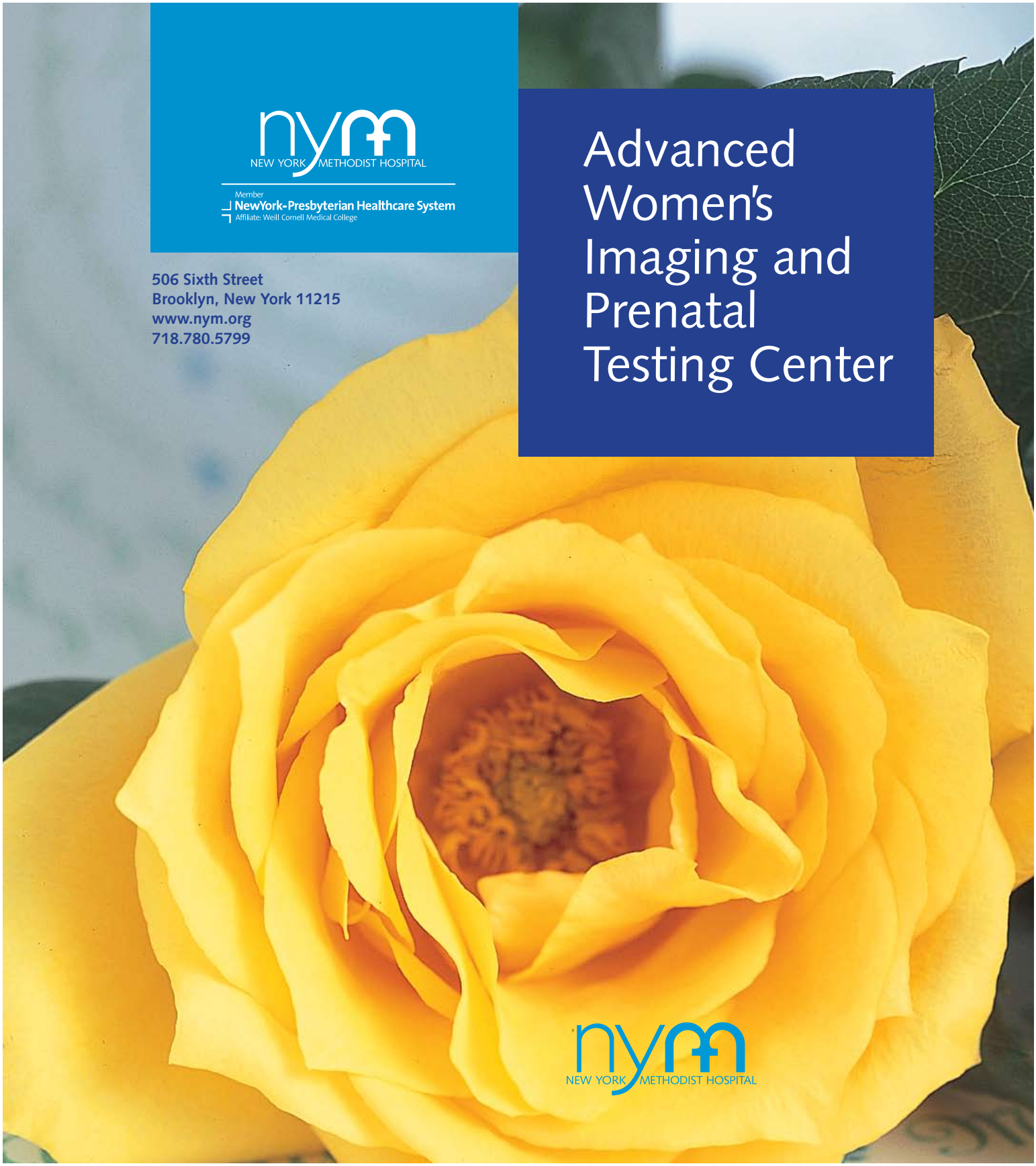

NEW YORK METHODIST HOSPITAL

Member
NewYork-Presbyterian Healthcare System
Affiliate: Weill Cornell Medical College

Advanced Women's Imaging and Prenatal Testing Center

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NEW YORK METHODIST HOSPITAL

Women of all ages are increasingly aware of the special medical issues they face. With the development of new technologies that make early detection of many diseases possible, women now have the opportunity to achieve peace of mind or maximize the chances for cure—for themselves or their babies—through regular diagnostic procedures.

