

# THE DIFFERENT METABOLIC PATHWAYS OF ETHYL ALCOHOL IN THE TISSUES

## Summary

Ethyl alcohol after drinking is absorbed in alimentary tract and by blood flow goes over to the liver, the main place of its metabolic conversions. However, the potential to its oxidation exhibit all the organism's tissues. There are four pathways of biochemical conversions of ethyl alcohol: (1) oxidation to acetaldehyde by the enzyme alcohol dehydrogenase, and then to acetic acid by the enzyme acetaldehyde dehydrogenase; (2) MEOS pathway, microsomal ethanol oxidizing system, involving microsomal P-450 cytochrom, particularly active during

long time drinking; (3) catalase pathway activated by  $H_2O_2$ ; (4) nonoxidative pathways, for example coupling through esterification with sulphur acid, glucuronic acid or free fatty acids. The first and second pathways are the most important, because they are faster and more productive, and yield acetaldehyde as the first metabolic product. The rate of alcohol turnover depends on whether drinking is of chronic or sporadic character, and on the volume and concentration of consumed drinks.