



# Maitri Health Care for Women

Obstetrics, Gynecology and Midwifery



## Care for Women by Women Who Care

185 Tilley Drive, South Burlington, VT 05403

Phone (802) 862-7338 Fax (802) 862-8411

[www.maitriobgyn.com](http://www.maitriobgyn.com)

Hours: Monday – Friday 8:00am to 12:00pm & 1:00pm – 4:30pm

## **Congratulations on Your Pregnancy and Welcome to Maitri**

We look forward to working with you during your pregnancy and after your birth. Pregnancy, labor, and giving birth are life changing processes for most women. It is a profound, intense, and remarkable experience. We are honored and humbled that you have chosen us to participate in your pregnancy care and birth, and we will strive to support you in all the ways you need to ensure a healthy outcome.

This booklet is designed to give you an overview of your care with Maitri during your pregnancy, labor, and birth. We are committed to providing individualized care to our patients. Therefore, your care may differ depending on your specific needs. We encourage you to look through this packet when basic questions arise. If you do not find answers to your questions, feel free to call the office during normal business hours. If you are calling with a medical question, choose the prompt for our triage staff. Our triage staff has a vast amount of knowledge on pregnancy, lactation, and the postpartum period. If they cannot directly answer your question, they will speak with a provider and will call you back.

After hours, if you have an urgent concern that cannot wait until normal business hours, call the office number and select the prompt for the answering service/on call provider. A Maitri on-call provider is available for emergencies and obstetrical deliveries 24 hours a day. There is always a physician providing backup to the Nurse Midwife on call.

You will see both Certified Nurse Midwives (CNM) and Physicians (MD) during your pregnancy. Most women have approximately 14 prenatal visits during the length of their pregnancy. You may have any of the providers at your delivery with the exceptions of Emily Garcia NP, Brianna Durkin NP, Anna Gluckman NP, and Lori Daily NP. All are nurse practitioners and will not be present at your delivery. You will also see Alice Norris RN, IBCLC at your 2 week postpartum visits and as a lactation consultant, she offers visits to help with any breastfeeding problems you may encounter postpartum.

## **Maitri's Philosophy of Care for Obstetrics**

At Maitri, we are committed to providing exceptional care to women during and after pregnancy. We strive to empower women as they go through their pregnancy so they can make informed choices which best meet their personal needs and those of their family. We are here to provide education about your healthcare choices during pregnancy and labor. Our providers and staff promise to support you throughout this journey and to work together as a team to provide the best experience possible.

As an all-female practice we know what it is like to walk through pregnancy, childbirth, and parenthood. While each woman experiences these things differently, we care for you with the empathy that comes from being mothers, the compassion that comes from being human, and the skill that comes from being trained obstetrical and midwifery providers.

Maitri is:

- Individualized antenatal care according to nationally accepted guidelines for physicians and midwives
- Nutritional advice
- Movement and exercise advice
- Options for hydrotherapy and water births
- Non-invasive alternatives in labor
- Postpartum support

Maitri Health Care for Women is located in an integrative facility which offers many alternative/holistic services including chiropractic, massage, acupuncture, naturopathy, hypnotherapy, mental health, biofeedback and lactation services.

## **Meet our Providers**



## **Amy Thibault, MD**

Amy lives in Essex Junction with her husband, Eric Ganguly, M.D., Assistant Professor of Gastroenterology, and her two children, Sam and Anna. She is originally from Massachusetts. She brings tremendous compassion to Maitri, and has a fantastic sense of humor. She is particularly interested in colposcopy, gynecologic surgery and obstetric ultrasound. In her free time, she enjoys cooking, skiing and hiking. Amy joined Maitri in 2003 and became a partner in 2006.

