The kidneys are vital organs responsible for filtering out waste products from the blood, controlling blood pressure, and stimulating red blood cell production. Treatment for childhood cancer sometimes requires removal of one kidney (nephrectomy). Although you can live a healthy life with only one kidney, it is important that you take steps to protect your remaining kidney in order to keep it as healthy as possible.

What follow up is recommended?

- **Have a medical check-up at least yearly.** This should include a blood pressure check and urinalysis.

- **Have a blood test for kidney function (BUN, creatinine) and electrolytes (blood salts and minerals) at your first long-term follow-up visit** (at least 2 years after completing cancer treatment). If problems are detected, follow your health care provider’s recommendations.

- If you have high blood pressure, protein in the urine, or other signs of worsening kidney problems, you should have an evaluation by a nephrologist (kidney specialist).

What can I do to keep my kidney healthy?

- **Drink plenty of water**, especially when playing sports, while out in the sun, and during hot weather.

- **Call your healthcare provider immediately if you have symptoms of a urinary tract infection** (burning when you urinate, urinating more frequently than usual, and/or feeling an urgent sensation to urinate).

- **Check with your healthcare provider or pharmacist before taking any new medicines** (prescription, over-the-counter, or herbal). Be sure that your healthcare provider or pharmacist is aware that you have a single kidney.

- **Use non-steroidal anti-inflammatory drugs with caution.** These include pain or fever medicines (over-the-counter and by prescription) that contain aspirin, ibuprofen, acetaminophen or naproxen. These medications have been known to cause kidney damage (analgesic nephropathy), especially when taken in excessive doses or when two or more of these medications are combined with caffeine or codeine and taken over long periods of time. If you require long-term medications for management of pain, be sure to discuss the alternatives with your healthcare provider, and to choose medications that are not harmful to your kidney.
Some healthcare providers recommend that people with only one kidney should avoid contact sports or use a kidney guard if participating in contact sports. **We urge you to discuss your kidney status with your healthcare provider before making decisions about participation in sports and recreational activities.**

- **The most common cause of kidney injury is due to accidents, most often involving automobiles, bicycles (especially handlebar injuries), and falls.** Because of this, it is important to use seatbelts properly when riding in a vehicle (lap belts should be worn across the hips, not around the waist), and to use common sense when bicycling (avoid racing and stunt riding), in order to prevent kidney injury whenever possible. If you are involved in an accident and a kidney injury is suspected, seek immediate medical evaluation.

**Are there any other risk factors for kidney problems?**

**Certain treatments for childhood cancer** can sometimes cause kidney problems. These include **radiation to the kidney**, **chemotherapy** that can affect the kidney (cisplatin, carboplatin, methotrexate and/or ifosfamide), or **other medications** that can affect the kidney (certain antibiotics or medications used for treatment of graft-versus-host disease). In addition, **other risk factors** that may increase the chance of kidney problems include **medical conditions**, such as high blood pressure or diabetes, **urinary tract problems** such as frequent urinary infections or back-flow of urine into the kidney (reflux), or bladder removal (cystectomy). If you have any of these risk factors, please read the related Health Link, "Kidney Health."

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Additional health information for childhood cancer survivors is available at www.survivorshipguidelines.org

Note: Throughout this Health Links series, the term “childhood cancer” is used to designate pediatric cancers that may occur during childhood, adolescence, or young adulthood. Health Links are designed to provide health information for survivors of pediatric cancer, regardless of whether the cancer occurred during childhood, adolescence, or young adulthood.