

Fall 2009

# Network 4 News

ESRD Network 4, Inc.  
is working for you!

A Newsletter for People with Chronic Kidney Disease  
and their Families in Pennsylvania and Delaware



## Highs and Lows of Blood Pressure

The term “Blood Pressure” is heard by most people on a daily basis through TV, radio, internet, and newspapers.

In this article, these questions will be looked at individually to give a better understanding for all the “Network 4 News” readers.

### What Is Blood Pressure?

A person’s heart pumps approximately 1,900 gallons of blood through the vessels in the body every day. Blood pressure is the force of the

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So what does blood pressure actually mean? What is considered normal or high blood pressure? What are the causes of high blood pressure? What are the treatments for high blood pressure?

## Know Your Numbers (BUN and Serum Creatinine)

With the recommendations from the Patient Advisory Committee (PAC), the Network continues with it’s series of educational articles devoted to an increased understanding of the importance of the monthly lab work.

Both good nutrition and proper cleaning of your blood are an **important balance** for improving your quality of life when on dialysis. In this article, we focus on two lab values that show how well your blood is being cleaned and how well you are adding protein in your diet. These two lab values are BUN (Blood-Urea-Nitrogen) and Creatinine which are waste products that build up in the blood when your kidneys are not working as they should.

Other measurements used along with BUN and Creatinine are URR and Kt/V, which show how well you blood is being cleaned.

### **Blood Urea Nitrogen (BUN):**

Whether you are on hemodialysis or peritoneal dialysis, you should feel better as your blood is getting cleaned. To make sure you are getting enough dialysis, your nephrologist will order lab work to see how well dialysis is

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Do you have a suggestion for a news article or would like to contribute to this newsletter? Write it down and send it in to the Network 4 address.

## Blood Pressure

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blood pushing against the walls of the arteries while the heart pumps. The pressure is determined by the force and amount of blood pumped, as well as the size and flexibility of your arteries. When the blood has difficulty flowing through the blood vessels, the pressure against the vessel walls will increase. This can cause high blood pressure (hypertension). Blood pressure continually changes according to a person's level of activity, temperature, emotional state, posture, physical state and from certain medications.

### How Is Blood Pressure Measured?

In most cases, blood pressure is measured while a person is seated with his/her arm resting on a table or hanging down. Blood pressure readings are measured in millimeters of mercury (mmHg) and stated as two numbers; for example, "120 over 80" (written as 120/80).

The top number is called "systolic" blood pressure reading. It is the pressure in the arteries as the heart beats.

The bottom number is called "diastolic" blood pressure reading. It is the pressure of the arteries between beats (at rest).

In healthy adults, the recommended reading is 120/80 or lower. If a person's blood pressure is 140/90 or higher, this may be considered as high blood pressure.

Blood Pressure Stages	Systolic mm/Hg = (top number)	Diastolic mm/Hg = (bottom number)
Normal Blood Pressure	Less than 120	Less than 80
Pre-High Blood Pressure	120 - 139	80 - 89
High Blood Pressure – Stage 1	140 - 159	90 - 99
High Blood Pressure – Stage 2	160 or Higher	100 or Higher
High Blood Pressure <b>Crisis</b>	Higher than 180	Higher than 110

If a person is diagnosed as having diabetes and/or kidney disease, it is recommended that blood pressure be kept at 130/80 or below.

### What Causes High Blood Pressure?

In many people with high blood pressure, a single specific cause is not known. This is called "Primary" or "Essential" high blood pressure.

In some people, high blood pressure is caused by another medical problem or medication. When the cause is known, this is "Secondary" high blood pressure.

### How Does A Person Know If His Blood Pressure Is High?

There may be instances where a person can tell his blood pressure is raising, but the problem is if blood pressure continues to remain high when someone

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## Blood Pressure

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is not stressed, angry or anxious. For the most part, a person does not have any symptoms and cannot tell if his/her blood pressure is high. The only way to find out is to have it measured.

### **What Can Be Done To Control High Blood Pressure?**

- Routine checkups by a physician.
- Purchase an “easy to use” blood pressure cuff for home use.
- If taking blood pressure medications, take them as prescribed.
- Maintain body weight by limiting fat intake, and doing some type of exercise routine.
- Limit sodium (salt) intake by not using the salt shaker and limiting processed and canned foods high in sodium.
- Avoid drinking alcohol.
- Limit caffeine intake (coffee, tea, soda)
- Stop smoking. Smoking raises blood pressure. ●



## Tips For Caring for Your Dialysis Access:

### **Do You Have a Fistula or Graft?**

- ◆ Feel your access daily.
- ◆ Is it harder to feel the blood flow or does it feel like the access is pounding harder?
- ◆ Is there any skin redness, swelling or drainage?
- ◆ Any change is not normal and should be evaluated.