### **Education**

- College of Holy Cross 1991 BA in Psychology
- Post-baccalaureate training at Northeastern University and Harvard University
- Medical Doctor, University of Massachusetts Medical School 1999
- Obstetrics and Gynecology, UVM/Fletcher Allen Healthcare Residency 2003
- American College and Gynecology Board Certified in 2004



## **Jennie Lowell, MD**

Jennie Lowell, MD joined Maitri in 2004 after completing her OB/GYN residency at Fletcher Allen Health

Care. She married her high school sweetheart, Derek, in 1998. They reside in South Burlington with their 3 children. Baxter was born in 2004 (Kristen delivered, birthing stool birth, 7lb, 14oz), Paige followed in 2006 (Kristen delivered, waterbirth, sunnyside up), and Emmett completed their family in 2008 (Kristen again, waterbirth, 12 days late!). Jennie believes that birth (regardless of the mode of delivery) and motherhood are life transforming events in a woman's life. She feels privileged to be a part of these most important moments. "When Kristen attended my births, I was comforted by her presence. Her being there gave me a feeling of safety and let me know that everything I was experiencing was normal so that I could let go of my fear during the intense physical process of birth (ie: in lots of pain!). This empowered me and allowed me to do what I needed to do – focus on just giving birth and not on worrying. This was a gift. It is one that I hope to return to women whose births I attend." Jennie is committed to supporting women in any way that they need as they embark on their journey through pregnancy and into motherhood.

## Education

- Bachelor of Science in Human Development and Family Studies with a concentration in Women's Studies, Cornell University, 1996
- Medical Doctor, Pennsylvania State College of Medicine, 2000
- Obstetrics and Gynecology, UVM/Fletcher Allen Health Care Residency, 2004
- Board Certified in Obstetrics and Gynecology 2005
- Fellow American College of Obstetrics and Gynecology



**Julie Wade, MD**

Julie first met the Maitri ladies during her OB/GYN residency at Fletcher Allen. After finishing residency she practiced in Plattsburg, NY for 18 months and then was glad to come back to VT to practice in 2008. Julie lives in Hinesburg, VT with her husband Gil, their daughters Anna and Eliza, kitty Peanut, and dog Saima and a flock of backyard chickens. Her background also includes ski instructing, 5<sup>th</sup> grade teaching, bread making, being a vet tech and working for the Appalachian Mountain Club. She is a believer in being there to listen to what women want and need in pregnancy and labor. Because Anna and Eliza were born early by cesarean section, she has an understanding of the challenges of adjusting personal birth expectations.

## Education

- Dartmouth College, Bachelor of Arts in Geology and Environmental Studies 1991
- Medical Doctor, University of Vermont College of Medicine 2002
- Obstetrics and gynecology UVM/Fletcher Allen Health Care Residency 2006
- Board Certified in Obstetrics and Gynecology 2009
- Fellow American College of Obstetrics and Gynecology



### **Lindsay P Smith, MD**

Lindsay Smith joined Maitri in August of 2016 after completing her OBGYN residency at Dartmouth Hitchcock Medical Center in Lebanon, NH. Prior to that, she completed her medical degree at the University of Vermont.

Lindsay and her husband Dan both grew up in Vermont and they are both thrilled to be returning to the Burlington area. Outside of medicine, she enjoys running, biking, skiing and traveling.

Lindsay believes in offering compassionate and respectful care for women and their families throughout both beautiful and challenging moments.

In her practice, Lindsay provides full spectrum general obstetric and gynecologic care from adolescence through menopause. Her particular interests include obstetrics, colposcopy and laparoscopic surgery.



### **Katie Areson, MD**

Katie Areson MD joined Maitri in October of 2017 after she completed her medical degree at the University of Vermont where she met her husband Chester. After completing residency at Saint Joseph Hospital, she is excited to be moving back to Burlington with their two children. Katie believes in providing compassionate care to patients through communication and shared decision making. Katie's particular interests include obstetric ultrasound and laparoscopic surgery. Outside of medicine Katie is an avid runner and also enjoys spending time outside biking, hiking and skiing. Katie is thrilled to be joining the Maitri OB/GYN team!

#### **Education**

- Bowdoin College, BA in Biology and French Brunswick ME 2004
- Boston University, Master in Public Health Boston, MA 2008
- University of Vermont Medical Center Burlington VT 2013
- Saint Joseph OB/GYN Residency Denver, CO



**Kristen Werner, CNM**

Kristen Werner CNM joined Maitri in 2003 after 5 years of providing midwifery care at Fletcher Allen’s midwife service. Prior to this she worked on birthing units in Charleston, SC, Central Vermont Hospital and at Fletcher Allen. She has nursing experience in ICCU and pediatrics as well. She is originally from Calais, VT and believes that her love for pregnancy care and birth came from her Mother who has 5 children.

