



**TOXIC  
HAIR ANALYSIS  
FOR CATS**

[www.petsdiag.com](http://www.petsdiag.com)

**OLIWER**

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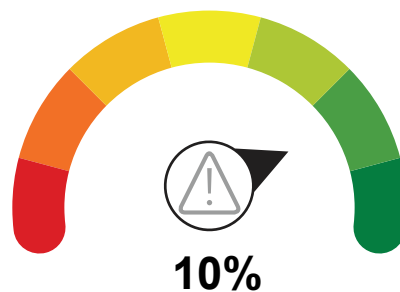
Test code: **PL112233AABBCC**  
Date of the test: **10.04.2023**



# Your cat Health overview

A cat needs the right amount of nutrients to be healthy. However, the absorption of vitamins and minerals is blocked by toxic elements that weaken the functioning of the entire organism. The lower the toxic burden, the higher the protection of your cat against the development of minor ailments and serious diseases. Skin problems, decreased immunity, urinary system issues, digestive problems, growth and bone structure disorders, circulatory problems, reproductive issues, and unhealthy look of the coat appearance are some of the symptoms that may indicate the body's burden from toxic elements.

**The level of heavy metal burden of your cat's body determined by the THAA tests is:**



THE TOXIC BURDEN  
SHOWN IN THE RESULT

The general level of toxic elements is safe. Check the individual heavy metals in the further part of the result\*

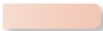


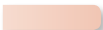

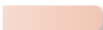


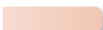



\*Note: the graph shows the average. If the percentage result is low, it can reflect a good result or a high excess of one toxic element. When the percentage result is high, it can reflect bad results or that all heavy metals are in excess but close to the safe limit. So, it is crucial to check the report to obtain further details.

## THAA TEST RESULT

toxic elements present in your cat's body

### CONCENTRATION OF TOXIC ELEMENTS

Element	Patient's result (ppm)	Maximum value	EXCESS
Aluminium (Al)	<b>64,54</b>	235,18	
Arsenic (As)	<b>0,01</b>	0,17	
Barium (Ba)	<b>0,84</b>	2,42	
Cadmium (Cd)	<b>0,01</b>	0,17	
Lithium (Li)	<b>0,11</b>	0,06	
Nickel (Ni)	<b>0,11</b>	0,84	
Lead (Pb)	<b>1,04</b>	2,99	
Mercury (Hg)	<b>0,01</b>	0,12	
Strontium (Sr)	<b>0,72</b>	2,52	
Vanadium (V)	<b>0,20</b>	0,28	

Every organism is exposed to toxic elements that get in from the external environment. The presence of such elements in the body is, therefore, inevitable and, in excess, dangerous to health.

The study is performed using the ICP-OES technique – optical emission spectrometry with excitation in inductively coupled plasma. Analysed on the Avio 200 PerkinElmer spectrometer by the analyst technician, Pets Diag laboratory.

*Janicka*  
**Izabela Janicka**  
starszy technik analityki

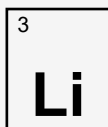


**European Union**  
European Regional  
Development Fund



# THAA Information about your cat's health – assessment of biochemical threats

Your cat's THAA result showed that there are some disturbances in its organism:



Lithium is an element that occurs in the environment in small amounts. Cats are very rarely exposed to an excess of this metal. Symptoms of poisoning are depression, diarrhoea, and ataxia (impaired body coordination).

Element	The THAA result showed
Lithium (Li)	<b>EXCESS</b>



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## Sources of heavy metals

The main threat posed by toxic elements is their antagonistic relationship to micro and macro elements. This means that if your cat is loaded with heavy metals, they block the absorption of essential nutrients and, as a consequence, can cause serious illnesses.

Most heavy metals occur in nature in trace amounts. Their presence is related to processes such as volcanic eruption, ocean evaporation, bushfires, and rock weathering. They don't usually have a negative effect on the natural environment. However, progressing urbanisation and significant industrialisation have contributed to the increase of the concentration of heavy metals in nature. Sources that pollute the ecosystem with toxic elements include heat and power plants, power plants, ironworks, combustion engines, the chemical industry, coal stoves in homes, incineration of waste, and incorrect storage of animal manure on farms. In this way, heavy metals reach the atmosphere, water, soil, settle on the aboveground plant structures, and are taken up by plant root systems.

Household chemicals, and above all food, such as tuna and salmon, popular in cat nutrition, can also be the source of heavy metals. In addition, serving food in metal bowls, storing products in aluminum foil, commercial canned food and many other factors expose the cat's body to mercury, cadmium, lead, arsenic, and aluminum. Clinical symptoms depend on age, amount ingested and duration of exposure as metals may accumulate in tissues. Acute poisoning is often associated with symptoms related to the nervous system, and slight or chronic exposure to the digestive system.

## Detoxification

Heavy metals are stored by the body in the liver and the spleen, as well as the bones and the coat. The amount of toxic elements in the blood is maintained at a relatively constant level that enables detoxification through the liver or kidneys. After the elimination of heavy metals from the blood, the blood receives subsequent portions that were stored in the body. That's why detoxification is a very slow process.

The best way to reduce the risk of heavy metal poisoning is to locate and eliminate its source. You should also provide a properly balanced diet. A malnourished organism is more susceptible to the action of toxic elements. A deficiency in some microelements increases the absorption of heavy metals, e.g., calcium deficiency increases the absorption of cadmium and lead. Maintaining a proper level of iron in the body reduces the absorption of heavy metals and the toxic effect of lead on the circulatory system. Zinc has a positive effect on the excretion of arsenic from the body and decreases the absorption of lead. On the other hand, antioxidants such as selenium, vitamin C and vitamin E minimise the oxidative damage caused by heavy metals.