# picmonic

# Cardiac Enzyme Evaluation: Creatine Kinase CK-MB

Creatine kinase CK-MB is a cardiac enzyme that helps quantify myocardial damage. Elevations indicate myocardial injury or infarction. The onset of enzyme elevation is 4-8 hours, the peak is 12-24 hours, and the return to baseline is 48-72 hours.<br/>



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#### Measures

# Skeletal or Cardiac Muscle Injury

## Skeleton-muscle-man and Heart Muscle Injured

Creatine kinase enzymes occur in three isoenzymes found in various organs and tissues. Creatine kinase CK-MM are specific to skeletal muscle while creatine kinase CK-BB are specific to the brain and nervous tissue. Creatine kinase CK-MB is a cardiac enzyme used to measure skeletal muscle injury of the heart. Elevations of CK-MB indicate myocardial injury or infarction. The cardiac-specific isoenzyme is released during myocardial tissue injury and help quantify myocardial damage.

### **Time Ranges**

#### **Onset: 4-8 Hours**

On-switch with (4) Fork and (8) Ball

Serum levels of creatine kinase CK-MB begin to elevate 4-8 hours after the onset of chest pain.

#### Peak: 12-24 Hours

#### Peak of mountain with (12) Dozen and Open (24) Hour sign

Elevations of creatine kinase CK-MB levels peak after 12-24 hours after the onset of symptoms. Patients with a large myocardial infarction may experience a delay in peak levels since it takes a longer time to account for the myocardial damage.

#### **Return to Normal: 2-3 Days**

#### Return to Ground with (2) Tutu and (3) Tree Day-calendar

Creatine kinase CK-MB levels return to baseline within 48-72 hours after the initial myocardial injury. Large myocardial infarctions may cause a delay in a return to baseline. Patients who are quickly and successfully treated for a myocardial infarction will have their creatine kinase CK-MB levels return to baseline more quickly.