Cu)	Manganese (Mn)	Zinc (Zn)	Chromium (Cr)	Phosphorus (P)
evious st:	66.0	14.0	124.0	17.0	2.1	0.9	0.046	12.0	0.063	36.0
51.		Т	oxic Meta	ls		Ratios	Ideal Ratio	Pt Ratio	Testing by: Accutrace Lab	~
	3.6	.04	.12	.12	.12	Ca/Mg	3.13	4.42	4.71 Alice . AZ 85	Ave 021
	2.7	.03	.09	.09	.09	Ca/K	3.18	2.41	3.88 03D064	41886
	1.8	.02	.06.	.06	.06	Ca/P	6.88	1.51	1.83	
	0.9	.01	.03	.05	.05	Na/Mg	0.47	11.00	8.86	
	0.	009 0.005	0.005	1.81	0.001	Na/K	0.48	6.00	7.29	
	Lea (Pb		Cadmium (Cd)	Aluminum A (Al)	Arsenic (As)	Zn/Cu	13.28	14.44	13.33	
evious st:	0.0	110.006 lenium (Se)		C. C. Martine and Complete	0.001	0.7				

0.084 0.011 2225 WEST ALICE AVENUE • PHOENIX, ARIZONA • (602) 995-1580 • www.arltma.com

INTERPRETATION OF YOUR TEST RESULTS:

The interpretation of a hair tissue mineral analysis depends upon developing a "metabolic blueprint" of how the body is responding to stress. The ability to determine the stage of stress and the oxidation rate from a hair tissue mineral analysis makes it possible to assess the likelihood of many conditions and guide correction based upon metabolic imbalances. The following provides an interpretation of the most pertinent observations based on your pet's hair test.

Your Oxidation Type: Fast Oxidation

Jacky's oxidation rate has resolved from a fast mixed oxidation rate (where there are symptoms of both slow oxidation and fast oxidation) to a fast oxidation rate.

A thyroid ratio (Ca/k) less than 3.18 and an adrenal ratio (Na/mg) greater than 0.47 are associated with fast oxidation. Fast oxidation is identical to an alarm stage of stress, and is characterized by a lot of activity of the sympathetic nervous system. A fast oxidizer is an individual who metabolizes food at a rate faster than ideally required for the production of optimal energy levels. Although this results in higher energy levels, the energy generated is temporary and is dissipated rather quickly.

Fast oxidation is identical to an alarm stage of stress, and is characterized by a lot of activity of the sympathetic nervous system. Those with a fast oxidation rate tend to be anxious, irritable, in a hurry, and aggressive if their oxidation rate is very fast. They are in a fight-or-flight mode too much of the time. This uses up certain nutrients and eventually can result in symptoms and illnesses associated with this metabolic type. These include high blood pressure, fatal heart attacks, anxiety, panic attacks, arthritis, and others.

Those with a fast oxidation rate are prone to severe and acute allergic reactions. This is because fast oxidizers often have low adrenal reserves, and they often have excess cell permeability. Also, fast oxidation is an inflammatory state, associated with high histamine levels. Allergies are an inflammatory reaction of the body that are also associated with excessive histamine release.

Causes for fast oxidation include too much carbohydrates, too little fat intake, stress, and excessive toxic metals.





KEY MINERAL RATIOS

Ca/mg Blood sugar ratio Good	Calcium to magnesium ratio has decreased and remains in good range. The Ca/mg ratio has to do specifically with carbohydrates in the diet. Calcium is required for the release of insulin from the pancreas, whereas magnesium inhibits insulin secretion. Calcium to magnesium ratio in a good range indicates good carbohydrate tolerance.					
Ca/k Thyroid ratio High	Calcium to potassium ratio has decreased. A "high" thyroid ratio (low calcium to potassium) is associated with excessive thyroid activity . Symptoms may include excessive sweating, hyperactivity, irritability, nervousness, frequent bowel movements or diarrhea during times of stress, oily hair and skin.					
Na/mg Adrenal ratio High	Sodium to magnesium ratio has increased. A high sodium to magnesium ratio indicates excessive adrenal activity. Symptoms may include glucose intolerance, hypertension, increased stamina and drive and tendency to inflammation.					
Na/k Vitality ratio High	Sodium to potassium ratio has decreased indicating reduced stress and inflammation. A high sodium to potassium ratio indicates tendency for acute stress, inflammation or pain in the body. Other symptoms may include water retention, edema, and perhaps higher or fluctuating blood pressure due to water retention and/or kidney stress.					

