

Possible causes of an elevated CK

Cardiac muscle

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Infarction

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Myopathy

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Myocarditis

Skeletal muscle

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Injury/Trauma

Crush, Surgery, IM injections, Ischaemia

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Alcohol

Acute/Chronic alcohol excess

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Drugs

Statins, Amphotericin B, Azathioprine, Chloroquine,
Clofibrate, Colchicine, Cyclosporin, Opioids, Steroids,
Vincristine, Verapamil, Proton Pump Inhibitors

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Infections

Influenza, Coxsackie A and B, Clostridia, *Streptococcus*
pyogenes, Parasitic infestations

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Endocrine

Hypothyroidism, Hyperthyroidism, Steroid myopathy

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Metabolic

Hypokalaemia, Vitamin D deficiency, Carnitine deficiency,
Carnitine Palmitoyl-transferase deficiency, Hypoparathyroidism,
Myophosphorylase deficiency, Mitochondrial disorders

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Autoimmune

Polymyositis, Dermatomyositis

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Exercise

Severe exertion, Marathon run, Convulsions, Paroxysmal
myoglobinuria

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Heat stroke

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Malignant hyperpyrexia

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Muscular dystrophy

Miscellaneous

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Macro-CK (request CK electrophoresis)

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Malignancy

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Cerebrovascular disease

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Diabetic ketoacidosis

Useful further tests

Troponin

Serum LD and AST

CK-Isoenzymes, CK electrophoresis

Autoimmune immunology

DNA tests for muscular dystrophy