

# Starting your Treatment for Renal Insufficiency

Tips and Practical Information  
Regarding the Dialysis



# Introduction

## What is the Purpose of this Booklet?

This welcome booklet is designed to help you discover the Nephrology Department where you will receive care, to help your needs, and to inform you of the different existing treatments.

our doctor has prescribed dialysis which is a substitution treatment, that is to say a treatment replacing the kidneys' usual function.

For each and every one of you, the beginning of a dialysis treatment is a significant life change.

Our goal is to facilitate communication with you to ensure a quality treatment, as well as a life as balanced as possible.

Please don't hesitate to ask us any questions. This booklet is a useful reference and should prompt discussions. The entire staff is at your disposal to respond to your needs and concerns.



## A dedicated team at your disposal

The multidisciplinary health care team works in various service areas. It comprises:

- Doctors
- A Clinical Nurse Specialist
- Nurses
- Patient Attendants
- A Dietitian  
📞 022 376 66 58
- A Social Worker  
📞 022 685 81 71 or 078 645 62 96
- Secretaries  
📞 022 372 97 63
- A Billing Assistant  
📞 022 372 97 76
- A Technician

### Referent Doctors

- Dr. Pierre-Yves Martin,  
Chief Medical Officer of the Nephrology Department  
Site Cluse-Roseiraie, Building C, 7<sup>th</sup> floor  
Secretariat: 📞 022 372 97 62
- Dr. Patrick Saudan, Head of the Dialysis Unit
- Dr. Catherine Stoermann, Head of the Peritoneal Dialysis
- Françoise Raimbault, head nurse  
📞 022 372 97 73

# Your Treatment

## Three Substitution Methods

Nowadays, there are three ways to remedy your kidneys dysfunction.

- **Haemodialysis:** is the cleansing of toxins from the blood (produced by the body) and the elimination of water through a filter (artificial kidney).
- **Peritoneal dialysis:** is the purification from toxins and the elimination of the water through the peritoneum (the membrane lining the abdomen).
- **Transplant:** refers to a kidney transplant.

For each method, see the Fact Sheet attached to this booklet.

Before the beginning of your treatment, a clinical specialist nurse invites you to a collective or individual information/education session in order to:

- provide you with the details required to make an informed choice about your treatment
- develop your knowledge of your disease.

## Medical Visit

Once a week, a medical visit will take place. This consult is an opportunity to ask questions, to renew your prescriptions, and to report any issues. Between each session, a physician is always at your disposal.

Each month, a comprehensive blood analysis is performed, which is then followed by the visit of one of the physicians responsible for the unit, and this will allow you to discuss of the quality and effectiveness of your treatment.

## Skin Smears

In the context of the fight against infections, painless samples from the skin are performed every two months in order to optimize the quality of health care and your safety.

## Monitoring of Your Feet

Chronic renal failure, just like diabetes, requires regular monitoring. The nurse monitors your feet skin condition, and directs you, if necessary, to a specialty service.

## Your Distractions During the Haemodialysis

The Dialysis Centre provides televisions with personal headsets. If you prefer to read or listen to music, you can bring books, crossword puzzle magazines or a MP3 player.

There is a blog where you will find articles about nephrology, dialysis or transplants, where you can leave comments. This blog also contains recipes adapted to renal insufficient patients, and small questionnaires (quizzes) to test your knowledge of nephrology.

➡ [www.nephrohug.wordpress.com](http://www.nephrohug.wordpress.com)

In our unit, Wi-Fi Internet access is accessible everywhere.

During the dialysis sessions, short visits are allowed. In all cases, please talk first with the health care team. Use your mobile phone in moderation.



## Organisation

The Centre is open Monday to Saturday, from 7 am to 7:30 pm. Groups are organised according to the wishes of patients and the department's capabilities.

