

Possible causes of an elevated CK

Cardiac muscle

.....
Infarction

.....
Myopathy

.....
Myocarditis

Skeletal muscle

.....
Injury/Trauma

Crush, Surgery, IM injections, Ischaemia

.....
Alcohol

Acute/Chronic alcohol excess

.....
Drugs

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

.....
Infections

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

.....
Endocrine

Hypothyroidism, Hyperthyroidism, Steroid myopathy

.....
Metabolic

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

.....
Autoimmune

Polymyositis, Dermatomyositis

.....
Exercise

Severe exertion, Marathon run, Convulsions, Paroxysmal myoglobinuria

.....
Heat stroke

.....
Malignant hyperpyrexia

.....
Muscular dystrophy

Miscellaneous

.....
Macro-CK (request CK electrophoresis)

.....
Malignancy

.....
Cerebrovascular disease

.....
Diabetic ketoacidosis

Useful further tests

Troponin

Serum LD and AST

CK-Isoenzymes, CK electrophoresis

Autoimmune immunology

DNA tests for muscular dystrophy