

# TAKE CHARGE OF YOUR HEALTH!

PATIENT EDUCATION HANDBOOK



# TAKE CHARGE OF YOUR HEALTH!

This handbook is designed to empower and educate dialysis patients like you on essential topics for managing your conditions effectively. The more you learn about complications of dialysis, the better you can manage them well, make informed decisions and enjoy a fulfilling life.

We aim to offer user-friendly information, equipping you with knowledge and practical tips on 4 key topics which are vascular access care, fluid control, fall prevention and anaemia management. Presented in a clear and concise manner, we hope it serves as an essential tool as you play an active role in your own rehabilitation journey.

Rest assured that our dedicated team of healthcare professionals, including doctors, nurses, social workers, dietitians, therapists and exercise specialists, will continue to journey alongside you and your family. Remember, you are not alone! We strongly encourage you to explore the following pages and embark on this journey towards improved health and well-being.



## VASCULAR ACCESS CARE

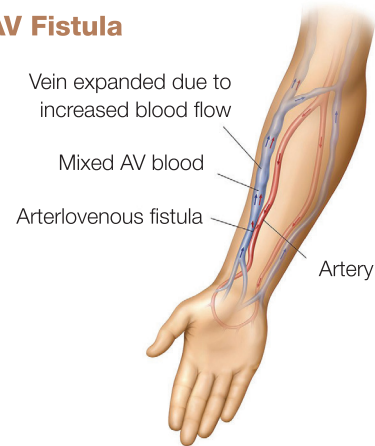
## WHY IS VASCULAR ACCESS IMPORTANT

- It enables you to carry out dialysis, which is your lifeline
- Proper access will help you to have adequate dialysis
- Adequate dialysis helps to improve your quality of life

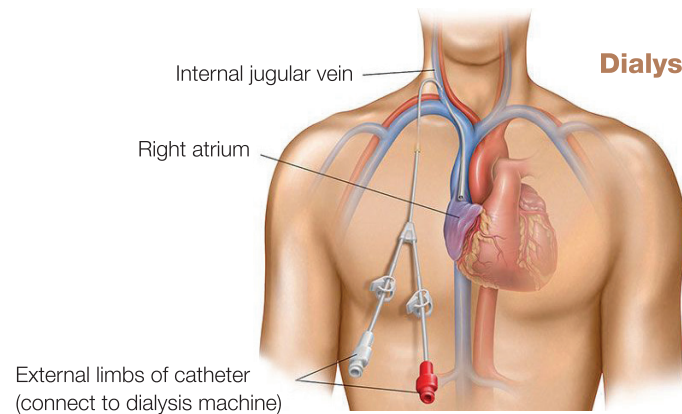
### AV Graft



### AV Fistula



### Dialysis Catheter



## AV FISTULA AND AV GRAFT

### Some important points to take note after creation of fistula or graft

- Follow doctor's instructions (dressing, stitch removal, etc)
- You may experience some pain/swelling at the operation site, and it will subside gradually
- Takes about 4-6 weeks for the vein to mature before cannulation
- Do feel the buzz by placing the palm near the operation
- site before going to sleep and after waking up from sleep
- Do not carry heavy objects with the hand that has been operated on
- Do not wear restrictive/tight clothing or accessories
- Do not take blood pressure readings on the operated arm
- Exercise with a stress ball once the pain/swelling subsides

## WHAT TO EXPECT ON YOUR FIRST CANNULATION

- Bleeding may occur (a nurse will teach you how to manage)
- Always apply pressure with gauze for 10-15 mins after dialysis
- Ensure there is no bleeding before you go home
- Remove the dressing after 4-6 hours following cannula removal



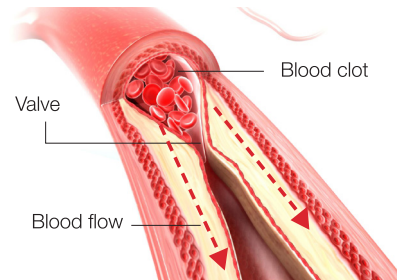
- Cannulation will be carried out by an experienced nurse
- You may experience pain upon cannulation
- Refrain from moving your hand vigorously during dialysis
- Cannulation may take more than once to be successful
- Some bruises/swelling can be expected over time



## POSSIBLE COMPLICATIONS OF VASCULAR ACCESS

### Types of complications

- Infection
- Thrombosis (blood clots in blood vessels)
- Excessive bleeding



### Signs & symptoms of infection

- Pain/tenderness
- Odour
- Fever
- Discharge/stained dressing of catheter
- Redness at vascular access site