- Group 1: Mondays, Wednesdays, and Fridays in the morning
- Group 2: Mondays, Wednesdays, and Fridays in the afternoon
- Group 3: Tuesdays, Thursdays, and Saturdays in the morning
- Group 4: Tuesdays, Thursdays, and Saturdays in the afternoon

In each of these groups, in order to offer you optimum medical care, a time of arrival schedule will be provided to you.

### Contacts

You can contact the nurses at the following numbers:

- 📞 022 372 97 72 - Peritoneal Dialysis (6<sup>th</sup> floor)
- 📞 022 372 97 70 or 022 372 97 71 - Haemodialysis (6<sup>th</sup> floor)
- 📞 022 372 97 86 - Nephrology Consultations (3<sup>rd</sup> floor)

### When Does the Dialysis Start?

The beginning of your dialysis is not determined by your time of arrival, but by:

- Your medical condition
- The duration of the dialysis session
- The availability of the dialysis machines.

### Tip +

Before the beginning of your treatment, please wait in the waiting room. As soon as the dialysis is possible, an assistant nurse will invite you to take your place in the room.

### Administrative procedures

The admission formalities are carried out on the first day. It is important that you have with you an ID document and your health insurance card. Therefore, please inform the health care staff of any change (work status, family situation, address, telephone number, health insurance, etc.).

# Practical Information

## Reimbursement

The treatment is covered by your health insurance company and you must cover only 10% of the fees, up to a maximum of CHF 700 per year, less your deductible.

The invoice is sent depending on the agreement with your insurance company. Sometimes it is sent directly to the SVK, to your insurance company, or to your own address. Only an additional insurance will reimburse your travel expenses by taxi or your medical transport expenses. Please talk to your insurance company for more information. If you have any questions, please contact our Billing Assistant, at ☎ 022 372 97 76, Monday to Friday from 7:30 am to 4 pm.

## Support

- Association Genevoise des Insuffisants Rénaux (AGIR), ☎ 079 396 69 19
- Entr'aide Rein (patient groups), ☎ 022 343 70 30

## Treatment

HUGs work with many dialysis centres. When your health is stabilised, the Head Nurse of the unit may direct you toward a dialysis centre adapted to your health care and treatment needs, taking into account your wishes, constraints and availability. This can cause hourly changes in your treatment.

## Where Are the Other Canton Dialysis Centres Located?

- Hôpital de la Tour  
Avenue J.-D. Maillard 3, 1217 Meyrin, ☎ 022 719 66 11
- Groupe médical d'Onex  
Route de Loëx 3 bis, 1213 Onex, ☎ 022 879 50 77
- Champel - MV Santé  
Avenue de Champel 42, 1206 Genève, ☎ 022 839 34 74

## Tip +

### Changing Room

For dialysis, it is recommended that you wear comfortable clothing (sleeves that are not tight). Key lockers are at your disposal (close yours and keep the key with you). If necessary, we can lend you a hospital gown.

## Tip +

### Holiday

To schedule your holidays, please note that we have available brochures on different dialysis centres located around the world.

## In Case of Issues or Delays

Monday to Saturday, 7 am to 7 pm, at ☎ 022 372 97 71.

At any other time, please call:

- the hospital's switching centre at ☎ 022 372 33 11 and ask them to put you through the nephrologist on call
- the emergency department at ☎ 022 372 81 20

If you go to the emergency department, upon arrival, please ask them to inform the nephrologist on call.

## Address

### Nephrology Department

Rue Gabrielle-Perret-Gentil 4, 1205 Genève  
Building C, 6<sup>th</sup> floor, Haemodialysis Unit:

☎ 022 372 97 70 or 022 372 372 97 71

Building C, 6<sup>th</sup> floor, Peritoneal Dialysis Unit:

☎ 022 372 97 72

Building A, 3<sup>rd</sup> floor, Out-patient Consultations and  
Follow-up of Transplant Patients: ☎ 022 372 97 86

## Access

Bus 1, 5 and 7, "Hôpital" stop

Bus 3, "Claparède" stop

Bus 35, "Entrée-Hôpital" stop

Tram 12 and 18, "Augustins" stop

Parking Lombard (paid)

A parking spot can be arranged for you, and a badge will be provided for you. For more information, please contact the Secretary at ☎ 022 372 97 63.

