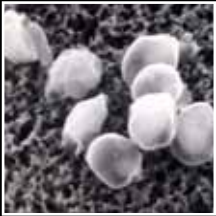


OVERVIEW OF PATHOGENS AND DISEASES

DIFFERENT COUNTRIES, DIFFERENT RISKS

Every country and continent has to deal with various pathogens in the drinking water. The world maps provide an overview of the distribution of the various diseases resulting from these pathogens.

Three groups of pathogenic microorganisms can be present in drinking water:



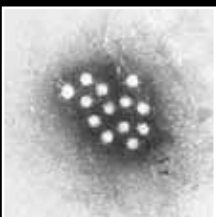
PROTOZOA (AMOEBAE, GIARDIA, LAMBLIA, CRYPTOSPORIDIA)

- Animal single-cell organisms, which like bacteria get into drinking water through animal and human feces
- These hard-shelled parasites form cysts, which lead to acute gastro-intestinal diseases in humans
- Common in unfiltered surface water. Have also been found in drinking water (Milwaukee, London, Sydney)
- A single cell is all it takes for an infection



BACTERIA (E-COLI, SALMONELLA, CHOLERA)

- Single-cell organism 0.2 - 5 microns in size
- Propagate quickly in warm environments and particular in water, depending on the supply of nutrients
- Become dangerous if they are mixed together with human and animal feces in the drinking water



VIRUSES (HEPATITIS A, NORWALK VIRUS, ROTA VIRUS, POLIO VIRUS)

- Tiny parasites 0.02 - 0.2 microns
- Can only propagate in living cells since they do not possess their own metabolism
- Animal single-celled organisms, which like bacteria get into drinking water through animal and human feces
- Near populated areas, where wastewater can get into the drinking water

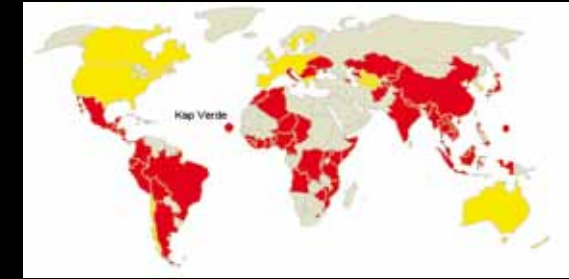
AMOEBAE

- High risk
- Moderate risk



CHOLERA

- Endemic regions
- Imported isolated cases



GIARDIA

- High risk



HEPATITIS A

- High risk
- Moderate risk
- Low risk



TYPHOID FEVER (SALMONELLA)

- Endemic or hyperendemic form
- Endemoepidemic form
- Sporadic or regionally occurring form

