

KIDNEY FAILURE TREATMENT OPTIONS



The kidneys are two vital organs in our body. They remove waste products and excess fluid from your blood as urine and regulate hormones which help to control blood pressure.

Introduction

The kidneys are two vital organs in our body. They remove waste products and excess fluid from your blood as urine and regulate hormones which help to control blood pressure, produce red blood cells and help form healthy bones.

When your kidneys fail, you need treatment to replace the work normally performed by your kidneys. At this point some decisions have to be made about your treatment. Usually kidney failure progress slowly over a period of several years. You should plan treatment for kidney replacement *before* it is needed.

Your doctor will tell you when you need to make a decision about your treatment options.

What are the treatment options available to me?

- If you choose to receive treatment, these are the treatment options
 - Kidney Transplant
 - Dialysis
- You may choose to forgo kidney replacement and opt for palliative care.

Making the Right Choice

Your treatment choice will have an impact on your daily life. You will have to manage your time needed for family, work and medical needs. With the help of your healthcare team and family you can decide what means most to you. Each treatment has advantages and disadvantages.

We hope that the following information will help you understand how each treatment works so that you can decide which treatment is most appropriate for you.

TREATMENT OPTIONS

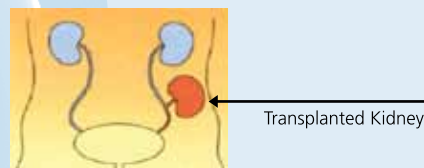
A) KIDNEY TRANSPLANT

A kidney from a living donor (related or unrelated) or from a deceased donor (a person who has recently died) is removed and surgically placed into your body. The wait for a deceased donor kidney can be several years as there is a long waiting list. Living related donor kidneys have better survival.

The transplanted kidney does enough of the work that your two failed kidneys used to do to keep you healthy and symptom free.

The transplant team considers various factors in matching kidneys with potential recipients.

You will need an assessment for fitness to undergo kidney transplantation.



Transplanted Kidney

Advantages of Kidney Transplant:

- A transplanted kidney works like a normal kidney.
- Helps to return you to a state of good health.
- You have fewer dietary restrictions.
- You do not need dialysis.

Disadvantages of Kidney Transplant:

- If you do not have a living donor, you may have to wait a considerable time for a deceased donor.
- It requires major surgery.
- Your body may reject the new kidney, so the transplant may not last a lifetime.
- You will need to take anti-rejection medicine to maintain the transplanted kidney.

B) DIALYSIS

Dialysis removes your body's waste and excess fluid from the blood. It only replaces some of the functions of the kidney.

There are two forms of dialysis:

- Haemodialysis
- Peritoneal Dialysis

HAEMODIALYSIS

How is haemodialysis performed?

During haemodialysis blood is drawn out from the body into the artificial kidney where waste and excess fluid are removed and the cleansed blood is then returned to the body.

Blood Access

In order to perform haemodialysis, a surgically created opening between an artery and a vein known as a 'fistula' is needed. This allows veins on the surface near the skin to enlarge and blood can be drawn out and returned through needles inserted into these enlarged veins. If your veins are too small, a graft using artificial material is needed.



Fistula

If your access is not ready, you may require a temporary form of access using a catheter placed into the veins in the neck. These catheters have a high risk of complications and should not be used for long.



Catheter

Advantages

- It is performed 3 times a week for usually 3 to 4 hours each time.
- It is performed by nurses and dialysis care technicians in hospitals or satellite centres.
- Doing haemodialysis in a dialysis centre or hospital allows for social contact.

- No equipment/supplies needed at home unless you opt for home dialysis.

Disadvantages

- You have a fixed schedule for your treatment.
- You are required to travel to the centre or hospital of your choice.
- You will be confined to your dialysis chair for 4 hours.
- Medications, fluid restriction and dietary control are necessary.
- Two needle sticks for each treatment.

PERITONEAL DIALYSIS

How does Peritoneal Dialysis Work?

This is a daily treatment. It uses the peritoneal membrane as the filter for dialysis. The peritoneal membrane lines the wall of the inner abdomen and covers the abdominal organs. The dialysis solution, which is a specially prepared fluid, is drained into the abdominal cavity through a special tube called the peritoneal catheter.

Peritoneal Dialysis

Dialysis fluid is introduced to the abdominal cavity via the catheter



Waste products and extra fluid is removed from the blood into the dialysis solution. When the dwell is completed, the 'used' dialysis solution can then be drained out of the abdomen and fresh dialysis solution is instilled.

