

Life Renal Dialysis
**Understanding
vascular access**



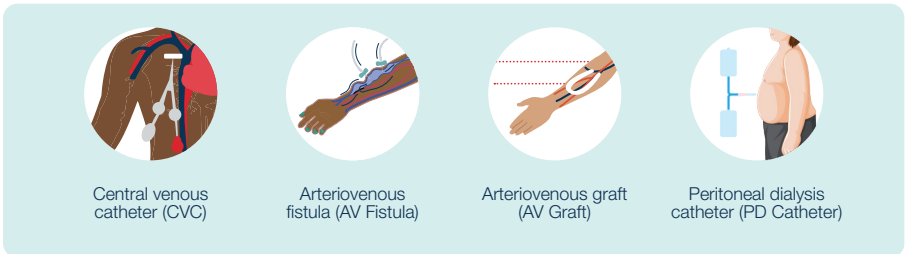
Vascular access for renal patients

1 Vascular access for renal patients

Dialysis treatments can only be administered by means of creating or inserting a specialised access to your blood circulatory system. A dialysis access is a critical factor in enabling you to obtain the best dialysis treatment possible. Having an understanding of the four types of dialysis accesses will help you and your nephrologist determine which type of dialysis access is right for you.

2 Types of dialysis access

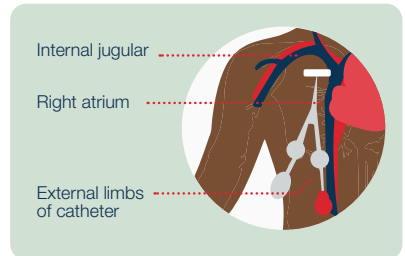
There are four different types of dialysis access used for hemodialysis, a process in which blood is transported from your body for cleaning:



Central venous catheter (CVC)

A central venous catheter (CVC), is a flexible, long, plastic, y-shaped tube that is threaded through your skin into a central vein in your neck, chest or groin.

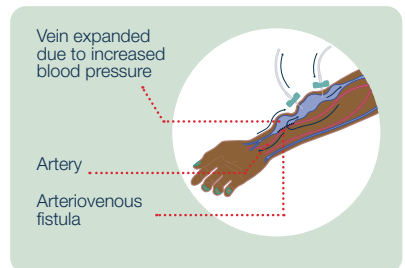
A CVC is not usually intended to be a permanent type of access.



Arteriovenous fistula (AV fistula)

An AV fistula, is an actual surgical connection made between an artery and a vein. An AV fistula is most often created in your non-dominant arm.

An AV fistula allows a higher rate of blood to flow back and forth from your vein to a dialysis machine. Once the AV fistula is complete, you will need to wait a few months before it can be used so it can fully heal. The waiting period is dependent on the prescription of the vascular surgeon.

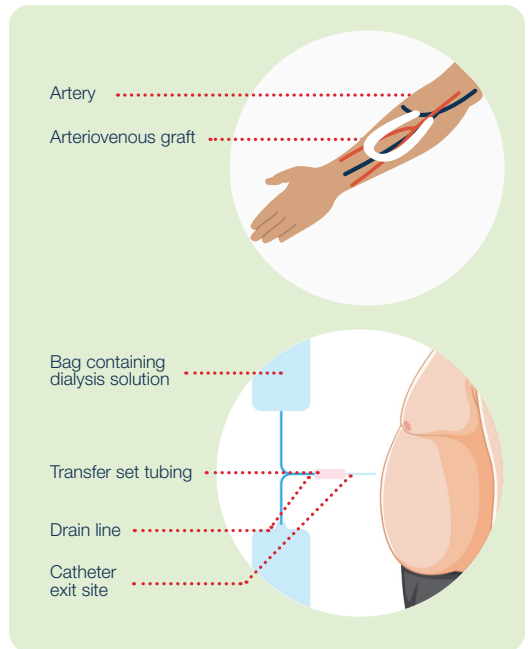


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Arteriovenous graft (AV graft)

An AV graft, functions similarly to an AV fistula. If you have blocked or damaged veins, or veins that are too small for a fistula, you may be a candidate for an AV graft. AV graft placement is also a surgical procedure, but instead of connecting the artery directly to the vein, one end of a small hollow, synthetic tube will be connected to your vein, and the other end will be connected to your artery.

Once the AV graft is complete, you will need to wait before it can be used. This will allow the access to fully heal. The waiting period is dependent on the prescription of the vascular surgeon.



PD catheter

A PD catheter is used for peritoneal dialysis, which uses the lining of your belly and a dialysate solution to clean your blood.

