



# Amylase

Accredited to  
ISO 15189:2022

## Synonyms

AMY

## Clinical Indication

The enzyme amylase is present in pancreas and salivary glands and its measurement is invaluable in management of the acute abdomen. Clearly elevated levels (>900 IU/L) are virtually diagnostic of acute pancreatitis. Serum concentration begins to rise within 2-12 hours of the onset of symptoms with a peak at 24 hours and remains elevated for 3-7 days.

Amylase is cleared by renal excretion and persistent elevated levels may be seen in macroamylasaemia, a rare and benign condition, due to complexing of amylase with immunoglobulin.

## Part of Profile / See Also

## Request Form

Combined Pathology manual Blood form or ICE request

## Availability / Frequency of Analysis

On request. May be requested urgently.

## Turnaround Time

Same day

## Patient Preparation

None required

## Sample Requirements

### Specimen Type

Serum and plasma

### Volume

2 ml

### Container



Yellow top (SST) tube



Or paediatric green top (lithium-heparin)

Plain serum samples may also be used.

**Do not take blood into EDTA tube as this inhibits amylase activity and will give a falsely low result. Only serum or heparinised plasma samples are suitable.**

## Reference Range & Units

28 - 100 IU/L.

Critical phoning limit: >500 IU/L

A significant proportion of subjects of African and Asian origin have a salivary amylase activity above the reference interval which can result in an apparently elevated total amylase that is non-pathological.

## Interferences

Blood taken in an EDTA tube inhibits amylase activity and will give a falsely low result.

## Interpretation & Clinical

Critical Difference 30%

**Decision Value (if applicable)**

A marked rise in serum amylase occurs in 95 percent of patients with acute pancreatitis within 2-12 hours of onset. The highest serum activity is present 12-72 hours after the onset and usually returns to normal in 4-8 days. Acute non-pancreatic conditions, which may also elevate amylase levels, include acute parotitis, peritonitis, small intestine obstruction, perforated peptic ulcer, rupture of a tubal pregnancy, contraction of the sphincter of Oddi following morphine administration, and mesenteric thrombosis.

A decreased serum amylase activity is highly specific for exocrine pancreatic insufficiency.

**References**

Beckman

Association for Clinical Biochemistry Analyte Monograph - Amylase (2012)

**Test code**

AMY

**Lab Handling**

Analysed from primary tube and stored at 4°C  
Serum and plasma stable at 2-8°C 7 days.