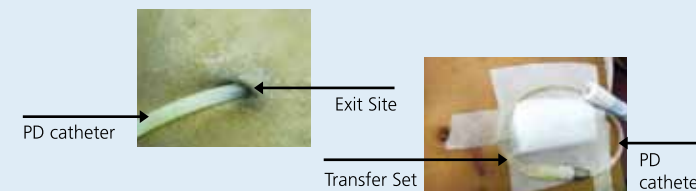
Peritoneal Dialysis

The "dirty" fluid is then drained out and replaced with new clean fluid for further dialysis



Access for Peritoneal Dialysis

A minor operation is necessary to implant the catheter inside the abdomen. It is permanent access that carries the dialysis solution into and out of the abdomen. The portion of the catheter that is outside the abdomen can be easily hidden under your clothing. Caring for your catheter and the exit site is very important. Care must be taken not to introduce any infection into the abdominal cavity.



There are two forms of peritoneal dialysis:

- CAPD (Continuous Ambulatory Peritoneal Dialysis) is done manually
- APD (Automated Peritoneal Dialysis) is done using a machine

CAPD (Continuous Ambulatory Peritoneal Dialysis)

When you are on CAPD, the dialysis solution is infused into the abdominal cavity through a catheter. The solution then dwells for a prescribed period of time, this is called 'dwell'. When the dwell is completed the 'used' solution in the abdomen can then be drained out and fresh solution instilled. By doing this process it is called "an exchange". This can be performed in any clean and convenient place – at home, workplace and school. The exchanges are performed manually during the day.

Most patients on CAPD need to do about 4 to 5 exchanges a day. Each exchange of 2 litres of dialysis solution takes about 30 minutes and it is done every 4 to 6 hours. At night, most patients still need fluid in the abdomen to continue dialysis (long dwell).

APD (Automated Peritoneal Dialysis)

You have to use an automated cyclor machine to perform the exchanges in the night for 8 to 10 hours. The machine allows the dialysis solution to automatically fill and drain from the abdominal cavity while you are asleep. The long dwell then occurs during the day. Sometimes you may be required to perform an exchange during the day.



Dialysis Solution

Cyclor Machine

Advantages of Peritoneal Dialysis

- Do not need to travel to a dialysis centre 3 times a week.
- You can plan your dialysis exchanges around your daily routine.
- You can perform your dialysis at home/workplace.
- No needles are required.
- Less diet and fluid restrictions.

Disadvantages of Peritoneal Dialysis

- Four to five exchanges per day are needed for CAPD.
- A catheter leading from the abdominal cavity to the outside is permanently present.
- Infection can be a problem if correct procedure is not followed.
- The home environment must be suitable for doing dialysis.

Palliative Care – Management without kidney replacement

This is more commonly a choice for the very elderly and infirm. If interested, you should discuss this in greater detail with your doctor.



Do consider these options carefully. Time is usually needed to make a good choice, so do not leave it to the last minute. A hurried decision may not be the correct one.

Blk 333 Kreta Ayer Road #03-33 Singapore 080333
Tel: 65592630 Fax: 62250080 Website: www.kdf.org.sg

肾衰竭的治疗选择



肾脏是人体内的一对重要器官。它的主要功能是通过血液过滤,把体内的废物和多余水分,以尿液形式排出体外。

肾衰竭的治疗选择

肾脏是人体内的一对重要器官。它的主要功能是通过血液过滤,把体内的废物和多余水分,以尿液形式排出体外。肾脏同时也调节分泌激素,有助于控制血压、促进红血球生成,及骨骼健康。

当肾衰竭时,你需要开始接受治疗以代替肾脏的功能。此时,需要决定你的治疗方案。通常肾衰竭是逐年慢慢发展的,因此你需要在肾衰竭之前做出治疗方案的决定。

有哪些治疗方案可供选择?

- 若你选择接受治疗,以下是治疗选项
 - a) 肾脏移植
 - b) 透析治疗
- 你可选择停止肾脏替换治疗而选择姑息治疗。

作出正确的决定

你的治疗抉择对你的日常生活将有一定的影响,你需要在你的家庭、工作及医疗之间分配你的时间。在医疗团队和家人的协助下,可做出你认为最适当的选择。每一项治疗都有它的优点与缺点。

我们希望以下的信息可以帮助你更好的了解哪一项治疗较适合你。

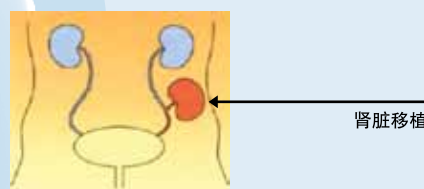
治疗选择方案

A) 肾脏移植

移植肾的来源是从亲属活体供肾或脑死病患(近期脑死者)的身上取出,然后用外科手术植放在肾病患者的体内。通常需要好几年的时间等待脑死者的肾脏,因为等待的肾病患者的名单很长。来自亲属活体供肾会较匹配,生存的几率较高。

肾脏移植可以替代已衰竭的肾功能,使你过着健康,无症状的生活。

移植肾脏的医务队在手术前,需要考虑许多因素如移植的肾是否与肾患者匹配。肾患者也需要在手术前接受健康的测定。



肾脏移植的优点:

- 移植肾可像正常的肾一样的运作。
- 可帮助你回复良好的健康状态。
- 较少的饮食限制。
- 无需接受透析治疗。

肾脏移植的缺点:

- 若没有活体肾源,肾患者就需要一段时间等待脑死者的肾脏。
- 需要进行一个大手术。
- 自身可能会对新的移植肾产生排斥反应,因此移植肾或许不持久。
- 须长期服用抗排斥的药物以预防移植肾被排斥。

B) 透析治疗

透析治疗只能代替肾脏部分的功能,它是通过血液的过滤将体内的废物及多余的水分排除。

两种透析治疗:

- 血液透析
- 腹膜透析

血液透析

什么是血液透析?

