

WHAT IS A VASCULAR ACCESS?

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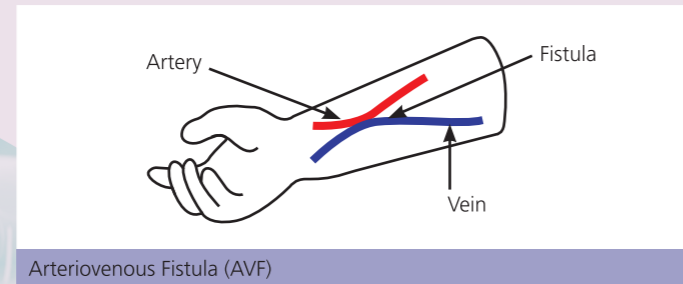
A vascular access is a point of entry into blood vessels so that you can be connected to the dialysis machine. It is often referred to as your dialysis life line.

There are three types of access:

- Fistula (arteriovenous fistula)
- Graft (arteriovenous graft)
- Catheter

Arteriovenous Fistula (AVF)

This involves a small operation to join a suitable artery (which supplies blood) and a suitable vein together, allowing the arterial blood to flow directly into the vein. This higher pressure enlarges the vein so that it can be used for dialysis. The wrist or upper arm are usually chosen to create the fistula. This makes it easier to insert the needles that are required to withdraw blood and also to return it to the body.



A fistula is the best type of access because:

- Your veins and arteries are part of your body, so a fistula is less prone to infections or clots than other type of access.
- Self-healing occurs after each needle stick, so the fistula can last for a much longer time.

It is best to create an access before you need dialysis. Your doctor will decide when you should have it done and which type of access will work best for you.

When can an AVF be used?

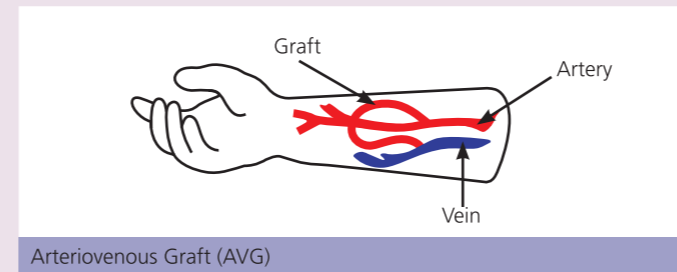
Ideally a new fistula should not be used for 3 to 4 months after surgery as it needs time to mature though some can be used after 2 months.

What happens after surgery?

Sometimes your arm may swell for a few days or weeks. When the swelling subsides, you must exercise by squeezing a rubber ball many times a day to increase the blood flow to the fistula arm. This helps the fistula mature faster.

Arteriovenous Graft (AVG)

A graft uses a tube that is either synthetic (man-made) or veins harvested from other parts of the body. This is then used to join a suitable artery and a vein together. It is used when patient's own blood vessels are too small to create a fistula. This is often necessary for the elderly or diabetic patients.



These can be either straight or looped. The most popular material used for the grafts is in a form of Teflon® (expanded polytetrafluoroethylene, ePTFE). Gore-Tex® is another material that is used. Grafts are most commonly placed in the upper arm, lower arm or thigh. It is placed under the skin.

When can an AVG be used?

It takes 3 to 6 weeks before the new graft can be used for dialysis.

What happens after surgery?

Sometimes your arm may swell for a few days or weeks. You must allow adequate healing and sufficient growth of tissue to stabilize the graft before you start needling.

Dialysis Catheter

A catheter is a plastic tube placed into the large veins in the neck or groin. It is mainly for short-term use until a fistula or graft is ready. Some catheters can be tunneled under the skin to allow for stability and protection from infection. Non-tunneled catheters are more easily inserted but more likely to cause infection.

A tunneled catheter (sometimes referred to as "Permcath") may be placed for patients with very poor veins and arteries but they are still not as good as a fistula. They can clot thus blocking the blood flow, become infected and cause narrowing of the veins in which they are placed.

Care of the Arteriovenous Fistula or Graft

You can take several steps to protect your access:

- Use your access site only for dialysis.
- Keep your access clean and dry at all times.
- Check for the "buzzing" everyday. Inform your nurse or doctor if you cannot feel the buzz. Do not wait until your dialysis day as you will not be able to use it when you need it most.
- Inform your nurse or doctor if your access is red, warm, has pus or you have a fever.
- Don't wear jewellery or tight clothes over your access site.
- Don't place heavy objects or put pressure over your access arm. This will close off the flow in the fistula or graft.
- Don't allow anyone to put a blood pressure cuff on your access arm.
- Be careful not to bump or hurt your access.

- Don't sleep with your access arm under your head or body.
- Wear an arm guard to protect the access in sports or doing heavy work.
- Wash your access arm with antiseptic soap before dialysis.
- Don't apply too much pressure on the access punctured site after dialysis. Your nurse will teach you how to apply sufficient pressure to stop bleeding.
- Remember to tell your nurse to rotate the needling sites to allow healing of the punctured site and to prolong the life span of the access.



