Fine Needle Aspiration Biopsies are performed in the Wang Ambulatory Care Building (WACC) on the second floor (see purple color block above). For assistance finding your way around the Massachusetts General Hospital Campus, you may visit any of our information desks, located in the Main Lobby, Gray Lobby, Cox Lobby or Wang Lobby.

This brochure is made available through a generous grant from the Friends of the Cancer Center, Massachusetts General Hospital.
What is fine needle aspiration biopsy?

Fine needle aspiration biopsy (FNAB) is an established biopsy technique that may replace the need for or precede a more invasive biopsy of a mass (lump). It is performed in an attempt to determine what is causing the mass, and to decide whether it needs to be removed or evaluated in another way. Using a tiny needle, the biopsy procedure typically takes only about 10 to 15 minutes and the results are usually ready within 24 to 48 hours. Representative slides are looked at right away to make sure cells are being obtained. Occasionally, the results may be known at the time of the biopsy.

How is the biopsy performed?

A very small needle (shot size needle) is used to remove cells from the mass for evaluation under the microscope. Generally, no numbing injection is necessary. Most often there is minimal discomfort, however, patients with a very tender or painful mass may experience more discomfort. In many cases two separate biopsies are done before a representative slide is evaluated. In most cases, two separate biopsies are sufficient to obtain adequate cells for a diagnosis. In some instances, however, it may be necessary to perform up to four or more biopsies in order to obtain sufficient cells for diagnosis and/or special studies.

What are the possible complications?

FNAB by an experienced physician is very safe. The risks of FNAB are significantly less than the risk of undergoing surgery at most sites. The most common complication is minimal discomfort, followed by slight bleeding at the time of biopsy. Rarely, bleeding may occur under the skin following the biopsy and cause a bruise (hematoma). Direct pressure at the needle site will minimize these risks. Any mild discomfort in the area that persists should disappear within a day or two and should respond completely to a mild non-aspirin pain medication (such as Tylenol). Rapid swelling, excessive bleeding, or redness and marked discomfort due to infection is extraordinarily rare and should be reported to your referring physician or local emergency room immediately.

If the lump is cancerous, the risk of spreading the tumor from this tiny needle biopsy is extremely rare. Reports of needle tract seeding have only been reported with larger needles.

What are the limitations of fine needle aspiration biopsy?

In most cases, a diagnosis can be rendered by this method. In some cases an exact diagnosis may not be possible but important general information—such as whether a mass is benign or malignant—can be obtained. In these cases, additional biopsies, either surgical or by repeat FNAB, may be useful. In approximately 5% of cases FNAB may fail to find a malignancy when it is present. Thus, whether you nor your physician should take a benign diagnosis as an absolute indication to forget your lump? You should continue to follow the lump under your doctor’s care so that if it enlarges or other symptoms occur, further tests can be performed.

How will I obtain the results of my biopsy?

The results will be reported to your referring physician, usually within 24 to 48 hours. If special studies need to be performed, the results may be delayed 2 to 3 days. The pathologist interpreting your slides will produce a formal report that will be sent to the doctor who requested the biopsy. If there are other doctors involved in your care who should receive a copy of the report, please let the FNAB doctor know.

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Do you have any additional questions?

If you have any questions, you are encouraged to write them down and bring them with you on the day of your biopsy. You are also encouraged to bring pertinent x-rays, records or letters regarding your mass.

We understand that some patients have a fear of needles, or a fear of what the diagnosis may bring. We urge you to make and keep your appointment. Ignoring a mass does not make it go away or change the diagnosis. The needle that is used is extremely small, and in the hundreds of thousands of these biopsies performed annually in the United States, most patients find it to be a very straightforward, rapid, safe and virtually painless procedure. If you change your mind and no longer desire the biopsy, please notify the doctor who scheduled your appointment as well as the FNAB Service directly at 617-726-3980. This courtesy will allow for scheduling of other patients and provide an opportunity to discuss alternative diagnostic procedures.