

# 2018 Vascular Access for Hemodialysis Symposium

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New Orleans, LA



# The Minute Check: Novice to Expert Level for Health Care Professionals (AVF/AVG/CVC)

*Nancy Foss, RN, CNN*

*Disclosure: Clinical Improvement Director  
DaVita, Inc.*



# Educational Need/Practice Gap, Objectives and Expected Outcomes

Practice Gap: Lack of a simple standardized access check

Objective: Describe the simple One Minute Check for AVF/AVG or Catheter

- Expected Outcome: Demonstrate the One Minute Check (during the hands-on portion)

# Access Monitoring



# Caring for their Lifeline for a Lifetime

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## **Access Monitoring**

- KDOQI defines monitoring, as “applying physical examination techniques to detect access dysfunction”
- When done correctly, monitoring can identify most access dysfunction

# Seminars in Dialysis

## Physical Examination of the Dialysis Vascular Access

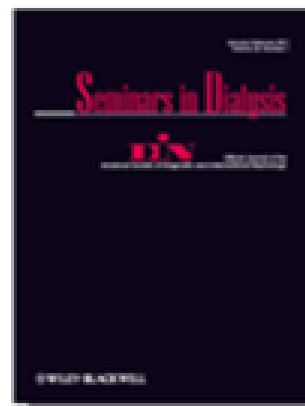


Gerald A. Beathard<sup>\*</sup>

Issue

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Seminars in Dialysis

Volume 11, Issue 4, pages  
231–236, July 1998

# Access Monitoring: Dialysis Care Team

**Look**



**Listen**



**Feel**



**Arm Elevation Test  
(AVF Only)**



**Augmentation Test  
(Optional)**



[www.esrdncc.org](http://www.esrdncc.org)

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It only takes a minute  
to save your patient's lifeline.



The skin over the access  
is all one color and looks like  
the skin around it.

### Look



There is redness,  
swelling or drainage.  
There are skin bulges with  
shiny, bleeding, or peeling skin.

### Listen



Bruit - the hum or buzz should sound  
like a "whoosh," or for some may sound  
like a drum beat. The sound should be  
the same along the access.

There is no sound, decreased  
sound or a change in sound.  
Sound is different from what a  
normal Bruit should sound like.

### Feel



Thrill: a vibration or buzz in the  
full length of the access.

Pulse: slight beating like a heart-  
beat. Fingers placed lightly on the  
access should move slightly.

Pulsatile: The beat is stronger than  
a normal pulse. Fingers placed  
lightly on the access will rise and  
fall with each beat.

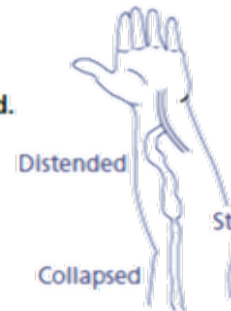
### Upper Arm AVF

The AVF outflow vein partially  
collapses when the arm is raised  
above the level of the heart.  
It may feel "flabby" when palpated.

### Lower Arm AVF

The AVF outflow vein collapses  
when arm is raised above  
the level of the heart.

### Arm Elevation



### Upper Arm AVF

The AVF outflow vein does not  
partially collapse or become "flabby"  
after being raised above the level of  
the heart. This finding should be  
reported to an expert clinician.

### Lower Arm AVF

The AVF outflow vein does not  
collapse after being raised above the  
level of the heart. This finding should  
be reported to an expert clinician.

**It only takes a minute  
to save your patient's lifeline.**



# Look



The skin over the access is  
all one color and looks  
like the skin around it.



*Good to go!*



There is **redness, swelling  
or drainage.**

There are **skin bulges  
with shiny, bleeding, or  
peeling skin.**



*Contact expert clinician  
if any "stop" signs noted.*

It only takes a minute  
to save your patient's lifeline.



# Listen (Stethoscope Bruit)



The hum or buzz should sound like a "whoosh," or for some may sound like a drum beat. The sound should be the same along the access.



*Sounding good!*



No sound or decreased sound.  
Change noted.  
Sound is **different** from what a normal BRUIT should sound like.



*Contact expert clinician if any "stop" signs noted.*

It only takes a minute  
to save your patient's lifeline.



## Feel



**Thrill:** a vibration or buzz in the full length of the access.

**Pulse:** slight beating like a heart-beat. Fingers placed lightly on the access should move slightly.



*Good to go!*



**Pulsatile:** The beat is stronger than a normal pulse. Fingers placed lightly on the access will **rise and fall with each beat.**



*Contact expert clinician if any "stop" signs noted.*

It only takes a minute  
to save your patient's lifeline.



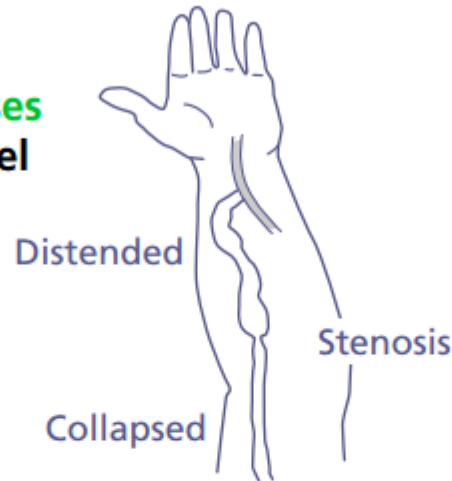
# Arm Elevation Test

## Upper Arm AVF

The AVF outflow vein **partially collapses** when the arm is raised above the level of the heart. It may feel "flabby" when palpated.

