Chromium and Cobalt, WB (MoM)

Chromium and cobalt analysis performed by inductively coupled plasma/mass spectrometry (ICP/MS).

Reference range is for patients with metal-on-metal (MoM) orthopedic implants.

The American Association of Hip and Knee Surgeons, the American Academy of Orthopaedic Surgeons, and The Hip Society, have published a consensus statement, "Risk Stratification Algorithm for Management of Patients with Metal-on-Metal Hip Arthroplasty." The algorithm is intended as an aid to orthopedic surgeons in the assessment and management of patients with Metal-on-Metal bearings.

The systematic risk stratification includes recommendations for multiple modes of failure and stratifies patient risk groups based on a thorough clinical history, a detailed physical examination, radiographic tests, and laboratory tests including measurement of metal ions (chromium and cobalt).

The following stratification applies to chromium or cobalt as individual analytes, not to the combined total.

Low Risk Group: <3.0 ng/mL
Moderate Risk Group: 3.0 - 10.0 ng/mL
High Risk Group: >10.0 ng/mL

Metal ion tests are an important adjunct to systemic clinical assessment; however, metal ion levels alone should not be relied on as the sole parameter to determine clinical recommendations for revision surgery.