

High Accuracy - Heavy Metal Testing Devices



Professional



"Worlds 1st" Home Use HMT

The new HMT (Heavy Metal Test) allows the detection of free heavy metal ions in bodily liquids like urine and saliva by means of a simple procedure and in just a few minutes. This exploratory procedure, employed as an in vitro diagnostic tool, is based on the dithizone reaction method which has been known to chemical science for more than 60 years. By the qualitative means of coloration, specific metal ions are detected in the urine and in the saliva.

As a reagent, dithizone is able to indicate the presence of heavy metal ions in qualitative and in quantitative terms. In binding with them, colored complexes are formed in the interior of the molecule which are soluble in nonpolar organic solvents. The coloration of these solutions is very intensive, its particular coloration determined by the atomic radius of the respective metal present in the complex. The reaction times of the heavy metal ions vary; therefore, depending on their respective concentrations, different colorations may occur from which one can, in addition to the qualitative conclusions, also semi-quantitative ones regarding the contaminant.

By administering the test as an exploratory measure, contaminations from amalgam fillings or from the environment (cadmium, lead, zinc, mercury, copper, manganese, nickel and cobalt - pointing to infections, organ or system disorders) can be identified early on, so that the patient can undergo detoxification before any specific therapy is administered.

OTHER APPLICATIONS

The HMT can also be used to determine the environmental sources of the contamination in aqueous solutions such as tap water. Since all heavy metal ions are water soluble, solids like food items, porcelain dishes, dust samples from carpets, wall paints and wall paper etc. can be tested for heavy metals by soaking them in distilled water beforehand.

In other words, in addition to being a diagnostic tool for urine and saliva, the test is also useful for finding the causes of contamination in the patient's environment.

Heavy Metal Test Procedure - Professional

The following procedure is for the Professional HMT. I have included it because the procedure is almost the same for the Home Use Heavy Metal Test. The only difference is that with the Home Use Test you do not have to mix or balance solutions as that has already been done for you.

The HMT is easy to conduct and the results are not only quickly obtained but also provide a dramatic and convincing demonstration for the patient.



SETTING pH VALUE

For the test a morning urine specimen (about 30 ml) is required which, using the two pH Solutions A and B, is calibrated to the neutral value of 7.0.



To begin with the test, place one of the dithizone treated indicator squares into a solution of Testsol, which is made from natural products.

The solution takes on a green coloration which signals phase 0 and constitutes the basis for all further tests.



If now a liquid containing heavy metals is added (urine, saliva or other aqueous solution) these heavy metals react with the dithizone and the green coloration changes.

The new coloration is compared each time with those on the coloration chart on the test tube rack. Each coloration corresponds to a specific metal (zinc, copper, cadmium, lead, mercury etc.)

Depending on the amount of tested liquid added (2,4 or 6 ml) the concentration of the respective metal can be determined. (quantity testing)

For more information, to purchase the Heavy Metal Test or other products you can use Lyonel Etienne's access link by [clicking here now.](#)

Or call Lyonel at 480-233-4471

The method permits the identification and concentration of several metals with only one reagent.

Detailed instructions on how to conduct the test and how to evaluate the results are contained in a booklet.

CONCLUSION

Since heavy metals contribute, with up to 80% of the causes, to all diseases, the test for heavy metal contamination has become an essential component of any initial diagnosis for anyone who has the safety of the patient at heart.

With the test, we have created the possibility of determining the level of any such contamination. An ingenious and revolutionary method of making complex biochemical processes visible and of clarifying disease profiles, the test should be available in every practice. The right diagnosis is a precondition for a successful therapy and will result in a satisfied patient.

The Reliable Detection Method for the Clinical Practice

Health authorities (WHO 1974, Florence, Italy) estimate that at least 90% of all chronic diseases can be attributed to environmental pollution in one way or another. Heavy Metals are the major source for the production of free radicals as well as undermining the internal environment and body chemistry. Heavy Metals reduce the efficacy of medical treatment by up to 60%

There is little hope for antioxidants and mineral supplements to do their job properly, if the body is burdened with heavy metals!

The scientifically documented Heavy Metal Test allows the detection of free electrically active heavy metal ions in an aqueous solution by means of a simple procedure and in just a few minutes. This exploratory procedure, employed as an in vitro screen tool, is based on the dithizone(1) reaction method which has been known to chemical science for more than 60 years.

