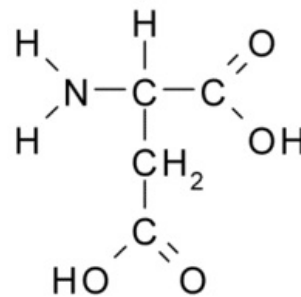


# Aspartic acid

Aspartic acid (Asp, D) is a biogenic amino acid occurring in the body as its conjugate base, which is called aspartate.

## Metabolism of aspartic acid

The most important reactions of aspartate include **transamination** together with oxaloacetate. The enzyme **aspartate aminotransferase** (AST, formerly known as glutamate-oxaloacetate transaminase, GOT), which catalyzes this transamination, occurs both in the cytoplasm and in the mitochondria. The cofactor of the reaction is pyridoxal phosphate. The determination of this enzyme is mainly used in medicine to diagnose liver damage together with alanine aminotransferase (ALT). An increase in this enzyme is common in liver disease, myocardial infarction, CAD and also in muscle damage. AST is released only when the hepatocyte is more damaged. The release of the mitochondrial fraction only occurs during necrosis.



Aspartic acid

Aspartate participates in the formation of urea when it reacts with citrulline to form arginine succinate. Asparagine is hydrolyzed to aspartate by asparaginase.

Decarboxylation of aspartate produces **β-alanine**, which is a component of pantothenic acid. Beta-alanine is also produced during the degradation of pyrimidines - uracil and cytosine.

## Links

### related articles

- Amino acids

## References

- ws:Kyselina asparagová
- MATOUŠ, Bohuslav. *Základy lékařské chemie a biochemie*. 2010. edition. Galen, 2010. 0 pp. ISBN 978-80-7262-702-8.