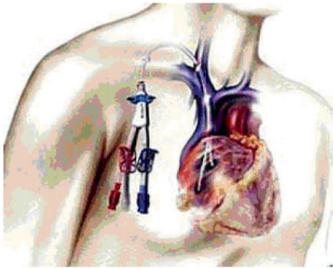
If you have a transport-related issue, please contact the social worker who can help you.

This document was created by Magali Lacroix, specialised nurse, Nephrology Department, with the assistance of Marie-Genève Droulez, retired, Nephrology Department, and Michel Thériault, RS, Department of Internal Medicine. Prepared by: HUG Publications Service.

# The central venous catheter

## Definition

The catheter is a soft hollow plastic tube that the doctor inserts in the vein of the neck (the jugular vein), chest (subclavian vein) or groin (femoral vein). Inserted temporarily or permanently, it serves as access for performing a dialysis.



## Temporary catheter

It can be used immediately after placement. Reserved to hemodialysis procedures, this catheter may be used temporarily in emergency cases or until the creation of a fistula.

It can be maintained from 10 days to 3 weeks. It is placed under local anesthesia by experienced nephrologists. The operation lasts from 30 to 45 minutes. A dressing is thereafter placed and must be permanently kept.

At the end of the procedure, X-ray control may be performed to check the position of the catheter in the vein.

## Tunneled catheter

This catheter constitutes a permanent access for the dialyzer, when all possibilities of creating fistulas were eliminated. The permanent catheter is inserted in the operating site, under local anesthesia, by experienced nephrologists. During the placement, a tunnel is made under the skin in order to reduce as much as possible the risks of infection.

The intervention lasts about one hour. A dressing is then placed and should not be removed.

An X-ray control shall be made after the placement in order to check its positioning.

### Monitoring and healthcare recommendations

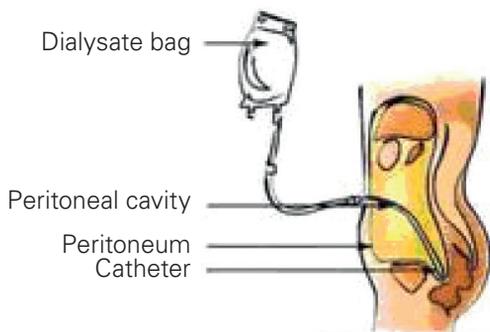
They are valid for the two types of catheters:

- make sure that your dressing is replaced at each dialysis
- do not moisten the catheter dressing (adapted hygiene care)
- keep at all times the dressing clean and closed
- avoid pulling on the catheter
- in case of pain, temperature, itching and/or discharges at the catheter level, immediately alert your hemodialysis center (according to the emergency procedures).

# Peritoneal dialysis catheter

## Definition

A soft plastic catheter is surgically implanted, under general anesthesia, in your abdomen at the level of your navel.



A portion of the catheter (about 30 cm) remains outside your body and is easily hidden under the clothes. It ensures the link-up between your body and the dialysate bags. A preparation of the skin and possibly an intestinal one need to be performed 48 hours before the insertion of the catheter.

# Insertion of the catheter

## The Hospital Stay

The insertion of the peritoneal dialysis catheter takes about one hour. Before returning to your room, you will spend a few hours in the recovery room.

You will be lying down for 24 hours in order to prevent the catheter from moving. A control abdominal X-ray shall be then taken. The hospital stay will last from 48h to 72h.

It takes two weeks for the catheter to heal before being able to use it. Then you may commence the treatment.

## Catheter monitoring

A dressing protects the hole of the catheter. It is renewed at least every two days and must be kept dry.

Bathtubs and swimming pools are forbidden due to the risk of bacteriologic contamination. In exchange, showers and sea bathing are allowed.

