

Evaluation of an elevated Serum LD

(> 300 U/L)

Suggested scheme for evaluation of a high serum LD

Possible causes

Further investigations

Exclude

<i>In vitro</i> Haemolysis	High K ⁺ values and/or
delayed serum separation	High PO ₄ values
Elevated haemolysis index (HI)	

Serum LD > 4,000 U/L

Consider

Malignancy
Pernicious anaemia
(values for pernicious anaemia may exceed 9,000 U/L)

Serum LD < 4,000 U/L

Liver disease

LFTs

Hepatocellular
Cholecystitis

Cardiac disease

AST: Elevated
CK: Elevated

Infarction
Myocarditis
CCF
Metal Heart valve

Pulmonary disease

AST: Normal

Embolism
Pneumonia

Muscle disease

AST: Elevated
CK: Elevated

Injury
Severe exercise
Muscular dystrophies

Haematological

Blood examination
Serum Bilirubin
Serum Haptoglobin

Haemolysis (*in vivo*)
Megaloblastic anaemia
Leukaemia
Lymphoma

Malignancy

Clinical assessment

All malignancies
(25–80% have an elevated LD)

Infections

Clinical assessment

Viral
Bacterial
Glandular Fever

Autoimmune disorders

Clinical assessment
RF, anti CCP, ANA,
anti DS DNA

Rheumatoid arthritis
SLE
Dermatomyositis
Scleroderma
Sjögren's Syndrome
Vasculitis

Cause unclear

LD-isoenzyme evaluation
Macro LDH (LD electrophoresis)