Women's distinctive medical needs have motivated the creation and design of the Advanced Women's Imaging and Prenatal Testing Center at New York Methodist Hospital. With programs geared to the diagnosis of illnesses and medical conditions of concern to women of all ages, the Center focuses on prevention and early detection. A comprehensive range of modalities for determining the existence and extent of disease is offered and supported with a highly trained staff that specializes in the performance, interpretation and analysis of advanced diagnostic tests and images. Physicians at the Center include highly trained specialists in obstetrics, gynecology, radiology, ultrasonography and high-risk pregnancy.

Patients may be referred to the Center by their own obstetricians, gynecologists or other physicians.

Our Services

Prenatal Testing

It's entirely natural for expecting parents to have concerns about whether they will have a healthy baby. Fortunately, the sophisticated prenatal tests available today can help expecting parents to put worries about their baby's health to rest or, in rare cases, to make plans to manage the remainder of the pregnancy and plan for a delivery that will best meet the needs of the mother and her baby. Very few women need to undergo all of the available prenatal tests available for predicting the health of their babies. Your doctor will prescribe the tests that he or she feels are important for you to maximize your chances of a successful pregnancy and a healthy baby.

Most tests fall into two categories: laboratory tests, in which small samples of blood or tissue are taken from the mother and sent to a laboratory for analysis and ultrasound exams, in which high-frequency sound waves are reflected off the baby's body, creating an image or sonogram of the baby that can be seen on a television-type screen.

Laboratory Tests

- **Biochemical testing** involves analysis of a blood sample taken in the first and/or second trimester. It is paired, in various ways, with a nuchal fold determination (see below) to tabulate risk for Down syndrome and other chromosomal anomalies.
- **Chorionic Villus Sampling (CVS)** is a highly accurate test usually administered near the end of the first trimester. It involves a tissue sample taken from the placenta and can indicate abnormalities like Down syndrome.
- **Triple and Quadruple Screen**s are blood tests that can be performed in the second trimester. They measure levels of either three or four specific chemicals in a woman's blood and can be used to test for chromosomal disorders like Down syndrome and neural tube defects like spina bifida.
- **Amniocentesis** is performed in the second trimester. A thin needle inserted in the mother's abdomen is used to collect a small sample of amniotic fluid. The fluid is analyzed in a laboratory and is highly accurate in diagnosing chromosomal disorders and neural tube defects.
- **Miscarriage and Ectopic Pregnancy Screening** blood tests can sometimes be used, in conjunction with high-resolution ultrasound, to determine the causes of frequent miscarriages or the presence of an ectopic pregancy.

Ultrasound Tests

Ultrasound tests are painless and non-invasive. A doctor or technician applies gel to the exposed abdomen and a transducer is then moved across it. The transducer directs sound waves toward the uterus and the fetus inside it. Ultrasound does not involve x-rays and is considered harmless for both mother and baby. Our Center has the latest ultrasound equipment, providing the ability to perform color Doppler and both three and four dimensional studies. These advanced technologies allow for the clearest, most accurate possible images.

- **Nuchal Fold Determination** is a test performed in conjunction with a biochemical blood test. The ultrasound is used to measure the space on the back of the baby's neck and this measurement, combined with the results of the biochemical test, helps to determine risk for Down syndrome, congenital heart disease and other birth defects.
- **Ectopic Pregnancies** can often be confirmed through an ultrasound examination if a blood test is inconclusive—usually six to seven weeks after gestation
- **Transvaginal Ultrasound Examinations** may be conducted using a transducer in the shape of a wand that is inserted vaginally instead of being passed over the abdomen. These examinations can be used to assess the development of the baby's brain in the first and early part of the second trimester.
- **Anatomy Scans** can be performed at any time in a pregnancy. Frequently they are done in either (or both) the second or third trimester to evaluate fetal development, screen for any abnormalities and assess the health, position and size of the baby.
- **Multiple Pregnancy Evaluations** can identify and monitor the presence of more than one baby.
- **Fetal Echocardiography** is a test done in women whose doctors have reason to believe that they are at increased risk of having a baby with a heart defect. This test shows, in great detail, the structure of an unborn baby's heart.
- **Doppler Velocimetry** is a method of measuring changes in blood circulation in the umbilical cord and other vessels, that could indicate problems with the baby's growth.
- **Biophysical Profile** is a set of scores based on ultrasound assessments of fetal movement, fetal tone, fetal breathing, and amniotic fluid volume, as well as the results of non-stress testing. The profile, sometimes performed late in pregnancy, can confirm that a baby is alive and undamaged or it may indicate the need for appropriate intervention that will, ideally, ensure a healthy baby.

Breast Imaging and Ultrasound

Breast cancer is the most common cause of cancer in women. The majority of new breast cancers are diagnosed as a result of an abnormality seen on a mammogram (x-ray of the breast) and heightened awareness of breast cancer has led to an increase in the number of women undergoing mammography for screening. This, in turn, has lead to earlier detection of cancer and a significant improvement in survival rates.