## Lower Arm AVF

The AVF outflow vein **collapses** when the arm is raised above the level of the heart.



*Good to go!*



## Upper Arm AVF

The AVF outflow vein **does not partially collapse** or become "flabby" after being raised above the level of the heart.

## Lower Arm AVF

The AVF outflow vein **does not collapse** after being raised above the level of the heart.



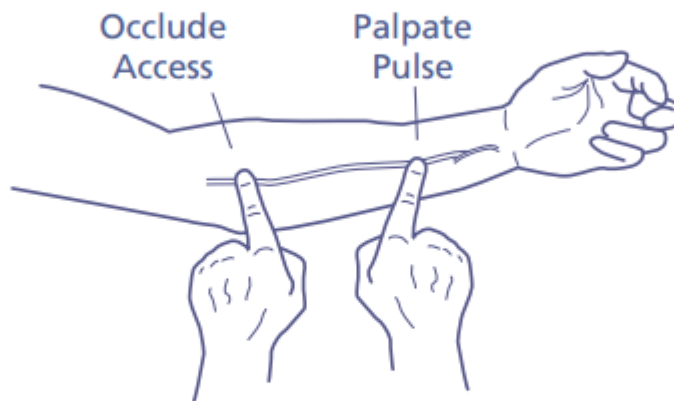
*Contact expert clinician  
if any "stop" signs noted.*

It only takes a minute  
to save your patient's lifeline.



# Augmentation Test

Place your fingers on the out-going vein, feel the pulse, press down until no blood is flowing through the access. Keep your finger on the vein and feel for the pulse on the lower part of the access.



Pulse should be **"strong and bounding"** and may cause your finger to **rise and fall** with each beat.



**Good to go!**

Pulse **does not** become more forceful or **"strong and bounding"**.



**Contact expert clinician if any "stop" signs noted.**



# Access Monitoring: Patient

**Look**



**Listen**



**Feel**



# Look

The skin over your access is all one color and looks like the skin around it.



There is **redness**, **swelling** or **drainage**. There are **skin bulges** with **shiny**, **bleeding**, or **peeling** skin.



*Looking good!*



*Contact your dialysis care team if you notice any "stop" signs!*

# Listen

When you place your access next to your ear, you hear a sound. And it **sounds the same as the last time** you checked it.



You place your access next to your ear and hear **no sound**. Or it **sounds different** than it did the last time you checked it.



*Sounding good!*



*Contact your dialysis care team if you notice any "stop" signs!*

# Feel

**Thrill:** a vibration or buzz in the full length of the access.

**Pulse:** slight beating like a heartbeat. Fingers placed lightly on the access should move slightly.



**Pulsatile:** The beat is stronger than a normal pulse. Fingers placed lightly on the access will **rise and fall** with each beat.



*Good to go!*



*Contact your dialysis care team if you notice any "stop" signs!*

# One Minute Catheter Check Dialysis Care Team



# It only takes a minute to check your patient's catheter.

## Dialysis Care Team:

- Perform catheter check at each treatment or when patient reports a change.
  - Reinforce importance of daily catheter check to patient.
  - Listen to the patient.

### Look



### Listen



### Feel



**Were there any abnormal findings during the catheter check?**

**No**

Document that there were no abnormal findings.

**Yes**

Report and document findings per facility policy and procedure.

# Check before you connect.

## Look

### CATHETER:

- No cracks in the tubing.
- The caps are on the ends of the tubes.
- The cuff is not coming out of the skin.

### EXIT SITE:

- No redness, drainage, bleeding, or exposure of the cuff.



*Good to go!*



### CATHETER:

- Any problem with tubing.
- Hubs are exposed or dirty.
- Cuff is coming out of the skin.

### EXIT SITE:

- Red, draining, or bleeding.
  - Cuff is exposed.
  - A stitch is still in place.  
(Check if it can be removed.)
- The skin over the tunnel is red.



*Report and document  
findings per facility  
Policy and Procedure.*

*A Bridge to Your Lifeline*



# Check before you connect.

## Listen

Listen to your patient  
and be sure to ask  
questions.



- Does the patient think they may have a fever?
- Has the patient noticed anything different with their catheter since the last dialysis treatment?
- *If the answer is "No..."*



*Good to go!*

- Patient reports or has a fever.
- Patient reports something is different with their catheter.
- Patient reports a problem with their catheter.



*Report and document  
findings per facility  
Policy and Procedure.*



# Check before you connect.

## Feel

Press lightly on the area over the tunnel, away from the exit site.

- No pain upon pressing.
- No drainage coming from the exit site.
  - The area over the tunnel feels no warmer than the surrounding area.



- Pain and/or drainage from the exit site when you press lightly on the area over the tunnel.
- The area over the tunnel is warmer than the surrounding area.