血液透析就是把血液导出体外,用人工滤过器过滤出废物及多余的水分,将干净的血再输回体内。

血管通路

患者需要建立一个永久的血管通路,通过外科手术将动脉和静脉之间连结成瘘管。以许可在皮肤表层上将针插入瘘管引流血液进入过滤器里。如果血管太细小,需要一个人造管子,即动-静静脉再植瘘。



如果血管通路还没有建立好,你需要在脖子的血管建立一个临时的导管。这些导管可能导致并发症,不能长时间使用。



优点

- 每周需接受3次的透析治疗,每次约3至4小时。
- 在医院或透析卫星中心,将由医护人员执行治疗。

- 在透析中心或医院中接受治疗可允许患者有社交的机会。
- 家中无需拥有机器和设备,除非患者选择在家透析。

缺点

- 透析时间是固定的。
- 需要花时间去你所选择的中心或医院。
- 每次4个小时的治疗,需局限于透析椅子上。
- 须遵服药物治疗,水份的限制,饮食的控制。
- 每次须要扎2只针在瘘管里。

腹膜透析

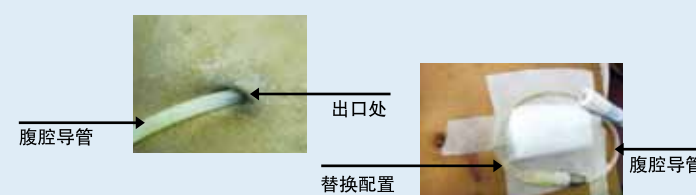
什么是腹膜透析?

腹膜透析需要每日进行。它是运用人体的腹膜为过滤膜进行透析治疗。腹膜是一层覆盖在腹腔内壁及脏层上(包括胃肺脾脏及肠子)的薄膜。透析液经由腹腔导管注入腹腔里放置一段时间,然后将血液里的代谢废物和多余流质与透析液一起排出体外,之后再注入新的透析液留在腹腔里。



腹膜透析的通路

若选择腹膜透析,必须先进行一项微型手术将导管植入腹部内。导管植入是永久性的,可允许透析液注入和放出体外。导管外露的部分能轻易地用衣物遮盖。必须小心呵护导管和出口处以避免腹腔受感染。



腹膜透析治疗有两种方式:

- 可连续性可携带性腹膜透析(人工执行)
- 全自动腹膜透析(机器执行)

可连续性可携带性腹膜透析(简称CAPD)

可连续性可携带性腹膜透析是将透析液通过导管注入腹腔里,并且留置一段指定时间,即称为‘留置时间’。当留置时间到,使用过的透析液通过手控引流排出腹腔,然后注入新的透析液。

液。这过程称为‘替换’。这替换过程可在任何干净及方便的场所(如:居家环境、工作场所及校园)在日间自我执行。

可连续性可携带性腹膜透析的病人需每日替换透析液4至5次,每次使用2公升的透析液,过程约30分钟,每隔4至6小时替换一次。到了夜晚,多数病人需要再注入透析液继续进行透析(长时间留腹治疗)。

全自动腹膜透析(简称APD)

需要一台自动循环机器以彻夜进行透析液替换,可在时间长达8至10小时里连续执行多次的换液程序。当病人在睡眠时,机器能自动执行换液过程。需长时间留腹治疗则在日里,有时在日间需进行多一次替换。



腹膜透析的优点

- 无需每周到透析中心进行3次治疗。
- 你可照常生活作息而定替换时间。
- 你可在家中或工作场所进行腹膜透析。
- 治疗过程中无扎针。
- 较少饮食与水分摄取的限制。

腹膜透析的缺点

- 可连续性可携带性腹膜透析,每日须作4至5次的替换。
- 导管植入从腹腔到部分导管露在体外是永久性的。
- 若无照正确的程序,可能会受细菌感染。
- 家中环境必须适合进行腹膜透析。

姑息治疗 - 肾脏替换治疗以外的另一种选择

姑息治疗为一般年老者或较虚弱的患者的选择。若欲知详情,请与你的医生详细讨论。



请谨慎考虑以上所提供的治疗方案。正确的选择往往需要一些时间作决定,切勿等到最后一刻。仓促作的决定不等于正确的抉择。