What is Cancer?

[Cancer](http://curesearch.org/glossary/cancer) is a disease in which cells grow and divide with little or no control. There are many different types of cancer. Cancers are typically named for the [organ](http://curesearch.org/glossary/organ/) or the [cell](http://curesearch.org/glossary/cell/) where the cancer begins. Some cancers can spread from the original site and move to other places in the body.

* [Breast cancer](https://www.google.co.in/search?q=Breast+cancer&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlACs7IsMlJ2MTEaAQDI_8_hGgAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAI9gEwCw)

A cancer that forms in the cells of the breasts.

* [Prostate cancer](https://www.google.co.in/search?q=Prostate+cancer&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlACs3KNjTJ2MTEaAQC7ZOiBGgAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAI-AEwCw)

A cancer in a man's prostate, a small walnut-shaped gland that produces seminal fluid.

* [Basal cell cancer](https://www.google.co.in/search?q=Basal+cell+cancer&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlDiBLGMjbOySnYxMRoBAIKqREQbAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAI-gEwCw)

A type of skin cancer that begins in the basal cells.

* [Melanoma](https://www.google.co.in/search?q=Melanoma&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlDiBLGMTZOM0ncxMRoBAKqKWXYbAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAI_AEwCw)

The most serious type of skin cancer.

* [Colon cancer](https://www.google.co.in/search?q=Colon+cancer&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlDiBLEMU5ILs3YxMRoBALPmCBYbAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAI_gEwCw)

A cancer of the colon or rectum, located at the lower end of the digestive tract.

* [Lung cancer](https://www.google.co.in/search?q=Lung+cancer&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlACs0wKjMt3MTEaAQBEMI6XGgAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAIgAIwCw)

A cancer that begins in the lungs and most often occurs in people who smoke.

* [Leukemia](https://www.google.co.in/search?q=Leukemia&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlACs0wKitN2MTEaAQAahFbFGgAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAIggIwCw)

A cancer of blood-forming tissues, hindering the body's ability to fight infection.

* [Lymphoma](https://www.google.co.in/search?q=Lymphoma&stick=H4sIAAAAAAAAAOMQFeLQz9U3KEwuMlACs7JSsg12MTEaAQCuZ71OGgAAAA&sa=X&ved=0ahUKEwjOqP7n85_OAhVBp5QKHbnZAosQ0EAIhAIwCw)

A cancer of the lymphatic system.

What Causes Cancer in Children?

Cancer in children occurs when formerly-healthy cells mutate, and replicate much more than they should. When that happens, they can also destroy nearby healthy cells and invade different parts of the body.

Researchers still do not know much about what causes cancer in children. Most children’s cancers are caused by random genetic mutations that can lead to cancer. For some of these mutations, there are some environmental and genetic factors that can contribute to the cancer growing. But we still do not know what causes most childhood cancers.

Each year, more than 15,500 children are diagnosed with cancer. Today, nearly 90% of these children will survive.

Know About Your Liver

**The liver is a large, meaty organ**that sits on the right side of the belly in the upper right-hand bit of the stomach pit, underneath the stomach, and on top of the stomach, right kidney, and digestive systems.

Weighing about 3 pounds and molded like a cone, the liver is reddish-brown/dull rosy tan in color and feels rubbery to the touch. Normally you can't feel the liver, because it's protected by the rib cage. Your liver is probably four to five times the size of your fist.

The liver has two large sections, called the right and the left lobes. The gallbladder sits under the liver, along with parts of the pancreas and intestines.

*The liver is vital and necessary for survival of human being; the liver and other organs work together to digest, absorb, and process food. There is currently no way to compensate for the absence of liver function (LFT is used to finding them out) in the long term, although new liver dialysis techniques can be used in the short term.*

Liver is a kind of reservoir for blood and also its purifier. Liver gets it dual supply of blood from hepatic portal vein and hepatic arteries. The hepatic artery which brings blood rich in oxygen, pumped out from the heart, and the portal vein which brings blood flowing out of the gut, rich in absorbed food material.

#### What does liver do for your body?

*Liver is a very vital organ and needs to be taken the utmost care. The liver is responsible for around 500 separate functions along with other organs / systems of your body. This makes liver like a big chemical laboratory doing lots of things. Currently, there is no artificial organ or device capable of emulating all the functions of the liver.*

All the blood leaving the stomach and digestion systems passes through the liver. As it does so, the liver secretes bile that ends up back in the intestines. The liver also makes proteins important for blood clotting and other functions.

The functions of liver can be categorized broadly into Synthesis, Breakdown and Other Functions.

