Baxter

INNOVATIVE CARE FOR EVERY DIALYSIS PATIENT

ADVANCED MEMBRANE DESIGNS SUPPORTING ALL HEMODIALYSIS THERAPY OPTIONS

PIONEERS & INNOVATORS IN RENAL CARE

HELPING SAVE AND SUSTAIN LIVES

At Baxter, our mission is to save and sustain lives. We believe we can achieve this by providing healthcare professionals with an innovative portfolio of dialyzers that empowers them to deliver the right therapy, for the right patient.

As the pioneering innovator in dialyzer technology, we have developed a unique expertise in membrane design in relation to toxin removal by dialysis. Each of our dialyzers has a unique membrane that has been designed for the needs of a specific therapy and patient population while delivering safe and effective removal of a wide range of uremic solutes.

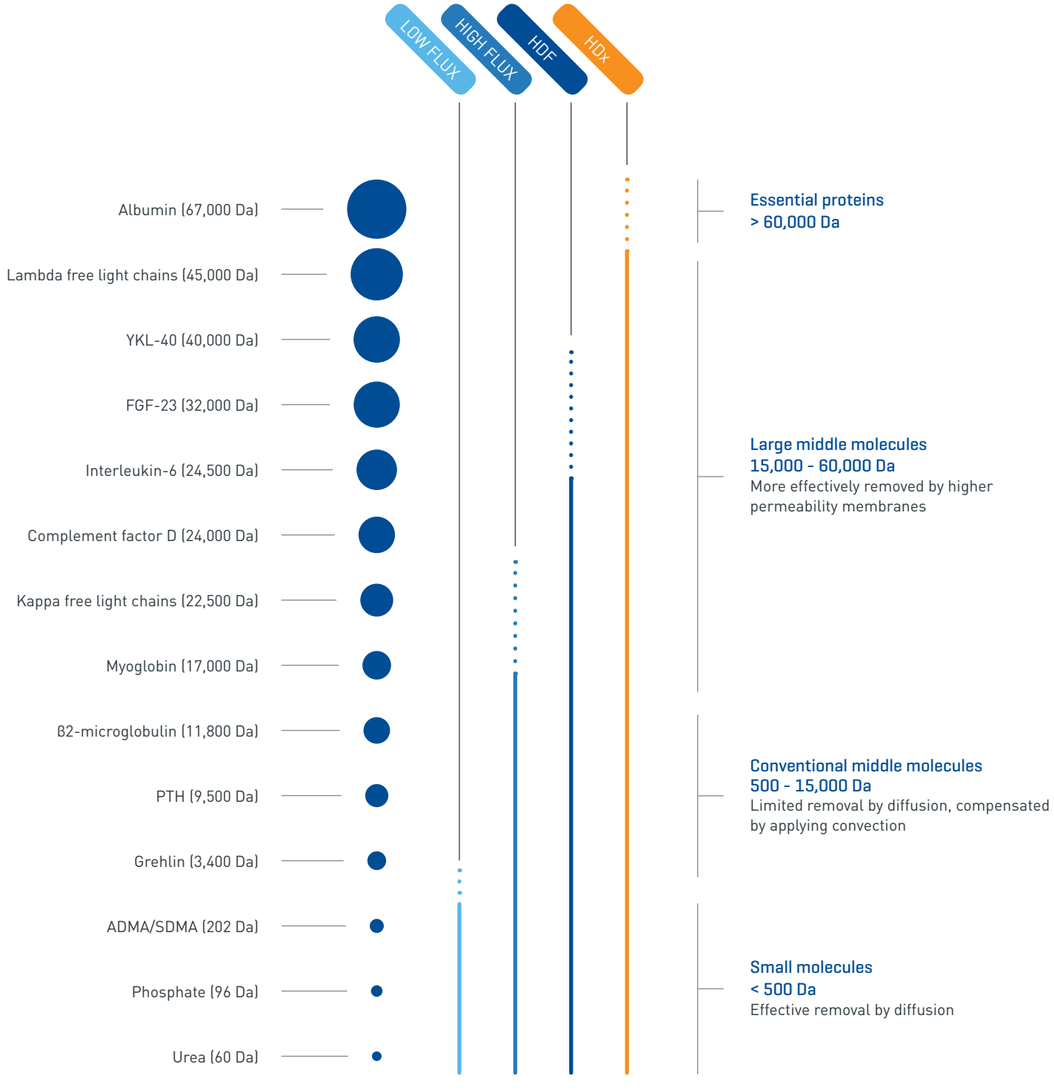
THERAPY INNOVATIONS DRIVEN BY MEMBRANE DESIGN

Dialysis therapies have progressed through time, primarily along dialyzer membrane innovations and advancements.

