
Biolab Medical Unit

9 Weymouth Street, London W1W 6DB, U.K. Tel: (+44) 020-7636 5959/5905 Fax: (+44) 020-7580-3910
E-mail: info@biolab.co.uk Internet: www.biolab.co.uk

Biomer Test

Indications

The Biomer test is a new chelation challenge test for heavy metal toxicity. "Biomer", a product of Biocare Ltd, is a mixture of N-acetyl cysteine, methyl sulphonyl methane (MSM) and magnesium succinate. This is a combination which has synergistic chelating activity together with enhanced cellular excretory activity for mercury and lead, as well as for other toxic metals.

Excess mercury, lead and other toxic metals may be tightly bound in the tissues and normally poorly excreted in the urine. The oral administration of this chelating mixture is used to draw metals out of the tissues, after which their levels in the urine can be quantitated. Results so far suggest that Biomer can be used as a chelating challenge test for mercury, lead and cadmium, and that it may also be useful for assessment of sequestered aluminium and nickel. So while this is primarily a challenge test for mercury overload, other toxic metals can also be usefully measured in the urine samples provided.

Patient preparation

The patient can eat and drink normally during this test, which is carried out at home. The patient must let Biolab know his or her weight before the kit is sent so that the correct dose of Biomer (50 mg per kg body weight) can be calculated. The patient should refrain from taking nutritional supplements or chelating agents for 72 hours before the test, but no other preparation is required.

Specimen requirements

The patient should provide three separate urine samples; the first one should be a random, mid stream urine sample collected at 11.00 am shortly before taking the Biomer capsules. The second urine sample should be collected 2 hours later at 1.00 pm and the third urine should be collect 3 hours after taking the capsules at 2.00 pm. It is important to adhere to this timing for the appropriate interpretation of the results to be made. The patient may drink and urinate in between these samples without the test results being affected.

The three urine samples should then sent to Biolab for analysis. Postal samples should be sent without delay.

Price: £65.00 for the Biomer test for mercury only. £15.00 extra for each additional metal analysis (i.e. £110.00 for mercury and lead analysed in three samples).

Methodology

Urine metals are measured by ICP-MS (inductively coupled plasma – mass spectrometry). The urine creatinine is measured by a colorimetric Jaffe method on each sample. In expressing the result the creatinine value is used to correct for the urine concentration. The increment in toxic metal output is expressed as the increase in the toxic metal:creatinine ratio over the course of the test.

Turn around time

1-2 working days.

Interpretation

The Biomer test should be looked at as a part of the diagnostic panel in the assessment of mercury and lead overload and not as a definitive answer. The practitioner will want to carry out other tests, including clinical examination, in the assessment of heavy metal overload.