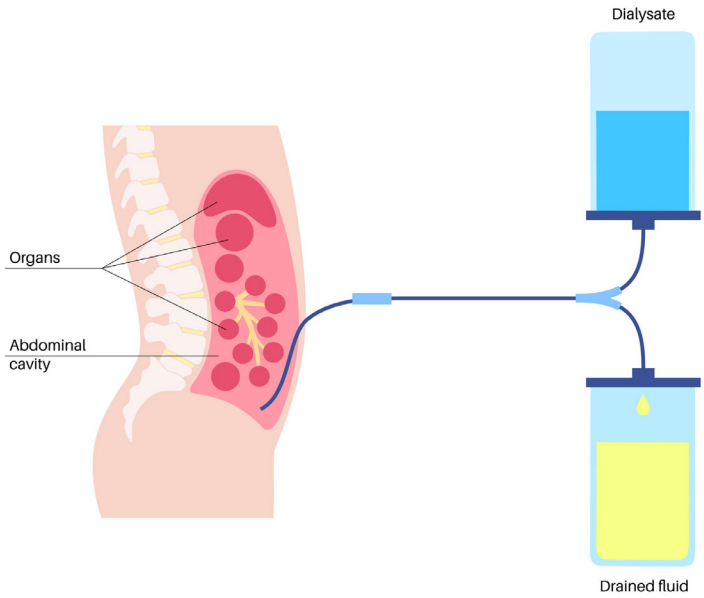
Peritoneal Dialysis Explained



Peritoneal dialysis (PD) is a treatment for kidney failure that uses the lining of your abdomen (called the peritoneum) to filter waste, excess fluids, and toxins from your blood. This process is an alternative to hemodialysis and can often be done at home. Here's how it works:

PD involves a dialysis solution, which is a sterile fluid called dialysate is introduced into your abdominal cavity through a soft tube (catheter) surgically placed in your abdomen. The dialysate stays in your abdomen for several hours, allowing waste, toxins, and excess fluid to move from your blood vessels in the peritoneum into the dialysate. After the exchange period, the used dialysate is drained and replaced with fresh dialysate.

How Peritoneal Dialysis Works:

Dialysis Solution: A sterile fluid called dialysate is introduced into your abdominal cavity through a soft tube (catheter) surgically placed in your abdomen.

Exchange Process: The dialysate stays in your abdomen for several hours, allowing waste, toxins, and excess fluid to move from your blood vessels in the peritoneum into the dialysate.

Drain and Refill: After the exchange period, the used dialysate is drained and replaced with fresh dialysate.

Types of Peritoneal dialysis (CAPD, CCPD)

- CAPD – Continuous Ambulatory Peritoneal Dialysis, which cleans your body during the day. You will need to exchange the fluids every few hours, which can take 40 minutes per session (usually 4 times a day).

- CCPD – Continuous Cycling Peritoneal Dialysis, is a an automated method of Dialysis which runs while you are sleeping. 8-12 liters of fluid will be exchanged during the course of a 8-10 hours sleep. You will also need to be monitored frequently by nurses and clinics due to the strict rules and guidelines which need to be met.

Peritoneal Dialysis Access:

Peritoneal access: A special tube is placed during a short surgical procedure into the abdomen. Placement of the catheter is usually done 10-14 days before dialysis starts.

Peritoneal Dialysis Explained

Benefits of Peritoneal Dialysis:

- Can be done at home, offering more flexibility.
- Avoids the need for frequent trips to a dialysis center.
- Provides a more steady removal of waste products and fluid, which may better mimic natural kidney function.
- Offers greater independence for many patients.

CAPD – Continuous Ambulatory Peritoneal Dialysis (manual exchange) in progress

Considerations:

Requires training and discipline to maintain a sterile technique to prevent infection (e.g., peritonitis).

Not suitable for everyone; the effectiveness depends on factors like the condition of the peritoneum and overall health.

Regular follow-up with your healthcare team is essential to ensure it works effectively.

Suitability

Peritoneal dialysis is well-suited for people who:

Have a functional peritoneum (the abdominal lining) is essential for effective PD. Conditions like abdominal scarring or surgeries may limit its effectiveness.

Are in stable cardiovascular and lung health, with a supportive home environment to help with the process.

Can manage strict hygiene practices to prevent infections.