Click for detailed information on mineral ratios.



HAIR MINERAL PATTERNS

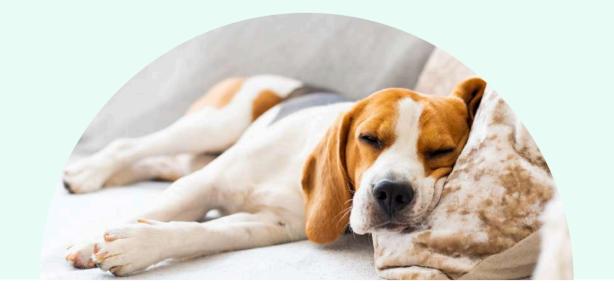
Three lows pattern: this pattern is also named overwhelming stress or almost four lows. This is when three of the four major electrolytes - calcium, magnesium, sodium or potassium - are below their ideal values, and one of them is above the ideal. This pattern indicates some degree of adrenal exhaustion, and that a person is moving toward a four lows pattern.

This is a lower energy pattern and a burnout pattern. With a three lows pattern, the body is malnourished and usually quite toxic. Either one has a lot of toxic metals or too many nutrient minerals that are in a toxic form.

Four lows on the second four minerals: the second four minerals (iron, copper, manganese and zinc) represent a deeper, older layer of metabolism. When the second four minerals are all below the ideal levels, this indicates a collapse and exhaustion at a deep and hidden level. It is often a chronic pattern that can last for years if not corrected.

Coming alive pattern on second four minerals: this pattern is said to be present on a retest whenever the levels of all of the second four minerals (iron, copper, manganese and zinc) rise on a retest. It is also present, to a lesser degree, when 1, 2 or 3 macrominerals increase on a retest, providing the other minerals remain the same as on the previous test. Coming alive pattern indicates more energy at a deep and hidden level, in general, and an awakening or significant enhancement of the adaptive energy. It is considered a positive change pattern on a retest.

Everything coming out pattern: An excellent healing pattern. This pattern indicates an increase in the elimination of six or more toxic minerals or toxic forms of nutrient minerals. This pattern also means an overall increase in the body's tendency and ability to eliminate toxins of many types. Jacky's retest indicates increased elimination of sodium, potassium, iron, manganese, chromium, cadmium, selenium and nickel.





Understanding mineral levels

Calcium has decreased and remains low. Jacky is eliminating toxic metals, so calcium and magnesium are being retained to replace the metals that are dumpling. Calcium and magnesium are being retained for healing.

Magnesium has decreased and remains low. Jacky is eliminating toxic metals, so calcium and magnesium are being retained to replace the lead that is dumpling. Calcium and magnesium are being retained for healing.

Sodium has increased and remains high (adrenal stress pattern). A high sodium indicates volatility, high stress, inflammation. An elevated hair sodium level is a feature of fast oxidation and an alarm stage of stress. The cause is usually higher aldosterone secretion by the adrenal glands. This may be due to acute stress or to emotions such as anger or fright. Cadmium and other toxic metals in the kidneys, along with kidney infections, can also raise the hair tissue sodium level.

Potassium has increased and is closer to ideal level. Jacky's potassium levels are more balanced now. Potassium has many roles, especially intracellular fluid balance, and cell membrane effects such as muscle contraction, nerve impulse conduction, and cell permeability. A low potassium level on a hair tissue mineral analysis is often associated with excessive excretion of potassium due to stress and adrenal gland weakness. Very low potassium is associated with allergies, fatigue, low blood sugar, sweet cravings, and low blood pressure.

Zinc has increased and is closer to ideal level. Zinc is required for hundreds of enzymes that control functions including vision, hearing, health of the skin, hair, nails, connective tissue, sexual function, digestion, immune response, and more. Zinc is also involved in protein synthesis, a vital function.