Dialyzer membrane design is defined by both its physical and chemical structure. A dialyzer membrane's capability to remove molecules depends on these structures and the therapy, or form of fluid transport mechanism, being performed.

However, for both diffusive and convective therapies, the membrane's effective pore size distribution determines the molecular weight of the uremic toxins that can be removed safely and efficiently.

Today, a range of therapies and specific dialyzers are available to address dialysis patients' personal needs for safe and effective uremic toxin removal.



Classification of uremic solutes by molecular weight (Daltons)[1,2]

A PORTFOLIO OF DIALYZERS TO MEET INDIVIDUAL NEEDS

Our technological advances in membrane design and our deep understanding of each renal therapy has allowed us to create a portfolio of advanced dialyzers. Each dialyzer brand is unique in the way it meets the requirements of renal therapies performance, but it benefits from Baxter's tradition and expertise in performance, quality and simplicity.

LFHD
LOW FLUX HD

THE PROVEN BALANCE OF QUALITY AND PERFORMANCE IN LOW-FLUX

DESIGNED FOR
LOW FLUX HD

Polyflux L

The **Polyflux** L dialyzer series is specialized for low-flux hemodialysis treatments, featuring a distinctive membrane acting as an effective barrier to potential fluid contaminants, while still delivering high performance.[3] **Polyflux** L dialyzers are a good choice for proven biocompatible yet effective low-flux therapies, designed with safety in mind.

HFHD
HIGH FLUX HD

OPTIMIZING HIGH FLUX PERFORMANCE

DESIGNED FOR
HIGH FLUX HD

Revaclear

The **Revaclear** dialyzer series is a range of high efficiency high-flux dialyzers designed to enhance safety and biocompatibility for your patients, while optimizing clearance with a smaller surface area.[4]

HDF-HF
CONVECTIVE THERAPIES

FOR EFFECTIVE CONVECTIVE THERAPIES

DESIGNED FOR
CONVECTIVE THERAPIES

Polyflux H

The **Polyflux** H dialyzer series deliver proven biocompatibility[5] and endotoxin retention[3] with consistent performance.
The **Polyflux** H dialyzers effectively support the delivery of high-volume convective therapies,[6] while helping control the loss of essential proteins such as albumin,[7] particularly challenging at high flows and TMPs.

HDx
EXPANDED HEMODIALYSIS

HDF PERFORMANCE AND BEYOND, AS SIMPLE AS HD*

DESIGNED FOR
EXPANDED HEMODIALYSIS

Theranova

The HDx therapy is enabled by the **Theranova*** dialyzer series, featuring an innovative membrane design that combines a higher permeability than regular high-flux dialyzers with effective selectivity for large proteins.[8,9]

SPECIAL
THERAPEUTIC APPLICATIONS

Polyflux 2H/6H

SPECIALIZED FOR LOW BODY WEIGHT PATIENTS

The **Polyflux** 2H/6H dialyzer series enables high flux dialysis compatibility and performance to low body weight patients, typically children.[5,10,11]

Nephral ST

SPECIALIZED FOR HIGH BIO-COMPATIBILITY AND ADSORPTION

The **Nephral** ST dialyzer series features a heparin adsorptive hydrogel membrane, for a reduced use of systemic heparin during dialysis. The membrane is designed to provide effective removal of uremic toxins and inflammatory mediators by adsorption.[12]

Evodial

SPECIALIZED FOR HIGH BLEEDING RISK PATIENTS

The **Evodial**** dialyzer series is specialized for patients with a high risk of bleeding.[13,14] It has been designed with the **HeprAN** heparin grafted membrane,[12,15] and provides a convenient solution for patients requiring reduced or even heparin-free dialysis.[13]