This type of dialysis can be a desirable method for people who are always on the go. With a PD catheter, dialysis can be performed at home and takes less time to accomplish. Peritoneal dialysis can either be administered as a manual process CAPD or as an automated process APD.

Continuous ambulatory peritoneal dialysis (CAPD) – This is a manual treatment. During CAPD, a liquid called dialysate is put into your abdomen through a catheter (thin tube). The dialysate pulls wastes, chemicals, and extra fluid from your blood through the peritoneum.

Automated peritoneal dialysis (APD) - this method uses a machine (automated cycler) that performs multiple exchanges at night while you sleep. The cycler automatically fills your abdomen with dialysate, allows it to dwell there and then drains it to a sterile bag that you empty in the morning.

3 Advantages and disadvantages of the types of venous accesses

	Advantages	Disadvantages
Central venous catheter (CVC)	<ul style="list-style-type: none"> ■ Quick to place and remove ■ May be used immediately for dialysis ■ CVC placement is an in-patient procedure 	<ul style="list-style-type: none"> ■ May damage central veins ■ May increase the length of the hemodialysis treatment ■ Soaking in a bath and swimming not recommended ■ Complications can include infection and catheter clotting
Arteriovenous fistula (AV Fistula)	<ul style="list-style-type: none"> ■ Can function for years ■ Not as likely as a catheter to become infected ■ Not as likely to clot ■ Takes only eight weeks to mature 	<ul style="list-style-type: none"> ■ May require another temporary type of access during the healing and maturation phase ■ Maturation may be delayed, or it may fail to mature ■ Needles are required to access the AV fistula for hemodialysis
Arteriovenous graft (AV Graft)	<ul style="list-style-type: none"> ■ Ready for use in three to four weeks ■ Easy to implant ■ Placement is an in-patient procedure 	<ul style="list-style-type: none"> ■ Doesn't last as long as an AV fistula ■ Needles still required to access the graft ■ Prone to clotting
Peritoneal dialysis catheter (PD Catheter)	<ul style="list-style-type: none"> ■ PD catheter placement is usually performed as an in-patient procedure ■ No need to use needles ■ Dialysis performed at home ■ No need for a temporary CVC 	<ul style="list-style-type: none"> ■ Soaking in a bath and swimming not recommended ■ Higher risk of clotting and infection

Vascular access for renal patients

4 How should you take care of your vascular access?



No intravenous infusions or blood samples should be allowed on the same arm as your access.



Ensure that your healthcare provider checks the access for signs of infection or problems with blood flow before each haemodialysis treatment.



Keep the access clean at all times.



Use the access site only for dialysis.



Be careful not to bump or cut the access.



Check the thrill in the access every day. The thrill is the rhythmic vibration you will feel over the vascular access area.



Watch out for and reporting signs of infection, including redness, tenderness, or pus.



Do not let anyone put a blood pressure cuff on the access arm.



A local anaesthetic cream or spray can be used to numb the AV fistula before it is needed.



Do not wear jewelry or tight clothes over the access site.



Do not sleep on top of your access arm – avoid weight on this arm.



Do not lift heavy objects or put pressure on your access arm.

5 What to expect after surgery and actions that need to be taken?

For arterio-venous fistula (AVF) and arterio-venous graft (AVG)

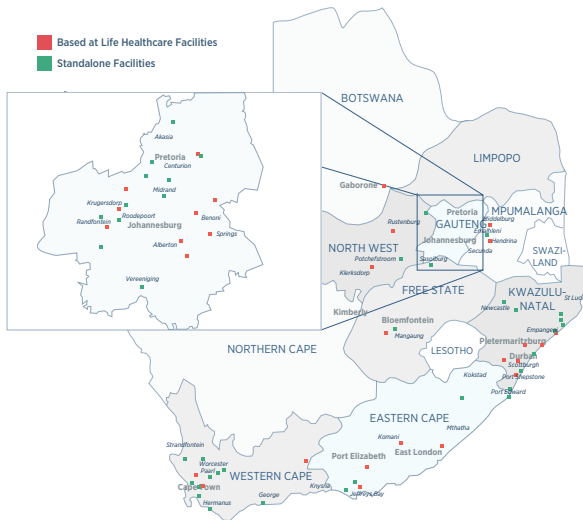
1	Swelling of your arm <ul style="list-style-type: none">■ Keep your arm elevated using a pillow.
2	Tenderness, redness or oozing around the access site <ul style="list-style-type: none">■ Inform the overseeing nurse to note any abnormal signs and call the vascular surgeons if needed.
3	It is normal to feel a tingle or vibration at the site of the access. This will be experienced due to a larger volume of blood passing through the newly created arterio-venous fistula (AVF) or graft (AVG).

