

## DEXTER

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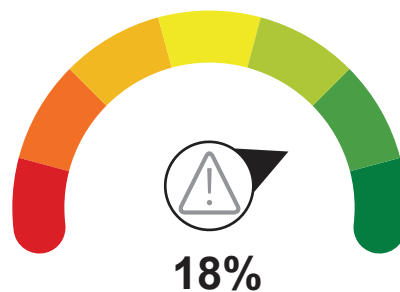
Test code: **EN11AA33BB55**  
Date of the test: **10.04.2023**



# Your dog Health overview

A dog 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 dog against the development of minor ailments and serious diseases. Skin problems, decrease in immunity, digestive system ailments, growth, and bone structure disorders, circulation and reproduction issues, reduced ability to learn and remember commands, behavioral changes, or deterioration of the appearance of the coat are some of the symptoms that may indicate the body's burden from toxic elements.

**The level of heavy metal burden of your dog'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\*


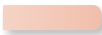

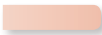

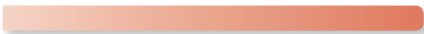


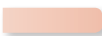




\*Note: the graph shows the average. If the percentage result is low, it can reflect a good result or a high excess of one toxic element. When the percentage result is high, it can reflect bad results or that all heavy metals are in excess but close to the safe limit. So, it is crucial to check the report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

## THAA Test result

toxic elements present in your dog's body

### CONCENTRATION OF TOXIC ELEMENTS

Element	Patient's result (ppm)	Maximum value	EXCESS
Aluminium (Al)	<b>266,53</b>	269,54	
Arsenic (As)	<b>0,01</b>	0,12	
Barium (Ba)	<b>4,64</b>	4,07	
Germanium (Ge)	<b>0,01</b>	0,34	
Cadmium (Cd)	<b>0,07</b>	0,15	
Lithium (Li)	<b>0,27</b>	0,31	
Nickel (Ni)	<b>1,14</b>	1,23	
Lead (Pb)	<b>1,33</b>	1,55	
Mercury (Hg)	<b>0,01</b>	0,12	
Strontium (Sr)	<b>7,98</b>	3,84	
Vanadium (V)	<b>0,65</b>	0,70	

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.

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starszy technik analityki



**European Union**  
European Regional  
Development Fund



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

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



Barium is a toxic element. Its presence in the body is undesirable. Its excess may interfere with the absorption of macro and micronutrients, which in turn reduces the body's immunity and increases the risk of developing diseases.

Element	The THAA result showed
Barium (Ba)	<b>EXCESS</b>

38

**Sr**

## Strontium

Strontium is a toxic element. Its high level is harmful to health and the condition of the organism. Excess strontium disrupts the absorption of macro and micronutrients, which in turn reduces the body's immunity and increases the risk of developing diseases.

Element	The THAA result showed
Strontium (Sr)	<b>EXCESS</b>

## 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 dog 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 volcanic eruption, ocean evaporation, bushfires, and rock weathering. They don't usually have a negative influence on the natural environment. However, progressing urbanization and significant industrialization have contributed to the increase in the concentration of heavy metals in nature. Heat and power plants, ironworks, combustion engines, the chemical industry, coal stoves in homes, incineration of waste, and incorrect storage of animal manure on farms are sources that pollute the ecosystem with toxic elements. In this way, heavy metals reach the atmosphere, water, and soil, settle on the aboveground plant structures, and are absorbed by their root systems. That's why you need to make sure that dogs don't eat grass that's close by to busy roads, heat and power plants, and other industrial areas.

Household chemicals can also be a source of heavy metals. However, primarily, food is their source, such as popular fish additives in dog nutrition. The way we serve meals is also not insignificant. Metal bowls, storing products in aluminum foil, commercially canned food, and many other factors expose the dog's body to mercury, cadmium, lead, arsenic, and aluminum. Clinical symptoms depend on age, the amount ingested, and the 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.