

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

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Memorial Sloan Kettering  
Cancer Center

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## ABOUT US

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In a woman, an adenocarcinoma found in a lymph node under the arm often indicates [breast cancer](#). A mammogram and breast examination can help when making a diagnosis.

In a young man, a tumor in the belly may suggest [testicular cancer](#).

In a person with enlarged lymph nodes in the upper body or neck, [head and neck cancer](#) is usually the primary source.

In a person with a single liver tumor, [cholangiocarcinoma \(cancer of the bile ducts in the liver\)](#) may be the primary source.

In a man with cancer in the lymph nodes in the groin or pelvis, [prostate](#), penile, or [anal cancer](#) may be the primary site.

In a woman with enlarged lymph nodes in the groin, this finding may indicate [cervical or vaginal cancer](#).

For many people, however, the primary site cannot be found. In these cases, the diagnosis focuses on identifying the location of the cancer and the [type of cells that make up the tumor](#) to develop a care plan.

For most people with cancer of unknown primary, doctors rely on information from blood tests, imaging studies, molecular analysis, and pathology tests to learn more about a tumor.

Many people with a tumor designated as cancer of unknown primary have already had some of these tests when they come to MSK. Our doctors may do additional laboratory and imaging tests to narrow down the possible organs or parts of the body where the cancer began. Tests may also be needed to identify the kinds of cells in the tumors. With these results, our doctors can recommend the most-effective treatment possible.

## Imaging

Our doctors use state-of-the-art imaging tests to create high-quality pictures of tumors. These images pinpoint the location of a tumor and where else the cancer might be in the body. Diagnostic imaging also provides information on the size and density of a tumor. This helps our doctors determine the most-effective care plan. We may use one or more of the following imaging techniques:

### *CT Scans*

CT uses X-rays to produce an image that reveals the location and size of a tumor or tumors, as well as whether the cancer has spread into the lymph nodes or other areas.

### *Ultrasound*

High-frequency sound waves may be used to help map the location and number of tumors in the body. Ultrasound can also help distinguish a cancerous tumor from a noncancerous (benign) growth.

### *PET*

Before imaging with PET, a small amount of radioactive sugar is injected into a vein. Cancer cells absorb sugar more rapidly than normal cells, so this solution helps highlight the cancer cells on a PET scan. PET is often combined with CT to identify areas of the body where cancer of unknown primary has spread, even when the primary site cannot be found.

## **Biopsy**

A biopsy (removal of tumor tissue or fluid for examination under a microscope) is commonly performed to confirm a diagnosis of cancer of unknown primary and to obtain cells for further study under a microscope. A pathologist examines the sample to determine the type of cells involved. Depending on the location of the tumor, doctors may perform one or more of the following types of biopsy:

### *Core Needle Biopsy*

A large needle is inserted into the tumor to obtain tissue for sophisticated pathology tests. Imaging tests may help guide the placement of the needle. Core needle biopsy is usually performed using a local anesthetic.

### *Fine Needle Aspiration*

A smaller needle is inserted during a core needle biopsy to extract a sample of cells or fluid for examination under a microscope. The biopsy can also be used for additional studies in the laboratory.

### *Surgical Biopsy*

In this type of biopsy, a surgeon removes some or all of a tumor or affected lymph nodes. General anesthesia is required if the tumor or lymph node is located in the chest or belly.

## **Pathology Tests**

In many cases, routine laboratory tests do not provide enough information about a cancer of unknown primary to identify or narrow down the possible primary site. Memorial Sloan Kettering's pathologists are highly experienced in identifying subtle cell patterns that may indicate certain types of cancer.

We use many laboratory tests to find out important information about the tumor type and how it will respond to treatment. These include tests that use antibodies to screen for proteins produced by certain tumors. We may also use such tests as [MSK-IMPACT™](#). This can identify genetic changes that could be targeted with drugs or immunotherapy.

## **Request an Appointment**

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Available Monday through Friday, 8 a.m. to 6 p.m. (Eastern time)

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