Kristen has a strong belief that how women are treated, what they learn and their general feelings about their abilities remain with them as a source of strength, identity and happiness through their mothering, in their relationship with their partner and beyond. By providing informed consent and basic education, women can make health choices that are unique to their beliefs and needs. Kristen enjoys labor support, presence in the care she provides and is a strong advocate for women. Kristen has four children all were birthed by her unmedicated by her choice. It is an honor to help couples learn to labor, make choices that meet their goals and expectations. Additionally, she offers well woman/annuals, gynecological services and breast care. Kristen and her husband Michael live in Richmond, VT.

**Education**

- Bachelor of Science in Nursing, University of Vermont School of Nursing 1990
- Frontier School of Nurse Midwifery 1997
- Masters in Nursing Case Western Reserve
- Certified Lactation counselor
- Certified by American Nurse Midwifery Certification Board March 1998

**Prenatal and Postpartum Visits**

**How often will I come for prenatal and postpartum visits?\***

**8-31 weeks** ..... Once a month

**32-34 weeks** ..... Once every two weeks

**35 – 41 weeks** ..... Once a week

**2 weeks postpartum** ..... One visit

**6-8 week postpartum** ..... One visit

\*There may be individualized variations in this care schedule depending on your pregnancy and health needs

## **What you can expect:**

### **Initial visit**

Today at your visit we discussed a LOT of information and it's normal to feel overwhelmed. Take some time to look over the education packet and the birth journal. Bring the birth journal to each visit, so you can record your progress. While waiting for your appointment, we encourage you to take time to read over the *reminders*. Use this journal to write down any questions you may have, and bring this with you to your appointments. At this visit, you may have had basic prenatal lab work and we spoke to you about genetic testing options. If you decide you would like to pursue genetic testing, please call the triage department as soon as possible to schedule these time-sensitive tests. A provider will review your prenatal lab work at your next prenatal visit.

### **Routine office visits**

Regular monthly visits are 15-20 minutes long. If you have more questions and feel you need more time, please ask us. We are happy to schedule additional visits if you feel you need them. During this visit we will measure your blood pressure and weight, review your prenatal labs, listen to the baby's heartbeat, and measure the baby's growth. We will provide education at each visit as it pertains to your baby's gestational age. We will talk to you about your adjustment to pregnancy, provide anticipatory guidance for labor, birth, breastfeeding and transition to parenthood, and address any questions or concerns you may have. Additional testing may be considered or recommended.

Due to the nature of obstetrics, we occasionally have unexpected situations occur during routine pregnancy office visits. This may make us late for our next appointment. Please be assured that we will not rush the next appointments and will answer/address all of your questions and concerns.

We understand your time is valuable and we strive to keep appointments running on time. For this reason, Maitri's policy for patients arriving 10 minutes late for a scheduled appointment is to reschedule that appointment. This is only fair to the rest of the patients who have arrived on time.

### **Testing During Your Pregnancy**

Some tests are standard for safe pregnancy care, and set forth in guidelines by the American College of Obstetrics and Gynecology. All tests are optional. We will discuss with you a number of genetic screening tests that are offered. Please refer to the genetic screening packet. We recommend all women undergo initial prenatal blood work, a pap smear with a bacterial



cervical swab, a gestational diabetes screen between 24-28 weeks and a Group Beta Strep swab at 35-37 weeks. The initial labs consist of a urine culture to test for a urinary tract infection and blood work tests for HIV, Rubella, Varicella, Hepatitis B, Syphilis, Blood type and count. These tests give us beneficial information that allows us to tailor your care as needed. Some women are not due for their pap smear and we will skip any unnecessary tests after consulting with you. If there are tests you do not want or have questions about, do not hesitate to ask us for more information.