* Liver does synthesis of amino acids, protein synthesis and degradation, cholesterol synthesis, production of triglycerides.
* Bulk of lipoproteins are also synthesized in liver. Liver also produces and excretes bile, required for emulsifying fats and help the absorption of vitamin K from the diet.
* It gives resistance against disease.
* The liver produces thrombopoietin which is a glycoprotein hormone that regulates the production of platelets by the bone marrow.
* It clears the blood of most chemicals, medications and liquor.
* Liver is responsible for breakdown of insulin and other hormones. It also break down bilirubin and helping its excretion into bile.
* Liver breaks down or clears most chemicals, toxic substances, medical products in a process called drug metabolism. Liver also converts ammonia to urea.
* It manages thickening of blood by assembling crucial proteins
* Liver produces albumin, a major component of blood serum.
* Liver produces a hormone, which is responsible for raising blood pressure in conditions of low blood pressure.
* Liver stores multiple vitamins and substances like glucose, vitamin A, vitamin D, vitaminB12, vitamin K, iron and copper.

#### What’s great about your Liver?

The liver is the only human internal organ capable of natural regeneration of lost tissue; as little as 25% of a liver can regenerate into a whole liver. Its a very rapid process. The liver will attain to a normal size in 8 to 15 days following the removal of greater than 50% of the liver by mass.

### How Do I Know If I Have Kidney Disease?

[Blood](http://www.webmd.com/heart/anatomy-picture-of-blood) and urine tests can help uncover signs of early [kidney disease](http://www.webmd.com/a-to-z-guides/understanding-kidney-disease-basic-information)and monitor the condition.

* [Blood pressure](http://www.webmd.com/hypertension-high-blood-pressure/guide/diastolic-and-systolic-blood-pressure-know-your-numbers) **.** Your [health care](http://www.webmd.com/health-insurance/default.htm) provider will devise a plan, which may include diet changes and [medications](http://www.webmd.com/drugs/index-drugs.aspx), to keep your blood pressure as close to normal as possible. Target blood pressure is defined as less than 130/80.
* **Blood electrolytes**. When the kidneys are not working correctly, you can develop high potassium and low calcium, phosphorus, bicarbonate, which can affect your heart’s conduction system and cause muscle aches and other complications.
* [**Urine protein**](http://www.webmd.com/fitness-exercise/guide/good-protein-sources)**or albumin in the urine.** Albumin is the main protein in the blood. When the [kidneys](http://www.webmd.com/urinary-incontinence-oab/picture-of-the-kidneys) become damaged, the holes in the filtering system of your kidneys become enlarged, allowing protein to leak into the urine. In the early stages of kidney damage, only small amounts of albumin (microalbuminuria) are found. This test is very important for people with [diabetes](http://www.webmd.com/diabetes/default.htm) because at this early stage of kidney damage, further deterioration can often be prevented by diet, [exercise](http://www.webmd.com/fitness-exercise/default.htm), and medications.
* **GFR (glomerular filtration rate).** This is a measure of how well the kidneys are filtering blood. An estimate of your "filtering rate" is determined by a blood test called a [blood creatinine](http://www.webmd.com/a-to-z-guides/creatinine-and-creatinine-clearance-blood-tests) test, which measures the amount of creatinine -- a waste product -- in your blood. This test, along with your age, body size, and gender, provides an estimate of your GFR. The GFR, or "filtering rate," helps confirm normal or low kidney function. A score of 90 or above is normal; a score below 15 indicates kidney damage that will require [dialysis](http://www.webmd.com/a-to-z-guides/kidney-dialysis) or a [kidney transplant](http://www.webmd.com/a-to-z-guides/kidney-transplant-20666). Another commonly used test to estimate GFR is a creatinine clearance. This test measures the [creatinine](http://labtestsonline.org/understanding/analytes/creatinine) in the blood and urine to determine kidney function.

Your health care provider may also refer you to a kidney specialist, called a nephrologist, for more specialized testing. A [kidney biopsy](http://www.webmd.com/a-to-z-guides/kidney-biopsy) may also be performed. During a kidney biopsy a small amount of kidney tissue is removed for microscopic exam to pinpoint the cause of kidney damage and plan treatment.

# KEY POINTS: LIVING WITH STAGE 4 KIDNEY DISEASE

If you have stage 4 kidney disease, it is important for you to:

* Learn what you can do to keep kidney disease from getting worse - and do it!
* Do your part to manage the complications of kidney disease
	+ Heart and blood vessel problems
	+ Anemia (low red blood cell count)
	+ Bone problems
	+ High blood pressure
	+ Poor nutritional health (i.e. happens when you are not getting enough important nutrients and energy for your body to function and stay healthy)
	+ Learn more about kidney failure and the different treatment options for it.

**What is Stage 4 Kidney Disease?**

Chronic kidney disease (CKD) happens if your kidneys have been damaged. Kidneys can become damaged from a physical injury or a disease like diabetes or high blood pressure. Once your kidneys are damaged, they are not able to filter blood or do their other jobs well enough to keep you healthy. Some of the important jobs kidneys do:

* Filter blood
* Balance your body's fluids
* Regulate hormones
* Help keep blood pressure under control
* Keep bones healthy
* Help make red blood cells