

Module 11 – Medical Emergencies

Medical emergencies are events that require immediate medical attention. You may be asked to go to the emergency department for further assessment.

Fever and chills while on hemodialysis

A very small rise in your body temperature (above normal) is usually a sign of infection. Normal body temperature is 36.5–37.5 degrees Celsius or 98—99 degrees Fahrenheit.

In many cases, your dialysis access will be the site of the infection. Infection can also be caused by contaminated water, or dialysate, or by improper technique when setting up your machine.



If you have a fever or suspect your dialysis access might be infected, call your dialysis nurse or doctor before starting dialysis.

If you do have an infection, you may experience some or all of the following symptoms:

- A chill after you start dialysis, which may cause you to start shaking uncontrollably (rigors)
- A higher than normal temperature (fever)
- An unusually low blood pressure
- Headache
- Aching muscles
- Nausea and vomiting

If you experience some, or all, of these symptoms, take the following actions:

1. Come off dialysis as you may start to feel too unwell to manage

your dialysis safely.

2. Check your dialysis **access** for signs of infection, e.g. redness, heat, pain, swelling or drainage.
3. Take your temperature.
4. Check for other signs of infection, e.g. coughing up thick coloured sputum or pain when passing urine.
5. Call your training nurse or physician for advice.
6. Be prepared to go immediately to your local training site or emergency room. If you feel very unwell and cannot contact your dialysis team, go to your nearest hospital emergency room.



Important to remember:

Take all your medications, or a list, with you to the hospital.
See [page 122](#) for a copy you can print and fill out.

Chest pain

Possible causes of chest pain:

- Fluid overload
- Going below your goal weight
- Low hemoglobin (anemia)
- Not enough oxygen to heart
- Heart disease
- **Hemolysis**
- **Dialyzer** reaction (allergic reaction to your dialyzer)
- Air in your bloodstream

Symptoms:

- Pain or tightness in chest, back, arms or jaw
- Difficulty breathing; shortness of breath
- Anxiety
- Weakness
- Severe indigestion
- Sweating

What to do if you are not on dialysis:

1. Call 911.
2. Bring your medications or medication list with you to the ER.

What to do if you are on dialysis:

1. Remain calm, but act immediately.
2. Call 911.
3. Return blood – if no air in blood.
4. Lower head.
5. Take blood pressure – if your B/P is low, give 200 mL extra saline. Repeat three times as needed.
6. If you have been prescribed nitroglycerin, take one pill/spray every 5 minutes for up to 3 doses.
7. Wait for paramedics to arrive before removing dialysis needles.



Important to remember:

Take all your medications, or a list, with you to the hospital.
See [page 122](#) for a copy you can print and fill out.

Hemolysis

Hemolysis is the word used to describe the lysis (break up) of red blood cells resulting in the release of potassium from inside the cells into your bloodstream.

Possible causes of hemolysis:

- Your dialysis fluid temperature is too hot.
- Your dialysis fluid is too diluted.
- Chemical disinfectant has not been properly rinsed from the machine.
- Your blood pump is damaged and “pinching” the bloodline.
- Your bloodline is kinked during the dialysis run.



Important to remember:

Always check your lines for any kinking, especially after flipping your dialyzer during priming.

Symptoms:

Your blood may appear transparent and “cherry soda” red in colour.

You may experience any of the following symptoms and these can occur several hours after your dialysis:

- Sudden onset of shortness of breath
- Sudden onset of chest pain
- Severe lower back pain
- Nausea and Vomiting
- Diarrhea

What do I do if I suspect hemolysis?

1. Stop blood pump immediately.
- 2. DO NOT RETURN ANY OF YOUR BLOOD.**
3. If you have chest pain, or shortness of breath, dial 911 for an ambulance to take you to the ER.
4. Call your nurse or doctor on call immediately.



Save your dialysis bloodlines, dialysate jug and bicart and bring to the hospital with you for inspection.



Save your blood cartridge and Dialysate Sak and bring to the hospital with you for inspection.

Air Embolism

An air embolism occurs when air bubbles enter your bloodstream and block blood flow, preventing blood from reaching vital organs like your heart or brain. It is similar to a tiny air bubble blocking water flow in a pipe.

Possible causes of an air embolism:

- Catheter issues: loose connections, clamps not closed.
- Machine issues: malfunctioning air detectors.
- Air in blood circuit: air entering if there are holes or loose connections in the tubes.
- Setup mistakes: if the equipment is not set up correctly, air can get into the blood from loose connections, clamps not closed.

What to do if you suspect an air embolism:

1. Stop Dialysis:

- Immediately stop the dialysis machine.
- Clamp the catheter to prevent more air from entering.

2. Positioning:

- Lay on your left side with your head lower than your feet. This helps keep the air bubble away from your heart and lungs.

3. Call for Help:

- Dial emergency services (911) right away to get professional medical help

Symptoms:

- **Breathing Problems:**

- Shortness of breath
- Chest pain
- Rapid breathing

- **Heart Issues:**

- Fast heartbeat
- Low blood pressure
- Heart palpitations

- **Neurological Signs:**

- Confusion or dizziness
- Loss of consciousness
- Seizures

- **Other Symptoms:**

- Nausea or vomiting
- Blue or pale skin



Notes- Medical Emergencies