

# Evaluation of Plasma Cell Dyscrasias

Serum EPP, Immunoglobulins, Immunofixation, and Free light chains: Monoclonal paraprotein detected.

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## Possible causes

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### Monoclonal Gammopathy of Unknown Significance

Found in 3% of people > 50 years; 5% in > 65 years  
Paraprotein present but less than myeloma levels  
Marrow plasmacytosis < 10%  
Little or no free light chain production  
No myeloma-related symptoms  
No lytic bone lesions  
May progress to myeloma over time

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### Multiple Myeloma

Higher paraprotein levels  
Marrow plasmacytosis > 10%  
Abnormal free light chain ratio  
Lytic bone lesions  
Myeloma-related symptoms: anaemia, hypercalcaemia, renal impairment

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### Waldenstroms Macroglobulinaemia/ Lymphoplasmacytic Lymphoma (LPL)

Found in 17% of patients with IgM paraprotein  
Higher paraprotein levels  
Lymphadenopathy/hepatosplenomegaly  
Related symptoms: cryoglobulinaemia/cold agglutinins, hyperviscosity, neuropathies, coagulopathy

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### Heavy Chain Disease

A group of rare diseases  
Heavy chain immunoglobulin only detected in serum and occasionally in urine  
Associated with lymphoproliferative disorders

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### Primary Amyloidosis

An abnormal free light chain ratio may be seen

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## Other definitive tests

Bone marrow examination  
Beta-2-microglobulin  
Skeletal X-ray