(1) Isolation and Determination of Traces of Metals. The Dithizone System. H.J. Wichmann, Food and Drug Administration, U.S. Department of Agriculture, Washington, D.C; Industrial and Engineering Chemistry.

INTRODUCTION

The success of any therapy depends on a correct diagnosis. It is therefore high time for practitioners to adopt new diagnostic procedures designed to add more detail to the clinical picture, thus enabling them come up with that correct diagnosis and to administer the appropriate treatment. The studies by Ohlenschläger on the Glutathione system, P.G. Seeger on cancer - origins, early recognition and therapy and B. Kuklinski of Rostock on cell damage resulting from free radicals and oxidation have shown that environmental factors rank high among the causes of acute and chronic diseases. In this context, heavy metals play a particular role.

Having entered the organism over extended periods of time, e.g. via amalgam fillings, water supply, food items and air pollutants, the rates of their absorption and their discharge require constant assessment and control.

Their share in causing diseases has been estimated to be in the range of 60 - 70 %. Unfortunately no precise studies exist to date, but as early 1974, at a medical congress organized by the World Health Organization in Florence/Italy, environmental contamination was being considered as a cause for many diseases. The controversial topic of amalgam fillings, subject of numerous heated debates in recent years, and the scientific studies of Till / Teherani on evidence of mercury deposit formation on the dental roots and jaw bones of amalgam carriers, by Gerhard on mercury release correlated to hormonal disorders, by Drasch on mercury stress correlated to the number of amalgam fillings, by Dauderer in the Handbook of amalgam poisoning, and by the German Research Council on acute poisonings and metal detection in the urine reveal how little we know about those medical conditions, their diagnosis and their treatment, in which heavy metals play a causative role.

In cases of acute heavy metal poisoning (commonly the result of accidents or extreme workplace related contamination), clinical toxicology is generally able to provide an effective quick response, e.g. with the DMPS procedure administered as mobilization test and antidote. However, hardly any appropriate treatment or diagnostic procedure was available for cases of long-term heavy metal contamination. No satisfactory method existed for the early recognition heavy metal contamination.

HEAVY METALS AS THE CAUSE OF FREE RADICALS

Until not too long ago, the methods used to detect heavy metal contamination were both cumbersome and costly and in some instances did not even allow differentiating between organically bound and free metal atoms (e.g. Cu, Zn in spectrometric analyses). Recent research has, however, shown that it is essentially electrically active heavy metal atoms not bound with organic complexes which actively destroy molecular compounds and thereby cause the formation of free radicals. Up to a certain point, a healthy body is able to bind (i.e. chelate) free heavy metal atoms, i.e. neutralize their electromagnetic charge and clear them out. If this mechanism is no longer able to function because too many toxins have accumulated in the organism, the number of free radicals will increase, especially if the body is suffering an antioxidant deficiency at the same time. In such cases, administering antioxidant supplements will not solve the real problem, namely the accumulation of heavy metal ion deposits in the body.

Unfortunately, traditional methods like hair or blood analyses have not been able to uncover these connections for the simple reason that the organic sample is destroyed in the course of the analysis. Such procedures were therefore unable to differentiate between metal atoms bound with organic complexes and unbound and therefore electromagnetically active ions, a difference which is crucial in the assessment of the overall situation.

THE DISPLACEMENT PROCESS

In the organism, the bivalent metals are engaged in a continuous fight against one another, e.g. copper against zinc, iron against calcium, which results in the displacement of the "lighter" element by the "heavier" one in terms of their atomic masses. It is well known that heavy metals are enzyme toxins. They must therefore be removed and cleared out by means of a basis treatment which can restore the immune system to a level at which it can sustain itself. Both traditional and holistic practitioners find it quite difficult at this point in time to determine accurately the appropriate drug profile in a given case, the reason being that the respective simile of symptoms has undergone a shift due to the presence of heavy metal ions.

In fact, this phenomenon may be observed for the majority of the classic Hahnemann remedy profiles and it is fair to say that at the present time the effectiveness of any antioxidant therapy is significantly compromised by the presence of heavy metal ions.

It is therefore important to first identify the heavy metal in question and to determine the degree of its involvement. Then, as the cause of the condition, the heavy metal ions must be removed and cleared out.

Due to the close connection between heavy metals and the oxidation process it simply makes no sense to administer all kinds of antioxidants before this has been done. To give an example, recognizing the discharge of zinc as the result of a displacement process will avoid falsely diagnosing the symptoms observed as indicating calcium, iron or copper deficiencies.