- **Mammography** typically consists of two views of each breast. A film under the breast captures the images. The entire procedure takes about five minutes. Following the procedure, the mammogram will be read, on-site, by the one of Center's board certified radiologists. The results are communicated by the referring or assigned physician or by the Center's radiologist.
- **Breast Ultrasound:** Sometimes a mammogram indicates the presence of a lump, but does not show whether the lump is solid or cystic (filled with fluid). In these cases, non-invasive, painless sonography can be used to show the consistency of the lump. If the lump is filled with fluid, it is most likely a benign cyst.
- **Needle Core Breast Biopsy** is usually recommended if a solid breast lump or lesion is found. The biopsy allows a physician to examine sample cells in the lump. Traditionally, surgical biopsies have been performed in order to obtain tissue diagnosis. However, needle core biopsy is a highly accurate, relatively painless alternative to the more invasive surgical biopsy. It is performed on an outpatient basis, with local anesthesia. It involves no hospitalization, no disfiguring scarring and no recovery time. Perhaps most important, the results are available quickly. In the majority of cases, biopsies performed will turn out to reveal benign masses.
- **Ultrasound Aspiration:** Certain types of cysts and lesions can be aspirated through ultrasound cyst aspiration. This method of treatment causes no disfiguring scarring and does not require hospitalization or a recovery period.

Gynecological Ultrasound

Ultrasound can be very helpful in diagnosing a host of gynecologic disorders. This non-invasive method of viewing the reproductive organs in the pelvis to determine the nature and extent of certain abnormalities present can often offer a way to diagnose problems at a relatively early stage. In general, ultrasound can detect inflammation, fibroids, free fluid cysts, and tumors in the pelvic region. As is the case with ultrasound used in prenatal testing, ultrasound may be performed using either a transabdominal or a transvaginal approach.

- **Hysterosonograpy** or saline infusion sonography is a non-invasive study that allows for better visualization of the endometrial cavity. It can be used to determine the presence of mucosal fibroids or polyps.
- **Uterine, Ovarian and Tubal Ultrasound** is used to determine and identify the nature of any fibroids, cysts or other masses that may be present. Color Doppler equipment may be used to create studies of ovarian masses. Ultrasound may also be used to monitor follicles of patients undergoing ovarian stimulation to increase fertility. In some cases, it is recommended that patients who are taking tamoxifen for the treatment of breast cancer undergo ultrasound studies of the uterus to monitor for any changes that may occur as a result of this medication

Bone Densitometry

Bone densitometry is most frequently prescribed to predict the risk of, diagnose or monitor the treatment of osteoporosis. Osteoporosis is an abnormal extension of the decrease in bone mass that occurs in all people as they age, and leads to thin, weaker bones that make people susceptible to fractures, particularly of the vertebrae, the wrists and the hips. It often causes a loss of height and deformities of the back. Osteoporosis affects nearly 25 million Americans each year—80 percent of whom are women. Treatment for osteoporosis is now available, and there are a number of therapies that are shown to reverse bone loss.

Bone densitometry is a safe and non-invasive procedure that is very accurate and precise in evaluating bone density. The procedure evaluates the bone mass and density of fracture-prone areas, such as the wrists and hips. It is also very useful in monitoring effects of therapies to see if medications are working properly. The process is comfortable, with the patient lying fully clothed on a padded table, and it exposes the patient to less radiation than a coast-to-coast airplane flight. The scanning takes only a few minutes.

Genetic Screening and Counseling Program

Counseling and screening are available to provide information and support for people concerned about the genetic risk for birth defects, physical disabilities, mental retardation or specific diseases that they or their children may have inherited.

For the rare instances in which prenatal testing reveals problems related to heredity, parents have access to a genetic counselor who can help them interpret the results. Individuals of Ashkenazi Jewish descent have been identified a a population at increased risk for a number of diseases, including Gaucher disease, Tay-Sachs disease and cystic fibrosis. Those of African American or Mediterranean descent are at increased risk for sickle cell disease and thalassemia. Screening tests are available to determine whether individuals within these ethnic groups carry a genetic disease.

Women who are not pregnant may also have an interest in genetic screening and/or counseling, since it can detect the risk of diseases that develop later in life, including several types of cancer, notably breast, ovarian and colon cancer.

To make an appointment

Call (718) 780.5799. Be sure to let the registrar know the name of your personal physician or gynecologist to whom results should be sent.

The Center's state-of-the-art facility is conveniently located in one of the main buildings of New York Methodist Hospital, 506 Sixth Street, in Park Slope, Brooklyn.