**AIT** (Autologous Infusion Technology) is especially well- suited for nephrology, as it directly addresses the two primary stressors on kidney health: toxic burden and hypoxia (oxygen deficiency). The kidneys are critical for filtering blood, regulating fluid and electrolyte balance, managing pH, and excreting waste—functions that depend heavily on oxygen-rich circulation and minimal toxic overload.

#### **1.** Enhances Renal Oxygenation

The kidneys receive nearly 25% of cardiac output yet are extremely sensitive to hypoxia. Low oxygen levels damage nephrons and accelerate renal decline.

IDOT increases oxygen delivery to kidney tissues via hyper-oxygenated fluids or blood infusions, restoring oxygen-dependent filtration and repair processes. This supports the function of glomeruli and tubules, slowing or reversing damage from ischemia or oxidative stress.

#### 2. Deep Detoxification Without Kidney Strain

Traditional detox relies heavily on kidney clearance, which can overburden compromised kidneys.

IDOT offers extrarenal detoxification—cleansing the blood and interstitial fluids outside the kidneys, giving them a rest while still clearing toxins.

Gas-infused hydration also improves cellular filtration and lymphatic drainage, reducing toxin recirculation and improving internal balance.

#### 3. Reduces Systemic and Local Inflammation

Chronic kidney disease (CKD) is linked with persistent low-grade inflammation and oxidative stress.

IDOT infuses powerful antioxidants and anti-inflammatory agents that protect nephrons, reduce fibrosis, and help regulate immune activity in autoimmune-related kidney disease (e.g., lupus nephritis).

### 4. Alkalizes Internal Environment

Kidney disease often causes metabolic acidosis—a dangerous drop in pH due to decreased acid excretion.

By increasing systemic oxygen and buffering capacity, IDOT helps raisepH, reducing acidosis and improving enzymatic and cellular activity across all systems.

#### 5. Improves Blood Pressure and Vascular Health

IDOT's purification of blood, reduction of toxin load, and improvement in oxygenation help regulate vascular tone and reduce hypertension, which is both a cause and consequence of kidney disease.

## **Targeted Benefits for Kidney Conditions**

Condition	How IDOT Helps
Chronic Kidney Disease (CKD)	Reduces toxin load, improves oxygen delivery, slows nephron loss.
End Stage Renal Disease (ESRD)	Provides extracorporeal filtration and oxygenation, enhances residual renal function, supports longevity.
Diabetic Nephropathy	Improves glucose metabolism, reduces oxidative stress and glomerular inflammation.
Hypertensive Nephrosclerosis	Lowers inflammation and vascular resistance, improving perfusion.
Autoimmune Renal Conditions	Detoxes inflammatory triggers, modulates immune response, preserves renal architecture.

## **In Summary**

**IDOT is a revolutionary nephrology support tool** because it:

- Detoxifies the blood without burdening the kidneys
- Reverses hypoxia and improves nephron oxygenation
- Reduces inflammation, acidosis, and oxidative stress
- Preserves and restores filtration, electrolyte balance, and vascular stability

For both early-stage and advanced renal disease, IDOT offers a noninvasive, restorative therapy that supports kidney recovery or preserves remaining function, with benefits for longevity and overall systemic health.

# Nephrology Market Analysis

There are approximately 9.95 nephrologists per million people globally, totaling around 79,600 nephrologists worldwide. In the United States, there are between 10,370 and 12,939 nephrologists.

In 2024, the U.S. nephrology drugs market was valued at \$5.08 billion, and globally at about \$17.71 billion. The global nephrology drugs market is expected to grow at a compound annual growth rate (CAGR) of 5.52% from 2024 to 2034, reaching \$30.30 billion by 2034.

AIT's treatment will be of particular interest to Nephrologists because of the link to diabetes, but also due to the role that AIT can play in receiving stress on the kidneys once toxicity is removed from the patient's body.