## HOW TO PREVENT VASCULAR ACCESS COMPLICATIONS

### How to prevent infection

- Keep catheter site clean & dry
- Wash hands and access arm at the dialysis centre (DC) prior to cannulation
- Do not apply powder or lotion to the cannulation area
- Do not scratch the access arm, especially the cannulation area

### How to prevent thrombosis (blood clots) in the fistula

- Listen for the gushing sound and feel for the buzz twice a day
- If absent, inform your DC and you may be asked to go to the hospital's Accident & Emergency (A&E) department
- Do not carry heavy objects with the access hand
- Do not wear any jewellery or watch on the access hand as this may obstruct the flow
- Do not carry out blood pressure measurement & venepuncture on the access arm

### How to stop bleeding

- Apply direct pressure to the bleeding site with gauze or towel for 15 minutes
- If bleeding persists, go to A&E immediately and inform the DC nurse
- Change to a lighter dressing when bleeding has stopped

## CATHETER

### Know your type of catheter



Femoral vein tunneled dialysis catheter (groin)



Internal jugular vein tunneled dialysis catheter (chest)

### When taking a bath



#### Do

- Cover the catheter site with plastic sheet or waterproof material while showering
- Wipe the surrounding area with a towel
- Be more careful while washing your hair

#### Don't

- Get the area wet



### When taking care of catheter



#### Do

- Keep the site clean & dry
- Ensure dressing is intact at all times
- Ensure catheter caps/limbs are covered at all times
- If it is wet, you may have the dressing changed at the DC

#### Don't

- Apply powder or lotion to the surrounding area
- Scratch the dressing site
- Swim
- Wear tight clothing
- Tug or pull on the catheter
- Perform vigorous exercise/movements



## WHAT YOU SHOULD DO IF THE CATHETER'S DRESSING IS EXPOSED

- Always use an emergency kit
- Wash your hands
- Use the gauze from the emergency kit
- Cover the site with a piece of gauze
- Secure with medical tape
- Inform your DC nurse

## WHAT YOU SHOULD DO IF THE CATHETER SITE BLEEDS/ IS DISLODGED

- Apply direct pressure using a piece of gauze
- Call an ambulance (995) or go to the A&E immediately



**FLUID  
MANAGEMENT**

## WHY YOU SHOULD LIMIT YOUR FLUID INTAKE

- When kidneys fail, they are unable to produce as much urine as before
- If large amounts of fluid are consumed, this will be retained in the body if not excreted through urine or removed by dialysis

## WHAT WILL HAPPEN IF YOU DRINK TOO MUCH FLUID



Cramps



Headache



Swelling



Shortness of breath



High blood pressure



Weak and tired heart

## FIND OUT HOW MUCH YOU CAN DRINK IN A DAY

I'm still passing urine

Yes

No



Haemodialysis patients:

500ml of fluid intake

+

Urine output in ml



You can drink about

ml

of fluid in a day

## LOOKS FAMILIAR? GUESS HOW MUCH VOLUME IT HOLDS!



Water bottle  
500ml



Plastic cup  
370ml



Mug  
300ml



Medium size rice bowl  
300ml



Kopi cup  
230ml



Medicine cup  
30ml



Ice cube  
30ml



Chinese soup spoon  
30ml



Tablespoon  
15ml

## LIMITING SALT INTAKE HELPS TO CONTROL YOUR THIRST

Fluid that you drink



Salt in your diet



With less or no urine output



between dialysis sessions

Over retention of fluid and salt will  
cause swelling of your body



**Salt makes your body retain water**  
Limiting salt helps to control your thirst!



# LET'S LEARN SOME TIPS TO REDUCE SODIUM INTAKE

## When eating at home



Explore using herbs and spices in cooking



Taste your food first before adding more condiments



Choose fresh, say "no" to processed food



When buying groceries, look out for the Healthier Choice Symbol

## When eating out



Ask for less salt



Ask for less or no gravy



Avoid finishing or drinking the soup



Choose plain over flavoured rice



Ask for sauces to be served on the side

## TIPS TO CONTROL FLUID INTAKE



Use a water bottle which has markings to keep track of your daily intake



Plan the amount needed for medications



Use smaller cups



Suck on ice cubes, cold fruits or lemon wedges



# FALL PREVENTION

## WHY IS FALL PREVENTION IMPORTANT



- Falls may cause you to miss dialysis sessions



- Falls may cause hospitalisation due to extensive bruising and broken bones



- Falls may require you to be dependent on others for daily activities such as toileting and showering