In the event an arterio-venous graft (AVG) was created, the tingle / vibration may seem a little fainter than in the case of an AVF. This is due to the thickness of the membrane used to support AVG creation.

If you can no longer feel the vibration or tingling sensation in your arm, immediately inform your overseeing nurse for further medical attention. The overseeing nurse will contact the vascular surgeons' rooms as needed.

Contact details

National spread of chronic renal units and mobile renal units



GAUTENG

Based at Life Healthcare Facilities

LIFE BEDFORD GARDENS HOSPITAL

7 Leicester road, Bedford Gardens, Bedfordview, 2008
Telephone number: 011 677 8704 / 8525

LIFE BRENTHURST HOSPITAL

4 Park Lane, Parktown, Johannesburg, 2193
Telephone number: 011 647 9054

LIFE CARSTENHOF HOSPITAL

21 Dane road, Glen Austin, Midrand 1685
Telephone number: 011 655 5539

LIFE FOURWAYS HOSPITAL

Cnr Cedar road and Cedar Avenue West, Fourways, 2055
Telephone number: 011 875 1810

LIFE GROENKLOOF HOSPITAL

50 George Storrar drive, Groenkloof, Pretoria 0181
Telephone number: 087 161 9538

LIFE THE GLYNWOOD

33-35 Harrison street, Benoni, 1501
Telephone number: 011 741 5425 / 011 741 5447

LIFE ROBINSON PRIVATE HOSPITAL

1 Hospital road, Randfontein, 1759
Telephone number: 011 278 8889

LIFE SPRINGS PARKLAND HOSPITAL

Artemis road, Pollak Park, 1559
Telephone number: 011 812 4073 / 011 812 4189

LIFE WILGHEUWEL HOSPITAL

Amplifier road, Radiokop Ext 13, Roodepoort, 1724
Telephone number: 011 796 6535

Standalone Facilities

LIFE RENAL DIALYSIS ATTERIDGEVILLE

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LIFE RENAL DIALYSIS GROENKLOOF

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LIFE RENAL DIALYSIS KEMPTON PARK

Floor, Arwyp Medical Suites, 22 Pine Avenue,
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LIFE RENAL DIALYSIS LENASIA

Block A Signet Terrace Office Park, cnr Hummingbird Avenue
and Guinea Fowl street, Lenasia, 1827
Telephone number: 011 852 5765

LIFE RENAL DIALYSIS MIDSTREAM

Midstream Hill Medical Park G8, cnr Midstream Hill Boulevard
and Godley drive, Centurion, 1692
Telephone number: 010 612 0726

LIFE RENAL DIALYSIS MORNINGSIDE

Summit Park, 495 Summit road, Morningside, Sandton, 2196
Telephone number: 011 884 4444

LIFE RENAL DIALYSIS RANDFONTEIN

37 Homestead Avenue, Greenhills, Randfontein, 1759
Telephone number: 021 612 0239

LIFE RENAL DIALYSIS VAAL

34 Kruger Avenue, Vereeniging
Telephone number: 087 997 1552 / 016 455 4007

Contact details

National spread of chronic renal units and mobile renal units

LIFE RENAL DIALYSIS WESTRAND

Mayo Clinic, 8 Ground Floor, cnr William Nicol and Joseph Lister,
Flora Cliff, Roodepoort, 1703
Telephone number: 011 475 2630

LIFE RENAL DIALYSIS WITS (DONALD GORDON)

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Telephone number: 011 726 3548 / 011 356 6555

MPUMALANGA

Based at Life Healthcare Facilities

LIFE COSMOS HOSPITAL

Cnr OR Tambo and Beatty Ave, eMalahleni, 1034
Telephone number: 013 653 8190

LIFE MIDMED HOSPITAL

4 Crocker street, Middelburg, 1055
Telephone number: 013 243 1171

Standalone Facilities

LIFE RENAL DIALYSIS EMALAHLENI (WITBANK)

2nd Floor, Room 202, Emalahleni Private Hospital,
39 Mandela street, Witbank, 1034
Telephone number: 013 656 2676

NORTH WEST

Based at Life Healthcare Facilities

LIFE ANNCRON HOSPITAL

Klerksdorp
16 Van Rynefeld street, Willkoppies, Klerksdorp, 2571
Telephone number: 010 056 3510