Theralite

SPECIALIZED FOR MULTIPLE MYELOMA PATIENTS

The **Theralite***** dialyzer, featuring the proprietary High Cut-Off (HCO) membrane, targets the removal of free light chain (FLC) proteins when needed in patients with multiple myeloma cast nephropathy experiencing renal failure.[16,17]

* Do not use **Theranova** dialyzers in HDF or HF mode
** Do not use **Evodial** in patients with a known allergy to heparin or type II thrombocytopenia caused by heparin (hit syndrome type II)

*** Do not use **Theralite** dialyzers in HDF or HF mode
*** **Theralite** dialyzers must not be used for pediatric dialysis and for regular treatment of chronic renal failure
*** CAUTION! **Theralite** dialyzers must only be used on the direction of a physician who has evaluated all the pertinent features of this device in relation to the individual patient

ENSURING YOU HAVE THE TOOLS, TRAINING AND SUPPORT YOU NEED

Baxter has been a full-service provider for more than 60 years and we remain committed to helping you achieve the best outcomes possible for both home and in-center dialysis.

TRAINING:

To help ensure that everyone in your clinic understands their preferred dialyzer and the benefits it delivers, we provide you with*:

- Technical and product training
- Therapy training
- Scientific and research partnership
- Tailored in-service planning

SUPPORT:

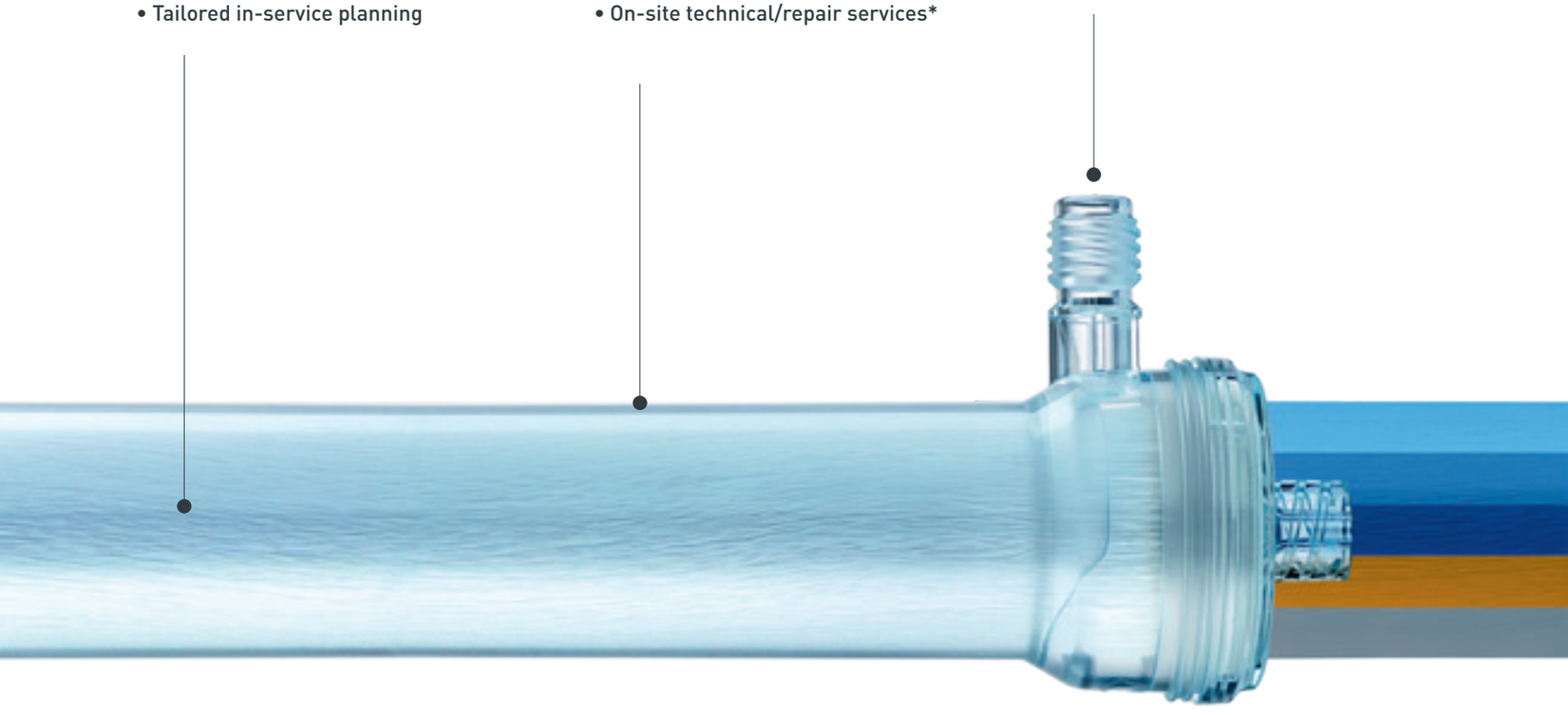
In addition to our local and expert sales and clinical teams, Baxter offers direct support at all times:

- Technical support (call-in)
- Renal Clinical Helpline – offering real-time support during business hours
- On-site technical/repair services*

DELIVERY:

We have the capabilities of supporting your dialysis unit through our strong global supply chain, local distributors and delivery network*:

- Customer service (order support)
- Direct deliveries



* Contact your local Baxter representative for regional availability

REFERENCES

1. Wolley M et al. *Exploring the Clinical Relevance of Providing Increased Removal of Large Middle Molecules*. Clin J Am Soc Nephrol 2018;13:805-814.
2. Vanholder R et al. *Biochemical and Clinical Impact of Organic Uremic Retention Solutes: A Comprehensive Update*. Toxins 2018;10,33 (doi:10.3390/toxins10010033).
3. Schepers E, Glorieux G, Eloot S, et al. *Assessment of the association between increasing membrane pore size and endotoxin permeability using a novel experimental dialysis simulation set-up*. BMC Nephrology. 2018; 19:1.
4. Baxter. *REVACLEAR White Paper*. USMP/MG3/140052, May 2013.
5. Ronco C, et al. *Evolution of synthetic membranes for blood purification: the case of the Polyflux family*. Nephrol Dial Transplant 2003;18(Suppl 7):vii10–20.
6. Maduell F, et al. *High-efficiency postdilution online hemodiafiltration reduces all-cause mortality in hemodialysis patients*. J Am Soc Nephrol. 2013;24:487-497
7. Potier J et al. *High-efficiency postdilution online hemodiafiltration reduces all-cause mortality in hemodialysis patients*. Int J Artif Org 2016;39:460-70.
8. Boschetti-de-Fierro A, et al. *MCO membranes: Enhanced Selectivity in High-Flux Class*. Scientific Reports 2015; 5:18448.
9. Zweigart C, et al. *Medium cut-off membranes – closer to the natural kidney removal function*. Int J Artif Organs 2017; 40(7):328-334.
10. Goldstein SL, et al. *Polyflux® 6H dialyzer: a new option for small children requiring dialysis*. Int J Artif Organs 2007; 30:321–324.
11. Warady BA, et al. *Pediatric Dialysis. Chapter 19. Maintenance hemodialysis during infancy*. 2012. Edited by Ulinski T, Cochat P
12. Thomas M, et al. *AN69: Evolution of the world's first high permeability membrane AN69: Evolution of the world's first high permeability membrane*. Contrib Nephrol 2011; 173:119–129.
13. Laville M, et al. *Results of the HepZero study*. Kidney Int 2014; 86:1260–1267.
14. Kessler M, et al. *Anticoagulation in chronic hemodialysis: progress toward an optimal approach*. Semin Dial 2015; 28:474–489.
15. Chanard J, et al. *The clinical evaluation of low-dose heparin in haemodialysis: a prospective study using the heparin-coated AN69 ST membrane*. Nephrol Dial Transplant 2008; 23:2003–2009.
16. Boschetti-de-Fierro A, et al. *Extended characterization of a new class of membranes for blood purification: the high cut-off membranes*. Int J Artif Organs 2013; 36:455–463.
17. Hutchison CA, et al. *The pathogenesis and diagnosis of acute kidney injury in multiple myeloma*. Nat Rev Nephrol 2012; 8:43–51.

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