Hemodialysis Vascular Access

Hemodialysis cleans your blood through a fistula, graft or catheter. If you have kidney failure, one of these will be your LIFELINE! Talk with your doctor to decide which type of vascular access is best for you.

**Fistula**

A fistula directly connects an artery to a vein. The vein stretches over time, allowing needles to be put in it. **Fistulas are the gold standard for hemodialysis.**

**Advantages**
- Permanent
- Beneath the skin
- Lasts longest, up to 20 years
- Provides greater blood flow for better treatment
- Fewer infections & other complications
- Fewer hospitalizations
- Better survival (lower risk of dying than patients with catheters)

**Disadvantages**
- May not mature/develop
- Not possible for all patients
- Usually cannot be used for at least 6–8 weeks

**Graft**

A graft is a tube, usually made of plastic, that connects an artery to a vein, allowing needles to be put in it. **Grafts are the second best way to get access to the bloodstream for hemodialysis.**

**Advantages**
- Permanent
- Beneath the skin
- May be used after 2 weeks, in some cases
- May work in patients with poor veins

**Disadvantages**
- Increased hospitalizations
- Increased risk for clotting
- Increased risk for serious infections
- Increased risk for other complications and repair procedures
- Does not last as long as a fistula

**Catheter**

A catheter is a tube inserted into a vein in the neck or chest to provide vascular access for hemodialysis. The tip rests in your heart. It is usually a temporary access. It is the third choice for getting access to the bloodstream for hemodialysis. For some patients it is the only choice and it will need to be used as a permanent access.

**Advantages**
- Can be used immediately after placement

**Disadvantages**
- Higher infection rates, which can be very serious or fatal
- Increased hospitalizations
- Does not last long, usually less than one year
- May require longer treatment times
- Prolonged use may lead to inadequate dialysis
- Cannot shower without special appliance
- High rate of clotting requiring frequent procedures
- Risk of destroying important vein

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