Satellite renal units

Viljoenskroon
20 Engelbrecht street, Viljoenskroon, 9520

Hartswater
Hartsdok Sentrum, 28 Hertzog street, Hartswater, 8570

Lichtenburg
Shop no 2 Spar Komplex, Beyers Naudé street, Burgersdorp, 2740
Telephone number: 087 352 9010

LIFE PEGLERAE HOSPITAL

Cnr Kerk and Heystek street, Rustenburg, 0299
Telephone number: 014 101 0142

Standalone Facilities

LIFE RENAL DIALYSIS BRITS

Cnr of Pienaar en De Wits straat, Hans Marie Trust Building, Brits
Telephone number: 061 879 8779 / 012 252 7580

LIFE RENAL DIALYSIS POTCHEFSTROOM

Mooimed Private Hospital, 1 Chief Albert Luthuli street,
Potchefstroom, 2531
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WESTERN CAPE

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LIFE KINGSBURY HOSPITAL

23 Wilderness road, Claremont 7700
Telephone number: 021 670 4279 / 021 670 4274

LIFE KNYSNA PRIVATE HOSPITAL

Hunters Estate drive, Knysna 6570
Telephone number: 044 302 5238

LIFE VINCENT PALLOTTI HOSPITAL

Alexandra road, Pinelands, Cape Town 7405
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Standalone Facilities

LIFE RENAL DIALYSIS ATHLONE

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LIFE RENAL DIALYSIS DURBANVILLE

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LIFE RENAL DIALYSIS GEORGE

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LIFE RENAL DIALYSIS HERMANUS

Hermanus Medical Centre, First Floor, Suite 13,
Ravenscroft street, Hermanus, 7200
Telephone number: 028 312 4085

LIFE RENAL DIALYSIS PANORAMA

1st Floor, Panorama Healthcare Centre, cnr Rothchild and
55 Hennie Winterbach streets, Panorama, 7500
Telephone number: 021 612 0239

LIFE RENAL DIALYSIS PARKLANDS

6 Emporium Centre, cnr Braselton and
Sandown roads Parklands, 7441
Telephone number: 021 770 0024

RED CROSS KIDNEY AND DIALYSIS CENTRE

E Floor, Room E1, Red Cross Childrens Hospital,
cnr Klipfontein and Milner roads, Rondebosch, 7925
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LIFE RENAL DIALYSIS WINELANDS

Unit 3E, F Arun Place, Sir Lowry's Pass road, Longdown,
Somerset West, 7130
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LIFE RENAL DIALYSIS WORCESTER

25 Riebeeck street, Worcester, 6850
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EASTERN CAPE

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LIFE EAST LONDON PRIVATE HOSPITAL

32 Albany street, East London, 5201
Telephone number: 043 702 3800 / 01

LIFE MERCANTILE HOSPITAL

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Port Elizabeth 6020
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Contact details

National spread of chronic renal units and mobile renal units

LIFE ST GEORGE'S HOSPITAL

40 Park Dr, Central, Port Elizabeth, 6001
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LIFE QUEENSTOWN PRIVATE HOSPITAL

Cnr Ebdon and Griffiths St, Queenstown, 5319
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Standalone Facilities

LIFE RENAL DIALYSIS JEFFREYS BAY

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LIFE RENAL DIALYSIS KOKSTAD

94 Hope street, Kokstad, 4700
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LIFE RENAL DIALYSIS PORT ELIZABETH

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LIFE ROSE PARK HOSPITAL

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Standalone Facilities

LIFE RENAL DIALYSIS BLOEMFONTEIN

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LIFE RENAL DIALYSIS SASOLBURG

18 NJ Van der Merwe street, Sasolburg, 1947
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KWAZULU-NATAL

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LIFE CHATSMED GARDEN HOSPITAL

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LIFE EMPANGENI PRIVATE HOSPITAL

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LIFE ENTABENI HOSPITAL

82 Mazisi Kunene road, Glenwood, 4001
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LIFE HILTON PRIVATE HOSPITAL

Cnr Hilton Avenue and Monzali drive, Hilton
Telephone number: 033 329 5678

LIFE MOUNT EDGEcombe HOSPITAL

163 - 179 Redberry road, Rockford, 4068
Telephone number: 031 537 4227 / 4231

LIFE WESTVILLE HOSPITAL

7 Harry Gwala road, Westville, 3630
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Standalone Facilities

LIFE RENAL DIALYSIS BALLITO

16 Douglas Crowe drive, 1st Floor, Revive Medical Centre, Ballito
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65 Gemini Crescent Woodhurst Chatsworth 4092
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LIFE RENAL DIALYSIS RICHARDS BAY

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LIFE RENAL DIALYSIS UMHLANGA

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