*Good to go!*



*Report and document findings per facility Policy and Procedure.*

**It only takes a minute to check your patient's catheter.  
Check before you connect.**



**Look**

Look at the CATHETER to make sure:

- There are no cracks in the catheter tubing.
- The caps are on the ends of the catheter tubes.
- The catheter cuff is not coming out of the skin.

Look at the EXIT SITE to make sure there is no:

- Redness
- Drainage
- Bleeding
- Exposure of catheter cuff

Check the skin over tunnel for redness.



- If you think there is a problem with the catheter tubing.
- If the catheter hubs are exposed or dirty.
- If the catheter cuff is coming out of the skin.
- If the exit site is red, draining or bleeding.
- If the cuff is exposed.
- If a stitch is still in place:  
Check to see if it can be removed
- The skin over the tunnel is red.

**Listen**

Listen to the patient and be sure to ask:

- If they think they might have a fever.
- If they have noticed anything different with their catheter since the last dialysis treatment.



- If the patient reports or has a fever.
- If the patient reports something that is different with their catheter.
- If the patient reports a problem with their catheter.

**Feel**

Press lightly on the area over the tunnel away from the exit site.

There should be no:

- Pain
- Drainage coming from the exit site

The area over the tunnel should not feel warmer than the area around it



If there is:

- Pain and/or drainage from the exit site when you press lightly on the area over the tunnel.
- If the area over the tunnel is warmer than the area around it.

# One Minute Catheter Check Patient



**It only takes a minute to check your catheter.**

**Check your catheter every day.**

**Look**



**Feel**



**Did you notice anything different  
when you checked your catheter today?**

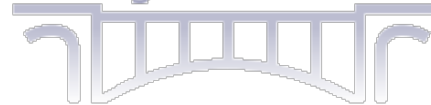
**No change.**



**Yes, a change.**



*A Bridge to Your Lifeline*



# Look

It is **clean and dry**,  
and it **covers the exit site**  
(the place where  
the catheter comes out  
of your skin)



*Looking good!*

Look at your  
catheter dressing  
in the mirror.



*A Bridge to Your Lifeline*



The dressing **does not**  
**cover the exit site**,  
it is **wet or dirty**,  
there is **blood or pus**  
on the dressing.



*Contact your dialysis  
care team if you notice  
any "stop" signs!*

# Feel

*Do not remove the catheter dressing!*  
Feel over the  
dressing.



It is **dry** and there is  
**no pain** in the area  
under the dressing.



*Good to go!*

The catheter dressing is **wet**,  
you have **pain** in the area  
under the dressing,  
**something feels different**,  
or you think you have a **fever**.



*Contact your dialysis  
care team if you notice  
any "stop" signs!*

*A Bridge to Your Lifeline*



- Empower patients to care for their access
- Teach by example – monitor their access *every treatment*
- Use materials that are visual, easy to read and that provide specific actions for the patient

**It only takes a minute to save your lifeline.**

**Look**

The skin over your access is all one color and looks like the skin around it.

**GO**

**Listen**

When you place your access next to your ear, you hear a sound. And it sounds the same as the last time you checked it.

**GO**

**Feel**

**Thrill:** a vibration or buzz in the full length of the access.  
**Pulse:** slight beating like a heart-beat. Fingers placed lightly on the access should move slightly.

**GO**

There is redness, swelling or drainage. There are skin bulges with shiny, bleeding, or peeling.

**STOP**

You place your access next to your ear and hear no sound. Or it sounds different than the last time you checked.

**STOP**

Pulsatile: The beat is stronger than a normal pulse. Fingers placed lightly on the access will rise and fall with each beat.

**STOP**

**If you notice any of the red "stop" signs during your daily access check, follow these instructions IMMEDIATELY:**

Contact: \_\_\_\_\_

During regular facility hours \_\_\_\_\_

After hours \_\_\_\_\_

**It only takes a minute to check your catheter.**

*A Bridge to Your Lifeline*

**Look**

Look at your catheter dressing in the mirror.

It is clean and dry, and it covers the exit site (the place where the catheter comes out of your skin).

**GO**

The dressing does not cover the exit site, it is wet or dirty, there is blood or pus on the dressing.

**STOP**

**Feel**

Feel over the catheter dressing. Do not remove the dressing!

The dressing is dry and there is no pain in the area under the dressing.

**GO**

The dressing is wet, you have pain in the area under the dressing, something feels different, or you think you may have a fever.

**STOP**

**If you notice any of the red "stop" signs during your daily catheter check, follow these instructions IMMEDIATELY:**

Contact: \_\_\_\_\_

During regular facility hours \_\_\_\_\_

After hours \_\_\_\_\_

# Access Monitoring

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- Easy to do
- Engages the patient
- Engages the dialysis care team
- Most importantly it **WORKS!**



# Organized Approach

- Remember that more than one abnormality can occur
- Always be systematic
- Check the entire access

Critical thinking is the identification and evaluation of evidence to guide decision making

Critical thinking enhances clinical decision making, helps identify patient needs and determines the best actions that will assist the patient in meeting those needs.