### **Ultrasounds**

Repetitive ultrasounds during pregnancy are not recommended by the American College of Obstetrics and Gynecology. In general, it is our practice to perform an ultrasound during the first visit to establish accurate dating of your pregnancy. Another ultrasound performed at approximately 20 weeks, assesses fetal growth, anatomy and placental location. If desired and if time permits, we will attempt to determine gender. We do not perform genetic ultrasounds (a congenital anomaly screen or Level 2 ultrasound). It is important for you to understand some babies can have problems which are unable to be detected by any ultrasound.

Many couples ask for additional ultrasounds to determine the sex of their baby, or just to "check that everything is okay". We generally reserve our ultrasound rooms for patients who have a medical indication for an ultrasound.

If medically indicated, a Level 2 Ultrasound at UVM Medical Center's Fetal Diagnostic Center will be offered. This ultrasound may be indicated for women age 35 or older at delivery, twin pregnancies, women on certain medications in pregnancy, women with a history of birth defects in their families, and/or other situations that are individually assessed.

## **The Hospital**

### **Preregistration**

You will be given a hospital pre-registration packet around 20 – 24 weeks. Please complete the appropriate forms and mail them to UVM Medical Center in the provided envelopes. Additional forms are to be completed after the birth of your baby. Early receipt of this information is essential so that all information is in the hospital's system and there will be no delay in your care.

### **Labor and Delivery**

If you think you are in labor call the office anytime day or night to talk to a provider. Wait to go to the hospital until you have heard back from a provider, unless it is an emergency. If for some reason you do not hear back from a provider in a timely manner call the office and ask the answering service to page the provider again. If you feel it is an emergency call 911.

### **Parking at UVM Medical Center**

During the day from 6 am-10 pm you can park in the parking garage. At night, after 10 pm, park and come in through the Emergency Department.

### **Labor & Delivery (McClure 7) Visitor Policy**

We abide and support the policies which may change during different seasons. These regulations can seem strict but they are designed to keep you and your baby healthy in the early postpartum period. **Seasonal changes will be posted at Maitri when they are sent from the Hospital and the Public Health Department.**

### **Claire M. Lintilhac Birthing Center - McClure 7: (802) 847-3830**

- A limit of three visitors in the birthing room at a time. This includes the primary support person and two others which may rotate throughout the labor.
- Additional visitors may wait in the visitors lounge at the entrance of the birthing center or in the main lobby.
- No Children under 13 years old in the delivery room unless they are siblings to the newborn.
- Siblings 12 years and under must be accompanied by an adult. This adult and child count as one support person. This adult cannot be the main support person.
- Visitor(s) may be asked to leave the delivery room by the nurse/physician/midwife to ensure patient safety.
- One support person allowed in the operating room during c-sections – except in an emergent situation.
- One support person allowed in the labor room during epidural placement.
- Visitors should not bring food into the patient's room unless OK'd by the laboring woman.

### **Mother/Baby Unit – Baird 7**

- Visiting hours are from 10 a.m. to 8 p.m. daily.
- All visitors must be in good health and 12 years of age or older to visit the unit. Children under 12 who are siblings of the new baby may visit during visiting hours with adult supervision.
- A limit of three visitors at the bedside at all times.
- If patient room has double occupancy, support person/partner cannot stay overnight.

## **Labor & Delivery**

### **Labor and delivery**

Once you arrive on labor and delivery, you will be asked to sign a consent form and be taken to your room. After you change, the nurse will check your blood pressure and temperature and put the fetal monitors on to perform a non-stress test (NST). If a Maitri provider is not on Labor and Delivery, a resident doctor will check your cervix and update the on-call provider. With your

input, we will then decide the best plan of care. Establishing a plan of care is a fluid process which can change for many reasons during a labor. We believe in maintaining an open dialogue with you at all times.

If you have not had any complications in pregnancy and you are not requesting an epidural, the nurse will take the monitor off. Subsequently, we will listen to the baby's heart rate every 15 – 30 minutes depending on the stage of labor you are in. If you are group beta strep positive or requesting an epidural we may start an IV at this time.

### **Water birth**

Many women use hydrotherapy to decrease labor discomfort. In fact, with natural childbirth, a majority of women utilize this option. We support the use of water for labor and birth, if desired. UVM Medical Center, however, has some restrictions on water birth. The hospital encourages women to be part of a research protocol regarding birth in the water. As part of this protocol, we are required to outline for you some of the potential risks of water birth, also known as water birth informed consent. This is a hospital protocol.

