

Glucose-alanine cycle

Alanine, on the one hand, participates in the **transfer of ammonia** through the blood, and on the other hand, through pyruvate, serves as an important **source of carbon** for the process of gluconeogenesis.

See *Glucose Breakdown and Synthesis* for more detailed information.

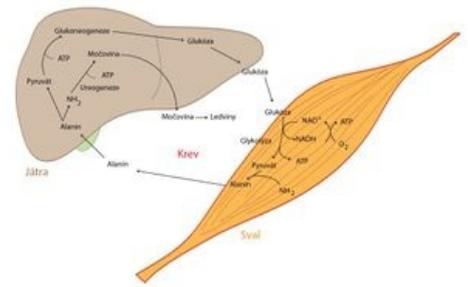
The glucose-alanine cycle is an interorgan metabolic pathway occurring between **muscle cells** and the **liver**.

After **pyruvate** is formed in muscle cells, it undergoes transamination to form **alanine**.

It is released into the blood, which transports it to the liver, where it is converted back into **pyruvate** by transamination, which can be involved in the process of **gluconeogenesis**.

The resulting **glucose enters the muscles through** the blood and the whole cycle is closed.

The transferred **amino group** (ammonia) goes **to the urea cycle**.



The glucose-alanine cycle