You may visit these websites for more information:

- <http://www.kdf.org.sg/health.aspx>
- <http://www.davita.com>
- <http://www.uptodate.com/patients/index.html>

什么是血管瘘？

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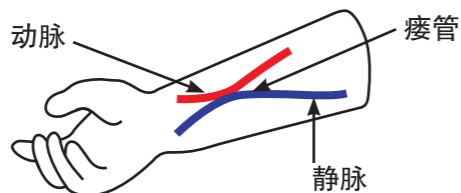
血管瘘是外界进入血流的一个连接点，这样才能使病人与机器连接起来。又被称为洗肾病人的‘生命线’。

这里有三种血管瘘：

- 1) 动 - 静脉瘘
- 2) 动 - 静脉再植瘘
- 3) 导管

动 - 静脉瘘

这是一个小手术将一个适合的动脉（需供应血流量）与适合的静脉连接在一起，让动脉的血液直接流入静脉里，使静脉的压力增加。这样静脉能扩张，血流量加强方便透析穿刺。通常选手腕或前臂，因较容易穿刺血管瘘进行洗肾。



动 - 静脉瘘

动 - 静脉瘘是最理想的选择，因为：

- a) 动脉与静脉是你的身体的一部分。所以，比起其他的瘘较不容易受到感染或凝结。
- b) 在每次的透析穿刺之后，针口会自动愈合，所以动静脉血管瘘会维持比较久。

你的医生会决定几时需要做血管瘘的手术和那种瘘管较适合你。最好是在需要洗肾之前，将瘘管预备好。

什么时候可以用血管瘘？

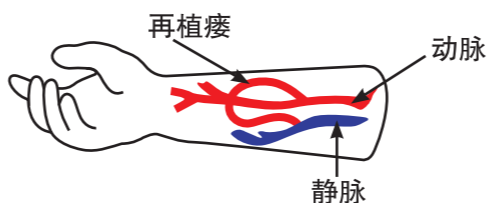
因血管瘘需要时间成熟，最理想是手术后的三到四个月，既可以用来洗肾。但有一些只需两个月后就能使用。

手术后会怎么样？

你的手臂会肿胀可能几天也可能持续几周。当消肿后，你必须每天都做手臂运动，挤压小的橡胶球多次，使血管瘘的血液流量增加，有助于瘘管快点成熟。

动 - 静脉再植瘘

动 - 静脉再植瘘是使用人造管子或取自其它身体部位的静脉，然后再接一个适合的动脉与静脉连在一起。尤其当病人自身的血管太细时，而不能被接为动-静脉瘘。通常为年老或糖尿病病人。



动 - 静脉再植瘘

再植瘘可分别为直形或环形的。最常采用是一种类似塑胶之类的人造材料（Teflon®），全称是人工合成聚四氟乙烯（ePTFE）。另一种材料是Gore-Tex®。动 - 静脉再植瘘通常放在上臂、前臂或大腿的皮肤下。

什么时候可以用动 - 静脉再植瘘？

新的再植瘘需要等三到六周后，既可以用来洗肾。

手术后会怎么样？

有时你的手臂可能肿胀几天或者几周。所以必须等到它充分愈合，并让皮下组织增厚而使再植瘘稳固后能开始透析穿刺。

洗肾的导管

导管是一种塑胶质的管子置入主要静脉在颈项或腹股沟。这是为了等待瘘管或再植瘘成熟而短期使用的。有些管子会在皮下钻行一段距离才会进入血管，所以较稳固和不易受感染。而有些管子会直接进入血管，较容易插入，但容易受感染。

当病人的静脉或动脉不是很好时，可置入永久性的洗肾导管。虽然没有血管瘘好，因为它们会产生凝块而堵塞血管，导致感染并且使被安置的血管路变狭窄。

动 - 静脉瘘或再植瘘的保护

你可以采用以下的措施来保护你的瘘管：

- 1) 只有在洗肾时使用血管瘘。
- 2) 保持动静脉瘘或再植瘘部位干燥与清洁。
- 3) 每天都要检查与触摸瘘管或再植瘘是否有颤动或吱吱声。如果没有这样的感觉，立即通知主管医生或护士。不要等到洗肾时才通知，因已经不能使用了。
- 4) 发现瘘管处有感染的现象如：呈红、肿或者脓、发烧等症状，要及时通知护士或医生。
- 5) 不要穿过紧的衣服和佩戴首饰在有瘘管的手臂上。
- 6) 不要有用有瘘管的手臂搬运重物。这会影响血液的流动而使瘘管关闭。

7) 不要在瘘管的手臂量血压。

8) 不要碰伤有瘘管的手臂。

9) 睡觉时，不要压着有瘘管的手臂。

10) 参与运动或重型劳动时，要穿戴护套以保护瘘管。

11) 在透析前要用消毒液彻底清洗手臂。

12) 透析之后，避免过度用力压迫穿刺部位，只需使用适当的压力防止出血。护士会教你止血的方法。

13) 记得告诉你的护士要轮流更换穿刺部位。这可促使穿刺部位的愈合和延长瘘管的寿命。



欲知详情，可参阅以下的网址：

<http://www.kdf.org.sg/health.aspx>

<http://www.davita.com>

<http://www.uptodate.com/patients/index.html>

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