Chromium has increased and remains high. Jacky is eliminating toxic chromium from the body. High chromium usually indicates toxicity. Certain water supplies are contaminated with chromium from old factories, or for other reasons. Toxic forms of chromium are biounavailable, meaning that they do not function well in the body. High amounts of toxic chromium in the brain, perhaps a hexavalent chromium, may be associated with feelings of sadness. The toxicity of hexavalent chromium is well known.

Phosphorus has decreased and is closer to the ideal level. Phosphorus is an essential mineral that is involved in protein synthesis and energy production. All proteins contain phosphorus and thus are a significant source of organic phosphorus. The hair mineral level of phosphorus is often associated with the adequacy of protein synthesis in the body. An elevated phosphorus level is frequently indicative of excessive protein breakdown of body tissues. As proteins break down, phosphorus is released.

Aluminum has decreased and remains elevated. Jacky has dumped off some toxic aluminum from the body. Most dogs have high levels of aluminum. This affects thinking and other body systems. Dogs are often born with high aluminum and pellet or commercially processed food usually makes it worse.





Supplement Recommendations

Targeted supplementation to increase vitality

The following nutritional supplements are recommended for your pet based on the hair test results. The supplements serve to balance the body chemistry and supply essential nutrients. This drastically increases adaptive energy in the animal. As this occurs, healing follows, without a need for many remedies or drugs.

Supplement	AM	Ν	PM	Notes
Stress Pak	quarter	0	0	A vitamin-mineral product to reduce the rate of metabolism in fast oxidizers.
Paramin	quarter	0	half	Supplies calcium and magnesium.
Zinc 22.5mg	quarter	0	quarter	Lowers the sodium/ potassium ratio.
EPA DHA 1000mg	1	0	0	Essential fatty acids for healthy cell membranes.
Kelp 600mg	quarter	0	0	Supplies iodine and trace minerals.

SUPPLEMENT TIPS:

• When starting the supplements start slowly and increase slowly taking about 7 days to 10 days to get up to the full dose. This is because some dogs have sensitive digestive systems and it gives their body a chance to get used to it.

Remarks on diet and supplements:

- The supplements will work to balance Jacky's body chemistry. As she becomes healthier, her symptoms will improve. Excessive amounts of chromium causes feelings of sadness, as Jacky eliminates toxic chromium she will start having better moods. Occasionally, we find toxic amounts of chromium in dog foods or dog treats. It is always better to give home cooked foods.
- For Jacky's allergies, please note that some dogs are allergic to beef. You may also pay attention to which other foods trigger allergic reactions and eliminate these foods from her diet.
- It is very important to follow our recommended diet program. We do not recommend giving Jacky cheese as we find that dogs do not do well on dairy. Cooked vegetables are excellent for alkalising and remineralising the body.

How to give supplements to dogs:

- For most dogs. Mix supplements into the food with something the dog likes on top and the dog will eat them.
- For very fussy dogs. First, make supplements into a powder with a pill crusher that is sold at the supermarket or pet store. Then either mix them with the food or put them in a syringe with some water or carrot juice and inject them into the mouth. This is rarely needed, however.
- Use regular human supplements for dogs. They are often of better quality than many that are sold for dogs.





Supplement Details

You can find detailed ingredients here.

• Stress Pak

A metabolic vitamin-mineral product designed to reduce the rate of metabolism in fast oxidizers.

• Paramin

This supplement provides the vital elements calcium and magnesium that many pets are deficient in (calcium 200mg and magnesium 120mg). These are calming minerals and are helpful for anxiety, sleep difficulty and muscle cramps.