The hole should be carefully monitored and at the least sign of pain, itching, temperature, redness, discharge, you should immediately alert you dialysis center (cf. emergency procedures).

# The peritoneal dialysis

## Definition

Peritoneal dialysis is a method that uses the peritoneum (abdominal membrane) as a filter to clean the blood of toxic substances.

## Method and objective

A fluid called dialysate is introduced, through a catheter, into the abdominal cavity in order to rebalance the blood plasma. Its components prompt the elimination of excess water and toxic substances produced by the body.

## Self-treatment at home

The benefit for the patient is that he/she is independent and remains at home. As a first step, you learn the method at the hospital.

The gestures of bag connection and disconnection to/from the catheter should be subject to rigorous hygiene.

There are two methods of peritoneal dialysis:

- continuous ambulatory peritoneal dialysis
- automated peritoneal dialysis.

## Two methods

### **Continuous ambulatory peritoneal dialysis (manual exchange) or CAPD**

CAPD is a method that requires 4 to 5 exchanges of dialysate bags per day, in accordance with doctor's instructions. Each bag exchange takes about 30 minutes.

In a first stage, you let the liquid full of toxic substances and excess water go through the catheter out of your abdominal cavity in an empty bag. Then, you fill again the abdominal cavity with dialysate coming from a pre-heated bag. This liquid will remain in your abdomen until the following bag exchange.

You may choose among different devices facilitating the connections; if necessary, you may ask for the help of a family member or a nurse.

### **Automated Peritoneal Dialysis (with a machine) or APD**

APD is a method that enables you to conduct dialysis overnight at your home. Every evening, you connect to a peritoneal dialysis machine which automatically performs the exchanges during the night. In the morning, you disconnect and can go about your daily activities.

### **Treatment follow-up**

Your training nurse will come to your home to install the material and perform the first exchange with you. Every month you will have a medical visit scheduled in order to assess the quality of your treatment.

# The Fistula

## Definition

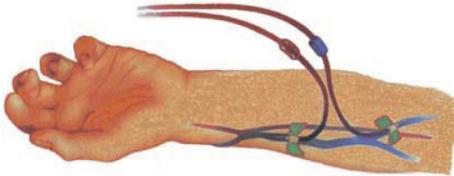
A fistula is surgically created by connecting an artery and a vein in the arm. The vein (superficial, and easily accessible) will therefore be arterialised.

Thus, its size increases, its wall thickens and it becomes visible under the skin. And this facilitates the puncture and the pumping of a sufficient amount of blood (300 ml/minute).

The passage of blood through the fistula is perceived upon palpation as a quiver (also called «thrill»).

The arteriovenous fistula is the preferred vascular access thanks to:

- its ease of use
- its low rate of infection
- its life time of several years.



## Location

The Fistula can be located either on the forearm or on the upper arm. It is preferable to be located on the non-dominant arm, that is to say the left arm for right-handed people, and vice versa, because it is the arm least used in the everyday life.

## **The Intervention**

The intervention is performed under loco-regional anaesthesia (only the arm), in the operating theatre. It lasts about one hour.

At any time, you can contact the nurse and advise of any discomfort.

In rare case, the intervention is performed under general anaesthesia.

## **The Hospital Stay**

Upon your return from the operating theatre, the nurse will be monitoring your bandage and the proper operation of your fistula. The creation of the latter requires a 24 hours hospitalisation.

The fistula requires a few weeks or even a few months to develop properly, namely to set a flow rate which is sufficient for the haemodialysis. The proper operation of your arteriovenous fistula is a determining factor of the effectiveness of the dialysis. It is therefore very important to take precautions to protect your fistula, in order to keep it in the best possible condition.

## Monitoring

Every day:

- Check the vibration of your fistula: you should feel a thrill upon touching
- Note any change: if the vibration is low or absent, if the skin condition is changed (pain, redness, discharge), you must immediately notify your Dialysis Centre.