- Falls may lead to high medical costs

## BEFORE AND AFTER A FALL

### Before a fall...

- Happiness
- Independence
- Freedom
- Exercise
- Carrying out daily activities
- Spending time with your loved ones



### After a fall...

- Pain
- Fractures
- Muscle loss
- Financial burden
- Loss of independence
- Rehabilitation
- Wheelchair/walking assistance
- Decreased quality of life

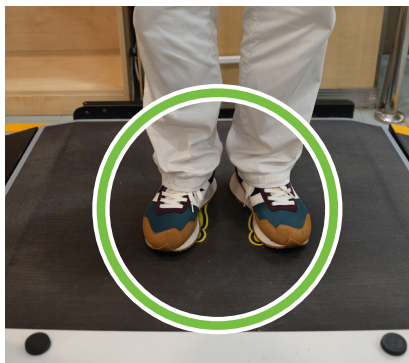


## HOW TO PREVENT FALLS IN THE DIALYSIS CENTRE



- Use walking aids if needed
- Don't rush
- Wait for assistance if you feel unwell (e.g. giddiness)
- Be careful
- Be alert
- Use proper footwear

### When measuring weight



- Always wear covered footwear and keep your footwear on (footwear weight will be deducted)
- Diabetes mellitus (DM) shoes are highly recommended and do check with your doctor for a prescribed footwear



- Wear slippers or sandals as it can cause balance impairment leading to high risk of falling

### Safe transfer techniques

- Ensure dialysis chairs and wheelchairs are locked before getting up or transferring
- Wait for nurses to assist you if required
- Achieve balance before transferring



### In the washroom



- Avoid walking on wet floors



- Activate the emergency cord located beside the toilet to summon for help when in need



- Utilise grab bars in washrooms to support yourself

## HOW TO PREVENT FALLS AT HOME

### Rugs

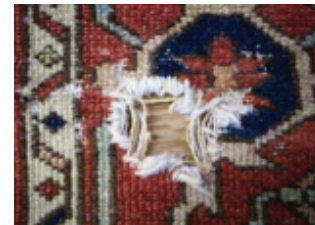
- Smoothen out rugs on floors



- Ensure mats and rugs have slip-resistant backing



- Discard all frayed rugs



### Cables

- Tuck phone cords or electrical cables out of walkways



✓ Do



✗ Don't

### Floors

- Mop up spills promptly to prevent slipping
- Ensure floors are dry before walking



### Fixtures

- Install grab bars where necessary
- Do not use wall fixtures to support yourself



✓ Do



✗ Don't



- Keep the floor clutter-free to reduce the risk of tripping
- Ensure there is adequate space between furniture for walking

### Moving safely



- Ensure your footwear has good grip



- Check if your footwear is tightly fastened



- Ensure walking space is clear before walking



- Always use your walking aids when required



- Hold on to grab bars for support when necessary

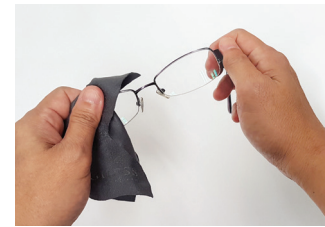
### Good eye care habits



- Wear prescribed eyewear, if needed, when moving around



- Remove reading glasses before walking or moving around as reading glasses can distort vision



- Ensure prescribed eyewear is clean for clear vision; clean your eyewear regularly



- Get your eyesight checked annually



- Seek medical advice if you experience any vision abnormalities

Night safety

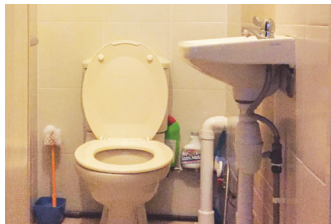


- Ensure rooms are well lit; light bulbs over 60W or LED light bulbs over 10W that produce 800 lumens are recommended

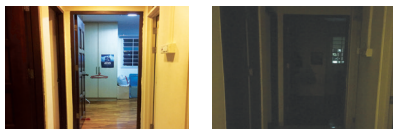


Torchlight

- If light switches are not easily accessible, having a torchlight within reach from the bed will make it safer for you to get up at night