• Zinc 22.5mg

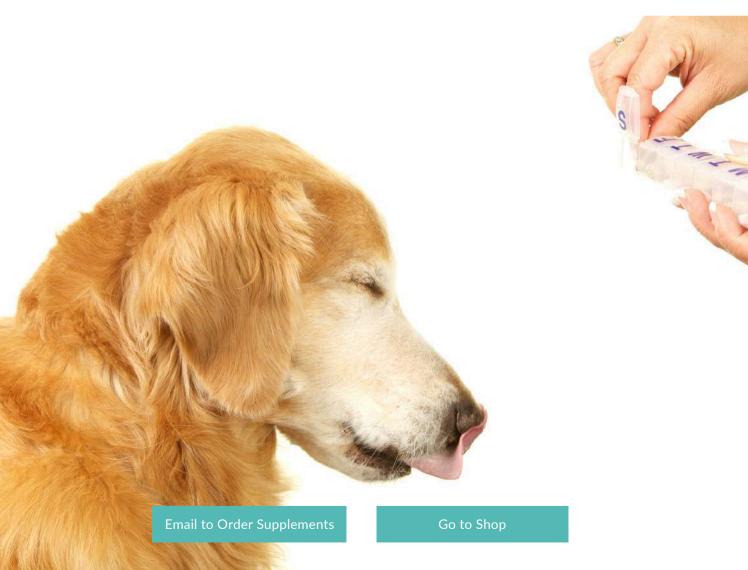
Essential anti-inflammatory mineral to balance copper, strengthen immunity, improve protein synthesis and to lower the sodium/potassium ratio.

• EPA DHA Fish Oil 1000mg

EPA DHA is a general anti-inflammatory substance that is essential for building cell membranes throughout the body and the brain. It is important for the health of the nervous system and for brain function.

• Kelp 600mg

This supplies iodine for hormone health and immune function. It also supplies many trace minerals for remineralising the body.





DIET RECOMMENDATIONS

DIET IS A KEY. Dogs have plenty of health problems, and in most cases it is simply due to feeding the dog incorrectly.

Commercial dog food. Fresh cooked meat and vegetables are far superior to commercial dog food. Most dog foods contain grain, which is not a native food for dogs; some contain organ meats which should not be eaten too frequently. Too much organ meats may result in heavy metal toxicity or vitamin A toxicity.

FAST OXIDISER DIET:

50% cooked vegetables (varied and can be whatever you are making for yourself, most dogs love carrots), 50% cooked meat, and extra fats with each meal.

Most often the meat should be dark chicken meat (legs/thighs) and cooked carrots should be given daily. As a treat you can also give some lamb or sardines from time-to-time but most often the meat should be chicken. Once a week you can give the meat of another bird (quail, turkey, duck.) A homemade gravy can be put on top of the vegetable if needed.

Fast oxidisers do best eating plenty of cooked vegetables for remineralization, some animal protein daily, very few complex carbohydrates and some additional fat at each meal. Avoiding sugar in all forms is important for fast oxidizers.

Fast oxidizers have overactive adrenal and thyroid glands. Fast oxidizers require extra amounts of fats and oils in their diet in order to feel their best. They burn their food quickly and their caloric needs are greater. They also do best on a lower carbohydrate diet, obtaining most of their calories from fats and oils. Fats provide more calories and longer-lasting energy. In contrast, sugars burn too fast, provide fewer calories and often further enhance the oxidation rate.

By emphasizing fats and proteins, this diet helps to provide consistent energy and slow down the oxidation rate to a more balanced state. Too fast a rate is like a car engine that needs to downshift because it is running at too many RPMs for the situation. Slowing down the oxidation rate for fast oxidizers actually increases their energy.





Cooked vegetables are a healthy component of a dog's diet. Cooking is required as dogs cannot digest raw vegetables well and cannot extract enough minerals from tough vegetable fibers. Cooked vegetables supply alkaline minerals that help to displace toxic metals from the body. They are detoxifying and also work to nourish and remineralise the body.

Eat carrots, onions and cruciferous vegetables daily:

Preferred cruciferous vegetables

- Brocollini, red cabbage, savoy cabbage, cauliflower, brussels sprouts, rutabaga

Preferred colorful vegetables - all colors of rainbow

- Carrots, onions, shallots, scallions, leeks, rutabaga, daikon radish, purple radish, green beans, celery, garlic, ginger, golden beets, chives, horseradish root, winter squashes, mizuna



To get your dog to eat vegetables, puree or put vegetables in the food processor to grind them up. In some cases, the dog will just eat the vegetables plain, especially if mixed in with some cooked meat. For a small dog, especially, cut up vegetables into small pieces or use a hand blender to puree the vegetables if you are having trouble getting your dog to eat them. However, do not add a lot of water to the vegetables. This is why a hand blender is much better than a regular blender that requires much more water in order to blend the food.



Cooked meat. Dogs require freshly cooked meat every day. They do not do well on pellet food that is mainly grain such as corn or wheat, which is not healthful for dogs.

