Creatine Kinase (CK)	
Description	A marker of skeletal and cardiac muscle damage
Indication	Rhabdomyolysis, muscle disease (dystrophies, myopathies, myosites, malignant pyrexia), differential cause of a raised ALT, myocarditis, myocardial infarction,
Additional Info	Isoenzymes exist, MB, BB and MM
Concurrent Tests	Urine dipstick for Hb (Myoglobin), U&E, CK-MB Troponin T
Dietary Requirements	N/A
Interpretation	In normal adult, CK activity is almost entirely due to CK-MM isoform. Muscle damage will increase total CK with usually <6% being of CK-MB type. High activity with high CK-MB fraction is predominantly associated with myocardial damage.
	CK activity is greatest in skeletal muscle, 3 times that of cardiac muscle and brain. Elevated levels may occur after a fall (especially if immobile for lengthy period), after surgery, after physical exertion, grand mal seizures, in hypothyroidism, in DKA, renal failure and after intramuscular injections.
	Other causes of raised CK include drugs / toxins (statins, steroids, clofibrate, alcohol, CO poisoning); inflammation, McArdle's syndrome (during exercise), hypothermia and malignant hyperpyrexia.
	High sensitive troponin T is the marker of choice for differentiation of MI, acute coronary syndrome (ACS) and cardiac events – however CK is released from the myocardium and levels rise within 3-6 hours, peaking in 18- 24 hours and returning to normal by day 3. CK-MB is useful to detect re-infarct in patients with recent AMI as it has a shorter half-life than Troponin T.
Collection Conditions	N/A
Frequency of testing	As required