## Precautions To Be Taken

You must avoid:

- wearing a watch, a bracelet or clothing that is too tight on the side of the fistula, so that they do not interfere with the blood flow
- pressing on the fistula arm when you lie down in order to not to apply pressure
- carrying items that are too heavy (suitcases, bags, etc.) with the arm where the fistula is placed
- tattoos and acupuncture
- exposing your fistula to the sun without sunscreen.

Do not allow that they measure your blood pressure or draw blood from the arm where the fistula is placed.

## Recommendations

The arteriovenous fistula is the preferred vascular access. It is therefore important to protect it against any risk for trauma:

- It is better to wear clothing with long sleeves in order to protect your fistula against injuries that could cause an infection, especially if you have cats, or if you do gardening or craft projects
- Every day, clean the skin and the fistula area with soap and water and apply a moisturising cream
- Before the haemodialysis session, wash the arm where your fistula is located with soap and water and the nurse will disinfect the puncture sites with an antibacterial solution
- After your treatment, bandages are applied over the puncture sites, and they need to be removed 4 to 8 hours afterwards. It is possible that the fistula starts bleeding through the hole of a puncture site, first of all, don't panic! Just press on this hole with dressing gauze for 10 minutes and change the bandage.

# Hemodialysis

## Definition

Hemodialysis is a method of mechanically cleansing your blood outside the body.

The blood is carried by means of a machine to a filter which removes the toxins and excess water. After passing through this circuit, the filtered blood is returned to the body. In order to be able to access your blood, we use a vein of sufficient flow, being suggestively known as “vascular access”.

There are two types of vascular access:

- the arteriovenous fistula (see data sheet)
- the central venous catheter (see data sheet).

## Frequency

The sessions are held three times a week and last from 3 to 5 hours. The session length depends on your height, the weight gained between each session and your blood results.

## The conduct of a session

### Assessing the weight gain

A hemodialysis session begins and ends with a weighing. The scales are the most reliable tools to assess the variation of weight between two sessions.

The weight gain is the amount of liquid that was not eliminated by your kidneys (water, tea, coffee, fruits, etc.). The higher it is, the more difficult the session will be to bear (risk of cramps, fatigue and hypotension).

It is recommended for the weight gain between two sessions to be less than 5% of the body weight.

### Liquid intake

- If you still urinate, the amount of liquids consumed every day may exceed by 500 ml the total amount of urinary output over the last 24 hours. For example, if your urinary output during 24 hours is 1,000 ml, the authorised daily quantity of beverages is  $1,000 \text{ ml} + 500 \text{ ml} = 1,500 \text{ ml}$ .
- If you suffer from anuria (absence of urine), said quantity should not be higher than 750 ml/ 24 hours.

# Installation

## Several types of machines

When the time comes, the assistant nurse or the nurse will help you install at the place you are assigned for the session. We make available several types of machines (generators).

You may be assigned a different machine than the one used in the previous session, but this would not interfere with your treatment. Thus you should not be surprised or concerned when you are assigned a different place.

## Nurse's role

A nurse will take care of you throughout the session. She monitors your parameters (blood pressure, beat, blood sugar, etc.), as well as the good conduct of dialysis in accordance with the medical prescriptions.

Your cooperation is required in order to have the quality of your care improved: please notify all signs and symptoms you experienced at home, as well as during your sessions (dizziness, headache, oedemas, cramps, vomiting, diarrhea, pain, fatigue).

The nurse answers your questions and keeps you in touch with the professionals. She always accompanies the doctor during his visits.

# What to eat before and during the dialysis

## Snacks and dietetic food

A light meal is recommended before your dialysis. At the beginning of the session you can have a snack, as previously prepared by the nutritionist.

You are allowed to bring your own snacks. Usually limited food (banana, grapes, chocolate, etc.) may be ingested during the first hour of your treatment.

However, eating during dialysis increases the risk of hypotension, especially in elderly and diabetic patients.

Be careful and get advice from the nurse.