### **Do You Have a Catheter?**

- ◆ Inspect your catheter daily.
- ◆ Is the dressing dry, clean and secure?
- ◆ Are clamps closed and caps on tightly?
- ◆ Is there any skin redness, swelling or drainage where the catheter exits the skin?
- ◆ Any change in the position of the catheter should be reported to your caregiver.

## Know Your Numbers

(BUN and Serum Creatinine)

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working for you. If your doctor sees that your blood is not being adequately cleaned, changes can be made to improve your treatments.

BUN is a lab value done to show the measure of waste (urea) in the blood. Urea is produced from a breakdown of protein already in the body and protein in your diet. A high BUN usually means that kidney function is not normal, but other factors may also affect the BUN level. As BUN rises, symptoms of kidney disease may appear, such as a bad taste in the mouth, poor appetite, nausea, and vomiting. In dialysis, BUN is used to measure whether a person is receiving the correct amount of dialysis. Sometimes a lower BUN may also mean that you are not eating enough protein. Every month a Pre (before dialysis) and Post (after dialysis) blood sample is drawn. It is expected that you will have a higher Pre-treatment BUN level. The results will tell your nephrologist, nurse and dietitian if your blood is being cleaned properly. If your blood is not being cleaned properly, the doctor will make some adjustments to your treatment, or run tests to see that your dialysis access (fistula, graft, catheter) is working correctly.

A Normal BUN level for healthy individuals is 7-20 mg/dl in adults, and 5-18 mg/dl in children.

Patients on dialysis have a higher BUN level, usually

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## Vocational Rehabilitation

One of the biggest losses a dialysis patient experiences when placed on dialysis is the temporary, and often permanent, loss of employment.

While some patients are too ill to work even part-time, there are a number of people who, with the help of a vocational rehabilitation counselor, may be able to return work. This may mean learning a new trade or finding a different job setting, but even working part-time is an option for many people on dialysis.

The Ticket to Work program is a national program that started in 1999 with the goal to increase opportunities and choices for Social Security disability beneficiaries to obtain employment, vocational rehabilitation and other support services from public and private providers, employers, and other organizations.

Your dialysis facility social worker can provide more information about this program.

Visit the ESRD Network 4 Patient Resources page on our website at [www.esrdnetwork4.org](http://www.esrdnetwork4.org) for more information about the Ticket to Work program as well as other rehabilitation resources. ●



## Transplant As An Option

It is now widely accepted that kidney transplantation saves lives. This of course entirely depends upon your ability to undergo a kidney transplant. Before a transplant, you need to make an appointment with a transplant center to determine whether you qualify to receive a transplant. This determination can only be made after you have been evaluated by the members of a transplant team.

Kidney transplant and dialysis are two different modalities available to treat your kidney failure. However, for some patients, a kidney transplant is not a reasonable course of treatment, thus for them dialysis remains the preferred life saving therapy. However, if one is able to undergo a successful kidney transplant, not only does the transplant offer those patients a better quality of life but it may also allow those to live longer.



### **What can you do to improve your chances of being a potential transplant candidate?**

Remain compliant with dialysis. Monitor your weight and if you are overweight, then try to modify your lifestyle to achieve weight loss. If you smoke, quit smoking. If you have diabetes, maintain good blood sugar control. Have a regular follow up with your primary care physician or nephrologist and get your

maintenance health studies, such as: mammogram and gynecologic exams for women, and colonoscopy exam for those over the age of 50.

People with kidney disease who have been told by their transplant team that they may be “incompatible” (not being a match) for receiving a kidney transplant may find the news difficult to hear. One of the reasons a person is “incompatible” for a transplant is if their blood has built up harmful “antibodies”. The build-up of antibodies in a person’s blood could cause the transplanted organ to be

rejected by the body. In the past, this would prevent a patient from receiving a kidney transplant, but with current technology, there is a way to help reduce these harmful antibodies.

To help prepare the body for transplant, a treatment called “plasmapheresis”

can help remove the harmful antibodies from the blood. This procedure is similar to dialysis because it removes the plasma portion of the blood where antibodies are located. The number of plasmapheresis treatments a person would need varies depending on the amount of harmful antibodies in the blood.