To restore balance, it makes no sense to substitute any displaced essential minerals and metals before the heavy metals have been cleared out. This is why the HMT as a quick reagent test belongs into every practice. Many previously unclear symptom combinations will become transparent once a specific contamination has been identified and then eliminated through appropriate treatment. Similarly, indicators pointing to deposits in certain organs will be useful in narrowing down the diagnostic choices. Clinical studies and practical applications will progressively improve our knowledge in this area. That such developments are vitally important is summarized in the maxim that there can be no medicine without environmental medicine.

Heavy Metal Test: A Glimpse at its Historical Development

1925- Revolution in laboratory analysis when Helmut Fischer of the Siemens concern in Berlin succeeded in detecting heavy metal ions by means of a dithizon process.

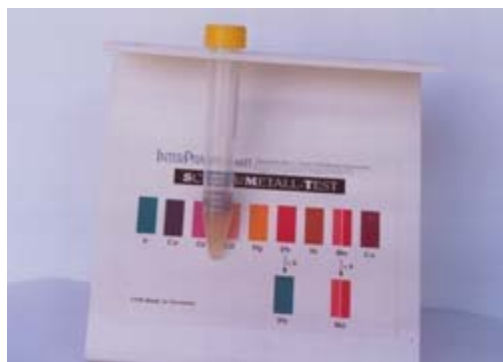
1983- Intensive research and development of test for heavy metal ions in liquids (urine, saliva etc.) by Professor T. Roberts of the University of Newcastle, Australia, culminating in the completion of the first standard practice oriented heavy metal test.

1988- New study and proof of dithizon process for detecting of heavy metals in urine by L. Bert, I. van Dusen, R. Grace of the University of British Columbia, Canada.

1996/97- Expert opinions on heavy metal test by George Schwedt, PhD. Professor at the University of Clausthal, Germany, and by Joachim Leman, PhD. Scientist at the Institute for Toxicology and Medical Laboratory Diagnostics, Hirschberg, Germany.

Heavy Metal Test Examples

A) Urine Test



1st Titration
Color change : Dark Violet : Copper
Concentration : 8-10 ppm



2nd Titration :
Color change : Pink : Zinc
Concentration : 3-5 ppm

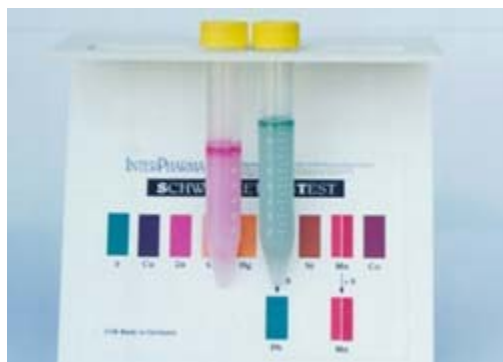


3rd Titration :
Color change : Pink
Concentration: 1-2ppm

Result: The urine contains a high concentration of free unbound copper and zinc ions.

Note: The test reagent only binds to the unbound or free radical producing metal ions.

B) Water Test



Left test-tube:
Color change: Pink: Zinc (3ppm)

Right test-tube: No color change. No metal present.

Excerpts from Expert Evaluations of Heavy Metal Test

[...] We thoroughly investigated the test system with regard to its sensitivity and its specificity and found consistent evidence that it is possible to detect individual toxicologically relevant metals in urine or water specimens in the range of a few ppm, at times even fractions of one ppm. This makes it possible to obtain on the spot clinically important preliminary data [...]

(J. Lemann, Dr. rer.nat., Toxicologist and Medical Expert, Institute for Toxicology and Medical Laboratory Diagnostics, Hirschberg, Germany)

[...] This report is intended to be an independent assessment of the claims of performance of a novel detection system for some transition metals. These materials are commonly known as toxic or heavy metals. [...] it was found that the system shows remarkable sensitivity for such a simple procedure [...]

(K.H. Bell, Ph.D., Professor and Head, Department of Chemistry, The University of Newcastle, NSW, Australia)

[...] Until the beginning of the nineteen-seventies this reagent was in predominant use for the detection of heavy metal traces in the water supply. It is a certified German Government Standard procedure for water supply analyses. [...]

(G. Schwedt, Dr. rer.nat., Professor and Director, Institute for Inorganic and Analytical Chemistry, Technical University of Clausthal, Germany)