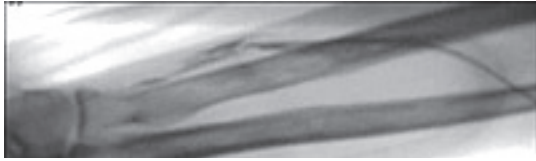


## Thrombolysis

Below is a picture of a clotted fistula. Notice that the fistula is not visible due to a bloodclot blocking the bloodflow.



If a fistula becomes clotted or thrombosed, pronounced “throm-boast”, blood can no longer flow through it, thus making dialysis impossible. The doctor may be able to remove the clot and restore blood flow.

Needles, similar to those used in dialysis are inserted and medicine to dissolve the clot is injected. Similarly, a device may be inserted to break up the clot & remove it from your access. The doctor will determine which technique to use.

Usually a narrowed vein caused the clotting and you are usually then given venous angioplasty to treat the narrowed portion of your fistula.

## After the Procedure

*Contact the interventional radiologist's office immediately if you begin to bleed more than just oozing or you notice bright red blood!*

If there is a small amount of blood on the band aids, there is no need to be alarmed. This is normal. You may remove the band-aid and replace it with a new one several hours after your procedure.

If there is no oozing, you may remove the band aid completely.

Keep the sites clean and dry.

You may notice tenderness or a small knot at the puncture sites. These will disappear over several weeks.

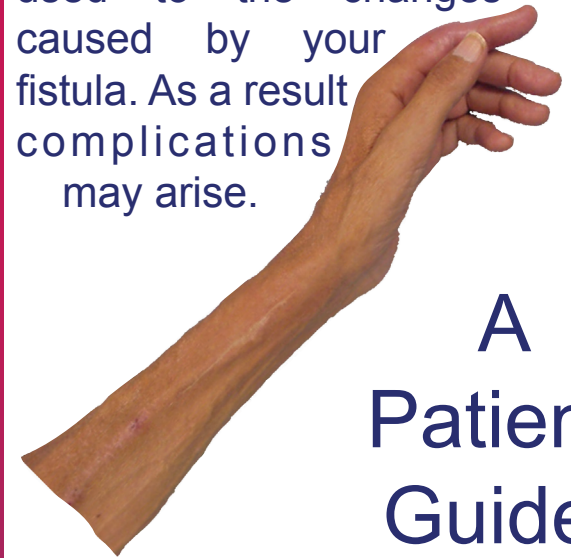
Report a temperature, pus or redness to your staff, these are signs of infection.

Notify your providers as soon as you notice your access has clotted, time is of the essence!

## **Fistula Complications: Stenosis & Thrombosis**

## **Non-surgical Interventions**

Your body may not be used to the changes caused by your fistula. As a result complications may arise.



## **A Patient Guide**

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NETWORK 12



**FISTULA FIRST**  
National Vascular Access  
Improvement Initiative

## Stenosis and Thrombosis



The continual force of blood rushing through your veins from your fistula can cause narrowing or stenosis, pronounced “sten-oh-sis” in your fistula. Another complication due to high blood flows is the formation of scar tissue inside your fistula. This scar tissue formation is sometimes referred to as “intimal hyperplasia”, pronounced “in-tim-all high-per-play-sha”. This condition can lead to decreased blood flows in your fistula or even clotting of your fistula from a blood clot. If either occurs, dialysis may not be possible and your renal treatment team may schedule you an appointment with a doctor called an interventional radiologist, pronounced “in-ter-ven-shun-ul raid-ee-aw-low-gist”. This doctor may perform angioplasty, pronounced “an-gee-oh-plas-tee”, or thrombolysis, pronounced “throm-bow-lie-sis” to allow your fistula to work correctly.

## What is Interventional Radiology & Angiography?

Interventional radiology offers an alternative to surgery and has many patient benefits. Patients experience a reduction in pain and risks, a decrease in recovery times and costs as well as a reduction in hospitalizations. Most procedures can be done on an “outpatient” basis so no hospital stay is required.

Angiography, pronounced “an-gee-aw-gra-fee”, is an x-ray study of arteries. It is used to look at abnormalities in the blood vessels, such as narrowing or blockages, blood clots, and aneurysms, pronounced “an-your-is-m’s”. It helps the doctor determine the best treatment for you.

## Venous Angioplasty



The red arrow shows stenosis in this patient's hemodialysis access. Venous angioplasty may be used to restore the bloodflow through the fistula.

Venous angioplasty is a procedure to open and preserve the working of a fistula due most typically to stenosis. During this procedure, the doctor guides a small wire through your fistula while using an x-ray machine to “see” the vein and wire while he works. Once he is able to “see” the area that is narrowed, he inserts a small tube over the wire. A tiny balloon is attached to the tube and advanced to the narrowed portion. The balloon is inflated to deflated to open the narrowing. The procedure is done through a needle puncture similar to your routine dialysis treatment. No hospital stay is usually required.