

## **Liver Cancer - Stages** [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 03/2014

**ON THIS PAGE:** You will learn about how doctors describe a cancer's growth or spread. This is called the stage. To see other pages, use the menu on the side of your screen.

There are two types of liver cancer: primary and metastatic. Primary liver cancer begins in the liver; metastatic (secondary) liver cancer has spread to the liver from a cancer that started in another part of the body. For information about stages of secondary liver cancer, read about the [primary type of cancer](#) [3] because there are different stage descriptions for different types of cancer. For example, lymphoma that has spread to the liver is still staged as lymphoma.

Staging is a way of describing where the cancer is located, if or where it has spread, and whether it is affecting other parts of the body. Doctors use diagnostic tests to find out the cancer's stage, so staging may not be complete until all of the tests are finished. Knowing the stage helps the doctor decide what kind of treatment is best and can help predict a patient's prognosis, which is the chance of recovery.

For liver cancer, the staging information below is specifically for HCC and is based on whether a tumor is able to be surgically removed. When surgery is not an option, the doctor will use additional factors, such as overall liver function, to determine the treatment plan and predict prognosis.

**Localized resectable.** Cancer is only in one place in the liver, and the other part of the liver is healthy. The cancer is resectable, meaning it can be removed using surgery.

**Localized unresectable.** Cancer is found in only one part of the liver, but it cannot be removed by surgery. This makes the tumor "unresectable." A smaller tumor may not always be removable by surgery because the liver itself is seriously damaged, usually with cirrhosis, and there would not be enough of the liver left after the operation to keep a person healthy.

**Advanced.** Cancer has spread throughout the liver and/or to other parts of the body, such as the lungs and bones.

**Recurrent.** Recurrent cancer is cancer that has come back after treatment. If there is a recurrence, the cancer may need to be staged again (called re-staging) using the system above.

To describe the stage in more detail, doctors sometimes use the TNM system, outlined below. TNM is an abbreviation for tumor (T), node (N), and metastasis (M). Doctors look at these three factors to determine the stage of cancer:

- How large is the primary tumor and where is it located? **(Tumor, T)**
- Has the tumor spread to the lymph nodes? **(Node, N)**
- Has the cancer metastasized to other parts of the body? **(Metastasis, M)**

The results are combined to determine the stage of cancer for each person. There are four stages: stages I through IV (one through four). The stage provides a common way of describing the cancer, so doctors can work together to plan the best treatments.

This staging system is most useful for patients whose tumor can be surgically removed. Here are more details on each part of the TNM system for liver cancer.

**Tumor.** Using the TNM system, the "T" plus a letter or number (0 to 4) is used to describe the size and location of the tumor. Some stages are also divided into smaller groups that help describe the tumor in even more detail. If there is more than one tumor, the lowercase letter "m" (multiple) is added to the "T" category. Specific tumor stage information for HCC is listed below.

**TX:** The primary tumor cannot be evaluated.

**T0:** There is no evidence of a primary tumor.

**T1:** The tumor is 2 centimeters (cm) or smaller. It does not involve nearby blood vessels.

**T2:** Either of these:

- Any tumor that involves nearby blood vessels.
- More than one tumor, but none larger than 5 cm.

**T3a:** There is more than one tumor, and at least one is larger than 5 cm.

**T3b:** The tumor (of any size) involves the major veins around the liver.

**T4:** Either of these:

- The tumor has spread to the organs near the liver (except the gallbladder).
- The tumor has broken through the visceral peritoneum (layer of tissue that lines the abdomen).

**Node.** The "N" in the TNM staging system stands for lymph nodes, the tiny, bean-shaped organs that help fight infection. Lymph nodes near the liver are called regional lymph nodes. Lymph nodes in other parts of the body are called distant lymph nodes.

**NX:** The regional lymph nodes cannot be evaluated.

**N0:** Cancer has not spread to the regional lymph nodes.

**N1:** The cancer has spread to the regional lymph nodes.

**Distant metastasis.** The ?M? in the TNM system indicates whether the cancer has spread to other parts of the body.

**MX:** The tumor cannot be evaluated.

**M0:** The cancer has not spread to other parts of the body.

**M1:** The tumor has spread to another part of the body.

### **Cancer stage grouping**

Doctors assign the stage of the HCC by combining the T, N, and M classifications.

**Stage I:** This is the earliest stage of HCC. The tumor has not spread to the blood vessels, lymph nodes, or other parts of the body (T1, N0, M0).

**Stage II:** The tumor involves nearby blood vessels, but it has not spread to the regional lymph nodes or other parts of the body (T2, N0, M0).

**Stage IIIA:** The cancer has not spread beyond the liver, but the area of the cancer is larger than stage I or II (T3a, N0, M0).

**Stage IIIB:** The cancer involves a major vein around the liver, but it has not spread to nearby lymph nodes or other parts of the body (T3b, N0, M0).

**Stage IIIC:** Any tumor that has spread to the organs near the liver (except the gallbladder), or if the tumor has broken through the visceral peritoneum. There is no spread to nearby lymph nodes or other parts of the body (T4, N0, M0).

**Stage IVA:** Any tumor that has spread to the regional lymph nodes but not to other parts of the body (any T, N1, M0).

**Stage IVB:** Any tumor that has spread to other parts of the body (any T, any N, M1).

*TNM system outline used with permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original source for this material is the AJCC Cancer Staging Manual, Seventh Edition (2010) published by Springer-Verlag New York, [www.cancerstaging.net](http://www.cancerstaging.net) [4].*

*Information about the cancer's stage will help the doctor recommend a treatment plan. The next section helps explain the treatment options for this type of cancer. Use the menu on the side of your screen to select Treatment Options, or you can select another section, to continue reading this guide.*

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#### **Links:**

[1] <http://www.cancer.net/cancer-types/liver-cancer/stages>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/cancer-types>

[4] <http://www.cancerstaging.net/>