

# Acute pancreatitis (diagnostic tests)

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thumb|Akutní pankreatitida, patogenetické sekvence **Acute pancreatitis** (AP) is a disease with variable clinical manifestations. The various prognostic criteria include early diagnosis, disease severity and monitoring the course of the disease.

Two stages of severe cases of AP are differentiated:

- The first stage is extensive inflammation of the pancreas, possibly necrotizing, with the subsequent development of systemic inflammatory response syndrome - SIRS which can lead to multiple organ dysfunction syndrome - MODS with symptoms and complications similar to polytrauma, sepsis and burns.
- The next stage is marked by necrosis (often caused by bacterial infection) and by worsening of systemic complications, renal failure, coagulation disorders and other.

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## Diagnostic tests

thumb|Rutinní dg stanovení pankreatických enzymů Diagnostic tests include assessment of a wide range of specific and non-specific markers, pancreatic enzymes and their precursors in serum or urine, inflammatory markers and markers of immune responses - cytokinesgg, interleukins, TNF.

Total serum amylase is most commonly used for diagnosis, it is usually elevated with the onset of AP and returns to normal within 3-5 days. Levels of  $\alpha$ -amylase is always elevated in 100 % of the cases of AP, but it is also elevated in 80 % of the cases of abdominal pains.

Assesment of **pancreatic isoenzyme** (P-type of  $\alpha$ -amylase = P-AMS) in serum is more beneficial for diagnosis, because it is also elevated in 100 % of the cases of AP, but only in 10 % of abdominal pains. Lipase and pancreatic elastase-1 are also reliable markers.

Assessment of activation peptides **TAP a CAPAP** levels in urine are most commonly used as reliable markers for fast diagnosis. Serum procalcitonin levels are studied in the last few years as markers for bacterial infection of pancreatic necrosis and sepsis.

## Links

### Related articles

- Acute pancreatitis
- Chronic pancreatitis
- Chronic pancreatitis (diagnostic tests)

### Sources

- with the permission of the author taken from KOCNA, Petr. *GastroLab : MiniEncyklopédie laboratorních metod v gastroenterologii* [online]. ©2002. The last revision 2011-01-08, [cit. 2011-03-04]. <<http://www1.lf1.cuni.cz/~kocna/glab/glency1.htm>>.

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