- Always switch the lights on before entering the toilet or bathroom



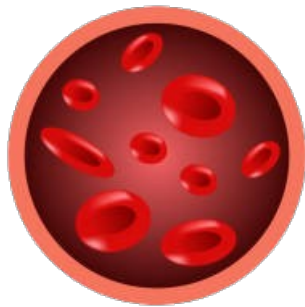
- Switch on the lights along the path to the toilet



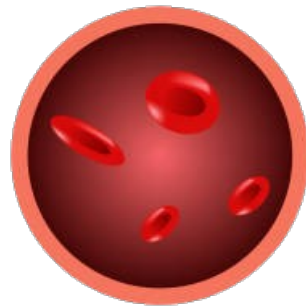
# ANAEMIA MANAGEMENT



## WHAT IS ANAEMIA

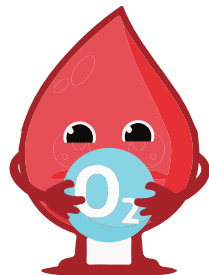
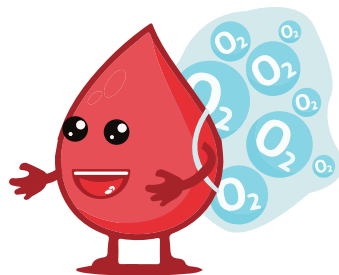


Normal



Anaemia

- Anaemia is a condition in which the body does not have enough healthy red blood cells
- The kidneys are responsible for providing a hormone called erythropoietin (EPO), which stimulates red blood cells production
- In dialysis patients, poor kidney function leads to reduced EPO production
- Hence, less red blood cells are produced, resulting in less oxygen delivered to your organs and tissues



## SIGNS & SYMPTOMS OF ANAEMIA



Pale looking



Tired and weak



Dizziness and headache



Cold hands and feet



Shortness of breath or chest pain



Trouble thinking clearly

## MANAGING ANAEMIA

### Dialysis treatment



- Do not miss any dialysis treatment
- Complete the prescribed treatment duration

### Medication



- During dialysis treatment, nurses may administer IV iron and/or EPO to stimulate your body's production of red blood cells
- Follow doctor's prescription and advice on iron intake and/or EPO injection

### Nutrition



- Approach your dietitian for a recommended meal plan that meets your specific needs

## USEFUL RESOURCES

### English

- **All about kidneys** - The National Kidney Foundation (Singapore)  
[www.nkfs.org](http://www.nkfs.org)
- **Industry-leading clinical decision support** - UpToDate  
[bit.ly/3FtnZli](https://bit.ly/3FtnZli)
- **Kidney basics** - National Kidney Foundation (US)  
[bit.ly/492nts5](https://bit.ly/492nts5)
- **Stages of kidney disease** - American Kidney Fund  
[bit.ly/3tJnvF6](https://bit.ly/3tJnvF6)
- **Haemodialysis** - National Institute of Diabetes and Digestive and Kidney Diseases  
[bit.ly/3s4WsUo](https://bit.ly/3s4WsUo)
- **Haemodialysis Access** - National Kidney Foundation (US)  
[bit.ly/494G5Yj](https://bit.ly/494G5Yj)

### Chinese

- **关于肾脏** - 全国肾脏基金会（新加坡）  
[www.nkfs.org/cn](http://www.nkfs.org/cn)
- **血液透析治疗通路的照护** - 台北荣总护理部健康e点通  
[bit.ly/3s1pdBa](https://bit.ly/3s1pdBa)
- **肾脏科** - 台大医院  
[bit.ly/3FtB7H3](https://bit.ly/3FtB7H3)
- **肾性贫血的认识与治疗** - 中国医药大学附设医院  
[bit.ly/3FpD9lq](https://bit.ly/3FpD9lq)

### Malay

- **Semua Tentang Ginjal** - Yayasan Buah Pinggang Kebangsaan (Singapore)  
[www.nkfs.org/mly](http://www.nkfs.org/mly)
- **Penyakit Ginjal Kronik & Kegagalan Ginjal** - MyHealth  
[bit.ly/471RDKo](https://bit.ly/471RDKo)
- **Hemodialisis** - MyHealth  
[bit.ly/46Yfk6a](https://bit.ly/46Yfk6a)

**NKF**

Giving Life  
& Hope

If you have any questions, please approach  
the nurses at your dialysis centre.

The National Kidney Foundation  
81 Kim Keat Road, Singapore 328836

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Let's get social



NKF Singapore