

# Hydrogen peroxide

Hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) is a clear liquid, slightly more viscous than water. Its 3% solution is used as disinfection. In higher concentrations, it has bleaching effects, which are used in hair bleaching. It is used as an oxidizing agent in the laboratory and industry.

## Use of 3% hydrogen peroxide solution

For rinsing and disinfecting skin wounds and defects, for rinsing oral cavity for inflammations and infections in the oral cavity and pharynx – as a deodorant, oxidizing antiseptic, or gargle . The solution is used undiluted for direct application to the affected areas of the skin or in the mouth. On skin wounds and ulcers, the solution is applied in sufficient quantity so that the treated area is completely wet. In the treatment of inflammations and infections in the oral cavity and pharynx, the oral cavity is rinsed with the solution or the solution is gargled. The solution is then spit out.<sup>[1]</sup>

## Pharmacodynamics

Hydrogen peroxide is a substrate for catalases and peroxidases. Thanks to their activity, a number of organic substances are oxidized, which is also responsible for the microbicidal effect. In vivo, hydrogen peroxide is also a substrate of myeloperoxidase, which oxidizes chloride anions to form hypochlorite anion - one of the microbicidal substances of phages.

## Contraindications

Mass-produced medicinal products with hydrogen peroxide tend to be stabilized with benzoic acid, to which some people may be hypersensitive.

## Links

### References

1. Summary of product. Hydrogen peroxide 3% COO. 2014. Also available from URL <<https://www.sukl.cz/modules/medication/download.php?file=SPC69553.pdf&type=spc&as=peroxid-vodiku-3-coo-spc>>.