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FROM THE HISTORY OF WATER DISINFECTION

Humans have been storing and distributing water for centuries. Before, when people lived as hunters/gatherers river and lake water was applied for drinking purposes. People used groundwater for drinking where there were no rivers or lakes in an area. This was pumped up through wells.

In ancient Greece spring water, well water, and rainwater were used since early. Because of a fast increase in urban population Greece was forced to store water in wells and transport it to the people through a distribution network. The water used was carried away through sewers along with the rainwater. When valleys were reached, the water was lead through hills under pressure. Before the system of canalization was developed urban citizens often throw the wastes away directly on the pavement.

The link between water quality and health has been known since early ages. Ancient Greeks were among the first to gain an interest in water quality. They used aeration basins for water purification. Clear water was considered clean water. Swamp areas were associated with fever. Two basic rules dating back to 2000 B.C. state that water must be exposed to sunlight and filtered with charcoal. Impure water must be purified by boiling and then dipping a piece of copper in the water seven times before filtering the water. Descriptions of ancient civilizations were found telling us about boiling water and water storage in silver jugs. For water purification, copper, silver and electrolysis were applied.

For the past centuries humans have much suffered from diseases such as cholera and plague, and the origin of these diseases was misinterpreted, they were not considered water borne diseases.

In the nineteenth century the effect of disinfectants, such as chlorine, was discovered. Application of chlorine a chemical element for water disinfection? is usually effective against bacteria, viruses, protozoa greatly contributed to extension of life span. As chlorine remains in the system of water supply after initial treatment it continues to fight against water pollution. As alternative disinfection ozone, chloramine and ultraviolet can be used.

Filtration of drinking water plus the use of chlorine is probably the most significant achievement of medicine through thousand years.