

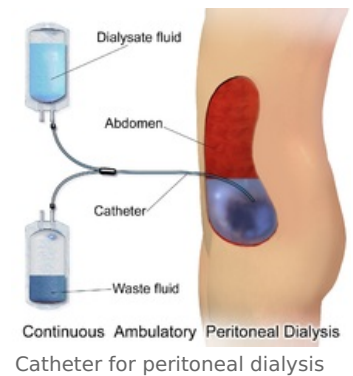
Catheter for peritoneal dialysis

Peritoneal dialysis

 For more information see *Peritoneal dialysis*.

Peritoneal or abdominal dialysis is one of two dialysis options in the treatment of chronic kidney failure.

During peritoneal dialysis, the blood is cleaned inside the body, in the abdominal cavity. The natural membrane - peritoneum, is used as a "filter". It lines the inside of the abdominal wall and covers the surface of the abdominal organs, it is richly supplied with blood vessels. The blood that flows through it is purified by passing through the peritoneum. The abdominal cavity serves as a **reservoir for dialysis solution**. Pollutants and excess water pass into the solution due to the concentration gradient and osmotic forces through the peritoneum. It is then drained out of the body and replaced with fresh solution. The solution is filled and drained using a flexible, thin plastic tube that is permanently inserted into the abdominal cavity. This is a **peritoneal catheter**. The so-called **Tenckhoff catheter** is most often used.



History

Its creator was the American nephrologist Dr. Henry Tenckhoff. In 1969, he developed the basic type of catheter for chronic peritoneal dialysis. Until then, a disposable catheter was used. Dialysis usually took place once a week for 24 hours. The catheter was then removed and punctured again after a few days. Henry Tenckhoff shortened the catheter, designed a straight and twisted end, added 2 cuffs. The appearance of the catheter has not changed much since then.

Peritoneal catheter

Catheters are most often made of silicone rubber. They are thin, the inner diameter of the hose is 2.6 mm. The catheter has 3 parts. The abdominal part is equipped with a number of small holes, the end can be twisted *like a tail* or straight. The middle part of the catheter passes through the abdominal wall, there are cuffs made of polyester material, into which the surrounding tissue "grows" after the catheter is inserted. The third part of the catheter is external, it is fitted with an end piece, a transfer set, which serves as a connection to the bags with dialysis solution.

There is a white stripe along the entire length of the catheter, which allows the catheter to be **x-rayed**.

There are other types of peritoneal catheters: eg *Swan-neck'* (swan neck), which has a knee bend in the abdomen, **presternal peritoneal catheter**, which has a long subcutaneous tunnel and opens above sternum.

Links

Related articles

- Peritoneal dialysis

Bibliography

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