

BIOLOGICALLY PURE WATER

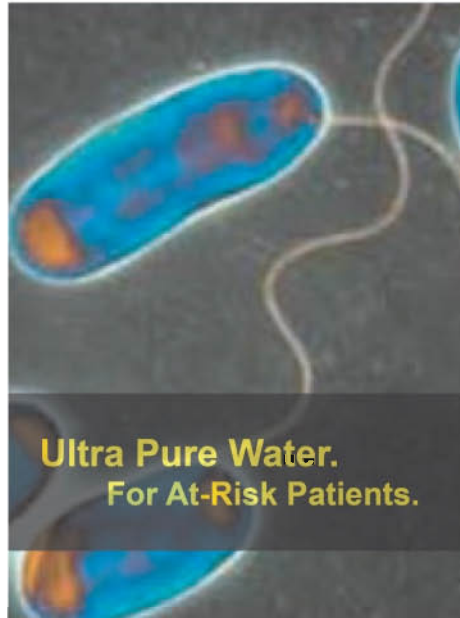
Benefit from the Nephros Dual Stage Ultra-filter. Safe, simple and reliable water filtration removes waterborne bacteria, viruses, fungi, cysts and endotoxins from water.

REDUCE RISKS FOR DIALYSIS PATIENTS

In most dialysis clinics dialysate is only required to meet the requirements of ANSI/AAMI RD52 (Association for Advancement of Medical Instrumentation) and therefore may have bacteria concentration as high as 200 CFU/ml and endotoxin concentrations as high as 2 EU/ml.

The Nephros Dual Stage Ultra Filter (DSU) eliminates this concern and provides ultrapure water for dialysate with bacteria concentrations of less than 10^{-6} CFU/ml and endotoxin concentrations at less than 0.03 EU/ml as specified in AAMI RD52.

Ultra Pure Water free of endotoxins and bacteria for Dialysis Center Applications



Nephros is a pioneer in novel mid-dilution and online hemodiafiltration therapy for End Stage Renal Disease (ESRD) patients. Based on its patented dual stage design, Nephros has developed a medical device version of the Nephros Dual Stage Ultra Filter (DSU) for dialysis center applications.

The Nephros Dual Stage Ultra Filter produces ultrapure water which can be used in the dialysis chain of water production as well as for various dialysis modalities.

Ultrapure water is a basic prerequisite of renal replacement modalities and is crucial to the production of dialysate. To ensure a consistent production of high-grade quality water, the DSU is a necessary addition to optimizing the design of the water purification system.

The DSU rids water of microbial contaminants

Microbial contamination of dialysate can originate from the water treatment system, the water distribution loop, the dialysate concentrates, or the dialysate proportioning system of the dialysis machine itself. The Nephros DSU addresses potential dialysate contamination at crucial points of the water treatment system: after the reverse osmosis module and at the dialysis machine entrance from the water distribution loop.

The DSU filter also removes endotoxin contamination. Endotoxins in water and dialysate result from the presence of water-borne bacteria and are fragments of Gram-negative bacteria.

Water standards become stricter

Europe has revised their standards for bacteria and endotoxin limits. The limits for water as defined by the International Standards Organization, ISO 13959, are 100 CFU/ml with a 50 CFU/ml action level, and 0.25 EU/ml with a 0.125 EU/ml action level. In the USA, representatives on the ISO committee and AAMI are considering adopting the ISO guidelines. With bacteria/endotoxin limits becoming stricter, the DSU filter becomes a perfect addition to water quality control in a dialysis center environment.

ABOUT NEPHROS, INC.

Nephros, Inc. headquartered in River Edge, New Jersey, is a medical device company developing and marketing products designed to improve the quality of life of patients and the general public.

Nephros has developed Mid-Dilution Hemodiafiltration, a unique renal replacement system offering optimized removal of renal toxins. Aimed at improving the quality of life for End-Stage Renal Disease (ESRD) patients, it also addresses the critical financial and clinical needs of the care provider.

Nephros also markets a line of water filtration products, the Dual Stage Ultra-filter (DSU) that produces biologically safe water. The Company's patented dual stage cold sterilization Ultra-filter has the capability to filter out bacteria, viruses, and parasites, and a range of other biotoxins.



Biofilm complications mitigated

Bacteria present in biofilm are highly resistant against cleaning and disinfection procedures and are virtually impossible to eradicate. Continuous release of bacterial components into the water used for dialysate may contribute to the production of proinflammatory cytokines and therefore to a chronic inflammatory state in hemodialysis patients.

To preserve the biologic quality of treated water, the DSU filter can be used to "polish" the post-treated water.

The DSU assists in providing hemodialysis quality water by removing biological contaminants when used in conjunction with other water treatment equipment, such as reverse osmosis and deionization systems.

The Nephros DSU membrane filters particles down to a 5 nanometers.

The DSU filter can be used as the last component in the water purification process before going out to the dialysis stations to ensure ultra pure water for dialysis. In the overall perspective of improving dialysis water quality, regular use of Nephros Dual Stage Ultra Filter is an affordable safety factor when utilized with modern water treatment systems and optimally designed hemodialysis proportioning machines.

Product Benefits

- Fast, simple installation
- Attaches to quick connect fittings (CPC)
- Designed to securely attach to pin-mount bracket systems
- Filter membrane provides up to 1 year of performance life in frequent use

Product Summary

- Removes bacteria, fungi, viruses, parasites, and endotoxins
- Attains and maintains high flow rates
- Provides proven durability combined with the safety and reliability of true redundant ultrafiltration

Ultrapure Water



Free from bacteria and endotoxins.