Dialysis Options
You are not alone!

- 37 million American adults have Chronic Kidney Disease (CDC) yet 90% do not know it
- This accounts for 15% of the US population (NKF)
- \( \frac{1}{3} \) Americans are at risk (NKF)
What’s the big deal about kidneys?

- Removes waste
- Removes extra fluid from the blood to form urine
- Regulate electrolytes such as potassium, calcium, and sodium

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**Periodic Table Elements**

| Element | Charge | Mass
|---------|--------|------|
| Na      | 11     | 22.990
| K       | 19     | 39.098

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CAROLINA NEPHROLOGY, PA
excellence in kidney care
The kidneys also:

- Assists with blood pressure management
- Filter 120-150 quarts of blood per day to make 1-2 quarts of urine per day
- Helps the body make red blood cells
Blood is filtered and waste is removed

Blood from body enters kidney

Filtered blood returns to body

Waste is sent to bladder

Kidney

Ureter

Bladder

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What happens when your kidneys begin to fail?

- Fluid builds up in the body which can cause edema (swelling) and/or shortness of breath
- Electrolytes like potassium, sodium, and calcium are not kept in balance
- Blood pressure becomes difficult to control
- You may become anemic
- Waste products are not filtered which leads to uremia
What is uremia?

The result of a build-up of waste products that damaged kidneys don’t filter out of the bloodstream very well.

**Symptoms:**

- Loss of appetite
- Headache
- Bad taste in your mouth
- Trouble concentrating
- Nausea/vomiting
- Fatigue

As kidney function decreases, uremic symptoms will worsen. Dialysis can relieve many of these symptoms.
Dialysis Supports Your Kidneys by:

- Removing extra fluid
- Balancing electrolytes
- Filters waste products
- Helps control blood pressure
- Corrects anemia by assessing and dosing medications like IV iron and epogen/aranesp
Treatment Options

- Dialysis
- Peritoneal Dialysis
- Hemodialysis in-center
- Home Hemodialysis
- Kidney Transplantation
- Conservative Care
So, if I don’t need dialysis now, why does my provider keep talking about it??

Before anything else, preparation is the key to success.

Alexander Graham Bell
PERITONEAL DIALYSIS
Peritoneal Dialysis

- At home
- Can be done while you sleep
- Doctor visit once/month
- Easy travel
- No blood involved and NO NEEDLES
- Typically a more liberal diet than traditional in-center hemodialysis
- Often can decrease the number of medications taken
- A caregiver is preferred but not necessary
Peritoneal Dialysis Benefits

- Your natural kidney function will last longer compared with standard in-center hemodialysis.
- Better survival for the first 2 years of dialysis and potentially longer.

*Help, I Need Dialysis* - Schatell and Agar
A bag of dialysate is connected to a tube in your abdomen.

Waste, fluid, and chemicals flow through the peritoneal membrane into the dialysate.

About 2 to 3 liters of liquid are used in each exchange.

Fresh dialysate is ready to fill your abdomen.

After a few hours, the dialysate is drained out of your abdomen into an empty bag.
Using a Cycler at night
Myths about Peritoneal Dialysis

- I can’t do peritoneal dialysis because my vision is poor.
- I can’t swim if I choose peritoneal dialysis.
- I am more likely to get an infection on peritoneal dialysis.

Risk of Infection based on modality choice

<table>
<thead>
<tr>
<th>Access Type</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemodialysis Catheter</td>
<td>6 months</td>
</tr>
<tr>
<td>Graft</td>
<td>18 months</td>
</tr>
<tr>
<td>Fistula</td>
<td>24 months</td>
</tr>
<tr>
<td>Peritoneal Dialysis</td>
<td>24 months</td>
</tr>
</tbody>
</table>
HEMODIALYSIS
Basics of Hemodialysis

- Toxins are filtered out of the blood
- Can be done at home or at the dialysis center
- Treatment time 2-2.5 hours at home 5-6x/week or 4-5 hours 3x/week at the dialysis center
How does hemodialysis work?
How is blood removed and replaced?

FISTULA:
The surgical linking of an artery to a vein providing access to blood vessels
Hemodialysis Catheter
In-Center Hemodialysis
Home Hemodialysis
## Time Commitment For Peritoneal Dialysis Treatments

<table>
<thead>
<tr>
<th>CAPD</th>
<th>Cycler PD</th>
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</thead>
<tbody>
<tr>
<td>30 min/exchange = 14 hrs/wk</td>
<td>9 hours/night = 63 hrs/week</td>
</tr>
<tr>
<td>10 min set/clean up = 4.6 hrs/wk</td>
<td>10 min set/clean up = 70 min/wk</td>
</tr>
<tr>
<td>Recovery time = 0</td>
<td>Recovery time = 0</td>
</tr>
</tbody>
</table>

**TOTAL TIME:** 18-19 hours/week  
**TOTAL TIME:** 64 hrs/week (SLEEPING)

*Help, I Need Dialysis* - Schatell and Agar
### Time Commitment For Hemodialysis

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Commitment</th>
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</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>2.5-3 hrs = 12.5-18 hrs/wk</td>
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<tr>
<td></td>
<td>4 hrs/treatment = 12 hrs/week</td>
</tr>
<tr>
<td>Set/Clean up</td>
<td>45 min = 3.7-4.5 hrs/wk</td>
</tr>
<tr>
<td></td>
<td>Travel 40 min/treatment = 2 hrs/week</td>
</tr>
<tr>
<td>Recovery time</td>
<td>30 min = 2.5-3 hrs/wk</td>
</tr>
<tr>
<td></td>
<td>Waiting 20 min/treatment = 1 hr/week</td>
</tr>
<tr>
<td></td>
<td>Recovery 2-7 hrs/treatment = 6-21 hrs/wk</td>
</tr>
<tr>
<td><strong>TOTAL TIME:</strong></td>
<td>19-25 hours/week</td>
</tr>
<tr>
<td><strong>TOTAL TIME:</strong></td>
<td>23-36 hours/week</td>
</tr>
</tbody>
</table>

*Help, I Need Dialysis* - Schatell and Agar
Medicare and Dialysis

• If you start home dialysis (peritoneal dialysis or hemodialysis), you can get Medicare to kick in from Day 1!

• With standard in-center hemodialysis, Medicare will not kick in until the first day of your 3rd month of treatment.
Renal Transplant

- Living or deceased donor
- Living donor swap program
- Performed at a transplant center