### **Is there a risk to being a living kidney donor?**

Anyone between the ages of 18 and 60

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## Transplant as an Option

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years can be a potential donor. A potential living kidney donor should otherwise be healthy. A recent article in *The New England Journal of Medicine*<sup>†</sup> reported no increased risk of death, hypertension, or need for future dialysis when kidney donors were compared to the general population. This article concludes that lifespan, health status and quality of life are not adversely affected by being a kidney donor in carefully screened transplant programs. ●

*Information taken from "The Johns Hopkins Comprehensive Transplant Center Incompatible Kidney Transplant Program Handout/Internet Website" and "Transplant News" from Geisinger Medical Center.*

<sup>†</sup>(Ibrahim HN, Foley R, Tan L, et al *N Engl J Med.* 2009; 360:459-469)

## Online Resources

There are many places on the web that you can turn to for support and for education. Below is a short list of sites you might want to visit:

American Association of Kidney Patients (AAKP)

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

I Hate Dialysis

[www.ihatedialysis.com](http://www.ihatedialysis.com)

Dialysis Patient Citizens

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

National Kidney Foundation (NKF)

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

Medicare

[www.medicare.gov](http://www.medicare.gov)

Renal Support Network

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

American Kidney Fund

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



## Know Your Numbers *(Continued from Page 4)*

40-60 mg/dl or higher. The nephrologist and/or dietitian will help determine whether the BUN is in the correct range.

### **Serum Creatinine:**

Creatinine is a waste product that is passed through the kidneys. It is formed when your muscles are in use. It also comes from protein foods we eat, mostly from muscle meats. Women produce less creatinine than men because women have less muscle tissue. When your kidneys are not getting rid of creatinine, it remains in the bloodstream. Similar to urea, your nephrologist will order a creatinine test monthly and make some adjustments to your treatment, or run other tests to see that your dialysis access is working correctly.

The normal serum creatinine range for men is 0.5-1.5 mg/dl. The normal range for women is 0.6-1.2 mg/dl. The serum creatinine levels for patients on dialysis are higher than normal levels. ●

## The Role of Network 4

Network 4 serves as a liaison between the Centers for Medicare & Medicaid Services (CMS) and the dialysis/transplant providers, as well as between the providers and those patients under their care. Network 4 provides quality improvement, data management, complaint and grievance investigation, technical assistance, and both patient and professional education services for more than 260 providers & more than 15,000 individuals within Pennsylvania and Delaware. Our goal is to effectively increase the care and quality of life for ESRD Patients. Patient-Only Toll Free Number: 1-800-548-9205

**ESRD Network 4 wishes you and yours a healthy, happy and safe Holiday Season!**



## Dialysis Facility Compare

[www.medicare.gov/dialysis](http://www.medicare.gov/dialysis)

Where do you go when you need information on other dialysis facilities in your area? What if you want a unit in your area that offers peritoneal dialysis or home dialysis? You may need an evening dialysis schedule due to your job, so you need to find a unit that offers treatment after five o'clock. What if you want to compare your facility's quality measures with other dialysis centers in your area, is there a place to go to find this?

Yes there is! The **Dialysis Facility Compare** (DFC) website provides both demographic information and 'quality measures' data about dialysis facilities that have been approved by Medicare.

### What are the three quality measures?

- The percent of patients at a facility with Urea Reduction Ratio (URR) of 65 or greater (known as 'adequacy of hemodialysis').
- The percent of patients treated with Epogen® with a Hematocrit of 33 or greater.
- Patient survival information.

### The Web site also offers the dialysis facility characteristics.

- Address and telephone number of the facility
- The facility's initial date of Medicare certification
- Shifts starting at 5 PM or later (if you need your treatments in the evening)
- The number of treatment stations
- The types of dialysis offered (in-center hemodialysis, peritoneal dialysis, and home hemodialysis training)
- Facility ownership type (profit or non-profit)

## Flu Prevention Tips (including H1N1)

The H1N1 Flu has been in the news a lot lately. You should know that this type of flu is rare in humans, but there are some things you can do to keep yourself protected from getting this or any other flu.

### Avoid close contact.

Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.

### Do not skip your dialysis.

Avoid other contact by staying home from work, school, church and errands when you are sick. You will help prevent others from catching your illness. **DO NOT MISS YOUR DIALYSIS TREATMENTS.** It is important that you alert the dialysis unit and your doctor if you have flu-like symptoms.

### Cover your mouth and nose.

Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.

### Clean your hands.

Washing your hands often will help protect you from germs.

### Avoid touching your eyes, nose or mouth.

Germs are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose or mouth.

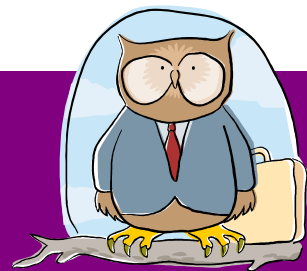
### Practice other good health habits.

Get plenty of sleep, be physically active, manage your stress, eat nutritious foods and drink plenty of fluids ... **UNLESS YOU ARE A DIALYSIS PATIENT -- Always follow your doctor's instructions for fluid restrictions.** ●

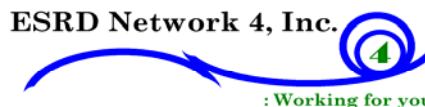


## Be wise ... Immunize!

Get your flu shots to protect you from the seasonal and the H1N1 influenza viruses!



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WE'RE ON THE WEB!

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