M.A.D.® protection against waterborne pathogens

The Mechanically Advanced Disinfection (M.A.D.[®]) technology in Pure Hydration's water purification systems can help to protect you against a broad spectrum of disease causing contaminants that may be found in water used for drinking. The following examples include a number of the principal causes of such as travellers' diarrhoea, together with potentially more serious diseases.

Causative pathogen	Disease (incl. where travellers' diarrhoea is a symptom)
BACTERIA	Note that additional complications may occur
Campylobacter jejuni	Campylobacteriosis, travellers' diarrhoea.
 Escherichia coli (E. coli). There are 6 pathotypes which cause TD: Shiga toxin-producing E. coli (STEC) also referred to as Verocytotoxin-producing E. coli (VTEC) or enterohemorrhagic E. coli (EHEC). Enterotoxigenic E. coli (ETEC) Enteropathogenic E. coli (EPEC) Enteroaggregative E. coli (EAEC) Enteroinvasive E. coli (EIEC) Diffusely adherent E. coli (DAEC) 	Travellers' diarrhoea.
Salmonella enterica spp.	Non-typhoidal Salmonellosis, travellers' diarrhoea.
Salmonella enterica serotypes Typhi and Paratyphi (A-C)	Typhoid & Paratyphoid Fever.
Shigella spp. Shigella sonnei Shigella flexneri Shigella boydii Shigella dysenteriae	Shigellosis, travellers' diarrhoea.
Vibrio cholera	Cholera.
VIRUSES	
Hepatitis A	Hepatitis A.
Hepatitis E	Hepatitis E.
Norovirus (Norwalk)	Travellers' diarrhoea.
Poliovirus	Poliomyelitis (Polio).
PARASITIC PROTOZOA	
Cryptosporidium parvum	Cryptosporidiosis, travellers' diarrhoea.
Cyclospora cayetanensis	Cyclosporiasis, travellers' diarrhoea.

PARASITIC PROTOZOA continued	
Entamoeba histolytica	Amoebiasis (including amoebic dysentery), travellers' diarrhoea.
Giardia intestinalis (also referred to as Giardia lamblia and Giardia duodenalis)	Giardiasis, travellers' diarrhoea.
HELMINTHS	
Ascaris lumbricoides nematode (roundworm)	Ascariasis
<i>Cyclops</i> copepod which is the intermediate host of the nematode (roundworm) <i>Dracunculus medinensis</i> (Guinea worm)	Dracunculiasis (Guinea worm disease)
Echinococcus cestode (tapeworm)	
Echinococcus granulosus	Cystic echinococcosis (CE - Hydatid disease)
Echinococcus multilocularis	Alveolar echinococcosis (AE)
<i>Taenia solium</i> cestode (tapeworm) eggs (which develop into larvae in human tissues)	Cysticercosis (incl. neurocysticercosis)

This list is for indicative purposes only, and is not exclusive. There are a number of additional pathogens that may cause infection from drinking contaminated water. Mechanically Advanced Disinfection (M.A.D.[®]) technology works to reduce all bacteria, viruses and parasitic protozoa (cysts) to levels that meet and exceed international standards for individual water purification products (see separate summary of independent testing results for performance), keeping you safe wherever you source your drinking water.*

Mechanically Advanced Disinfection (M.A.D.[®]) technology can also provide protection against heavy metals, pesticides, and volatile organic chemicals (VOCs) in drinking water (see separate summary of independent testing results for performance).



*Not for use with salt-water including sea water and brackish water sources.