



## 16. HISTORICAL REFLECTIONS ON DRINKING WATER: HYGIENIC AND SOCIAL SIGNIFICANCE

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**Introduction.** Drinking water has always been a vital resource for the survival and development of human societies. Historically, access to clean water has significantly influenced the health, culture, and social structures of communities.

**Aim of study.** The study aims to explore how hygienic practices and social perceptions related to drinking water have historically changed, as well as the impact of these changes on public health and social structures.

**Methods and materials.** The analysis is based on an extensive review of historical documents and socio-cultural studies. The methods include comparative analysis of water treatment practices from different cultures and eras, and the evaluation of their impact on health and social organization.

**Results.** The study highlighted a varied evolution in drinking water hygiene. Initially, prehistoric purification relied on simple sedimentation and sand or gravel filtration, removing visible impurities but not microorganisms. Ancient civilizations like Egypt and Rome advanced these methods. Egyptians settled particles from the Nile in cisterns, while Romans used aqueducts and lead or stone filters. Yet, lacking microbial knowledge, these techniques were limited in disease prevention. In the Middle Ages, water purification saw little progress. Boiling became common, recognized for killing certain pathogens despite a lack of understanding of microorganisms. The Renaissance era, however, marked significant advancements. Distillation techniques improved for purer water, influenced by early microbial studies. The industrial period brought breakthroughs. The early 20th century's introduction of chlorination revolutionized water hygiene. John Snow's 19th-century work in London, linking water quality to cholera, spurred filtration and purification system development. Rapid sand filtration and widespread chlorination significantly cut waterborne disease rates. The 20th century's growing grasp of microorganisms and chemical pollutants led to stricter hygiene standards. Techniques like reverse osmosis, effective in removing salts and contaminants, emerged. Activated carbon filtration became prevalent for chlorine and organic substance removal. This evolution profoundly influenced public health, drastically reducing water-related diseases like cholera and typhoid fever, especially in areas with purified water access. Technological advances also improved drinking water availability in resource-limited regions, enhancing health standards and life quality.

**Conclusion.** The study emphasizes that the hygiene of drinking water is a key factor in human health and development. The evolution of purification methods reflects technological progress and awareness of health risks, being essential in disease prevention and life quality improvement.