They require meat that is cooked as it has many fewer bacteria in it. Raw meat is also hard on the digestive tract of dogs. Usually, the best meat for a dog is boneless, skinless chicken thighs. The best way to prepare the meat is to slice it thin and then throw it in a little boiling water for just about 20 seconds or so, turning it over so it cooks so it is not pink. Do not overcook it and do not serve it raw. Do not give dogs organ meat, except once in a while. It is too high in toxic metals.

Fats. Most dogs are fast oxidizers. This means they need extra fat with every meal. The best way to do this is to always use dark meat chicken and never use chicken breast. Also, to increase fat, you can give a dog extra animal fat such as some beef or lamb fat from your food.

Food allergies. Many dogs are allergic to beef. If you are having a problem with scratching, digestive upset or other possible allergy symptoms, do not give the dog any beef, even naturally raised beef. Rarely, a dog is allergic or sensitive or intolerant of other foods. Try to notice if the dog is not feeling well after a particular type of vegetable or meat is eaten.





Water. Spring water or the water you drink would be the preferred water. If possible, offer two kinds of water to drink: carbon filtered tap water and spring.

Water to avoid. Drinking waters to definitely avoid include reverse osmosis water, in all cases. Also, I do not recommend giving dogs special types of water such as alkaline water, or energized water or water that has been filtered by a multi-stage filter. Too often, these have been altered in ways that are harmful for the dog.





The easiest way to feed your dog. The best way to feed most dogs is when you shop for food, buy extra organic vegetables and extra meat. When you cook these for yourself, cook the extra and give it to your dog every day. This is probably the easiest and the best food for most dogs.

Feeding times. Feed most dogs twice daily, in the morning and in the evening. The dog will usually not overeat, so if the food is all gone, you are probably feeding the dog too little food and increase it somewhat. If food is leftover, you are probably giving the dog too much.

Bones. Dogs also like and may need a bone to chew on. This is to sharpen the teeth, mainly, but it is also enjoyable for most dogs, and they can scrape some minerals off the bones as well. **The bone must be huge** so there is no possibility of the dog choking on the bone. This is most important. A full-sized turkey, beef or lamb leg bone should work. No chicken bones, at all should ever be given to a dog.



FOODS TO AVOID.

This is an important section. Please read it carefully.

- DO NOT feed a dog raw meat, although the dog can eat it. It is not good at all for most dogs today. However, a very small amount of raw meat such as raw hamburger or raw chicken, perhaps, is excellent for some younger dogs.
- DO NOT FEED a dog raw vegetables. Like human beings, they cannot absorb enough minerals from raw food, so raw vegetables are not the best food for them and will cause mineral depletion after a while.
- DO NOT FEED a dog any sweets such as fruit, juices or other sweet food items. This is quite important if you want to have a healthy dog.
- DO NOT FEED grains to dogs. Grains are not healthful for dogs and may result in obesity.
- DO NOT FEED dogs eggs or dairy products such as cheese or even a little raw butter, although some egg yolk can be wonderful for a dog's coat about once a week. We do not suggest feeding a dog any milk or milk products. We believe they are not able to digest it very well at all, and it could make them ill.
- DO NOT FEED DOGS any coconut oil or other vegetable oils at all.
- DO NOT FEED DOGS sweet potatoes or yams. They don't work as well.
- DO NOT FEED DOGS xylitol. Xylitol poisoning in dogs has doubled in recent years because xylitol is used in more and more products today as a non-sugar sweetener. It is found in many sweetened nut butters and peanut butter, for example.



OTHER RECOMMENDATIONS:



RETESTING. We recommend sending us a retest hair mineral analysis in 4 months. Retests are useful to keep your pet's healing program appropriate and updated.

Love. Animals all require a lot of care and love. Never overlook this factor in your care of all animals.

Warmth. Most indoor and warm-climate animals prefer an ambient temperature of about 74 degrees F. or about 24 degrees C. Please keep your animals as warm as you are.

Bathing. Plain castile soap is preferred over detergents or chemical shampoos. If someone else will bathe your dog such as a grooming shop, you bring the correct soap and tell the groomer this is the only product you want used on your dog.







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