Water birth has some potential advantages such as pain relief, decreased use of Pitocin to increase the strength of your labor, shorter second stage and decreased perineal trauma or lacerations. Midwives have used water for both labor and pain relief during birth for many years, however, there are no rigorous scientific studies to support this practice.

Water birth is not appropriate for every woman. For some women, it is the right choice. If we do not think you are a good candidate for a water birth, we will discuss this with you.

### **Epidurals**

If you would like to have an epidural for your birth you may elect to have a consultation with an anesthesiologist prior to your labor. You may call the Anesthesia Clinic at 847-2415 anytime during your pregnancy to speak with an OB Anesthesiologist. Anesthesia services are available 24 hours a day at UVM Medical Center.

Even if you do not plan to have anesthesia you may choose to have a consultation as you become informed about your birthing choices. Epidurals are generally very safe. We can help you decide if this is a good option for you. Rarely, we may recommend IV medications early in labor, for anxiety, rest or pain relief. Sometimes IV medications are recommended after the birth depending on individualized needs.

### **Medical Intervention**

You have chosen a unique group of providers. We trained differently with influences from medical and midwifery models of care, but the one reason we work together in this practice is because we view pregnancy and birth in a similar manner.

We are here to help you have a healthy baby. We have the skills and knowledge to intervene if necessary, but view this as a natural process which usually progresses without any problems.

We do not “routinely” place an IV, or perform an episiotomy, withhold food or beverages, recommend continuous monitoring, or suggest anesthesia or pitocin (a medication used to encourage your uterus to contract). However, there are circumstances in which we may recommend one of these or other additional interventions.

We support women who want natural childbirth, but we are not opposed to anesthesia if this is what you have chosen. In fact, in some situations, anesthesia may help labor to progress. We are happy to help and support you in whatever you choose. Some women choose to have a doula present for their labor. A doula is someone who is trained in providing labor support. If you are thinking of this as an option, we encourage you to meet with several doulas in order to find the support person who is right for you. A doula charges an additional fee not covered by insurance. Resources are posted on our bulletin board by the check-out desk. There is a “Doula Scholarship Fund” which provides need-based financial aid to families who couldn’t otherwise afford to hire a birth doula. You can find more information on <http://www.handlewithlovevt.com>

Occasionally during your labor, a situation may arise in which we believe the best decision for you and your baby is to assist your delivery with a vacuum or to proceed with a cesarean delivery. This decision is not made lightly. We will have a discussion with you regarding our recommendations and outline your options so you will understand and be able to make an informed decision.

### **Resident doctors & Students in Your Care**

Our hospital affiliation is with The University of Vermont Medical Center, which is a teaching hospital. To become a physician, one must attend medical school and complete a residency. After graduating from residency you are an attending physician, which means you can practice medicine without supervision. If you choose to deliver at UVM Medical Center you are choosing to deliver in a teaching hospital, and residents may participate in your care. There may be circumstances which arise during pregnancy where we would like you to go to labor and delivery for assessment. The residents are an invaluable help to the Maitri providers in these situations as they are available to assess you if the on-call provider is not immediately available.

We all trained at UVM Medical Center. We can say, without a doubt, we would not be where we are today without women like you. Please recognize you are the most important teachers for the medical professionals of the future. Be assured, the residents only perform procedures they are qualified to perform (such as cervical exams). We are your providers, and we will be there for you as needed.

Medical students are also involved in many births. While, again, we urge you to involve students in your care, medical student involvement is optional and at your discretion. If you would like to discuss this further, please do so with a provider.

## **Postpartum**

After the baby's birth you will be on Labor and Delivery for approximately 1 – 2 hours. During this time we will frequently monitor your blood pressure, pulse and vaginal bleeding. With your consent, we will also assist you with breastfeeding and examine your new baby. The baby will receive his/her initial newborn medications: erythromycin antibiotic eye ointment and an injection of Vitamin K. During this time we encourage you to be skin-to-skin with your newborn, especially for the first 4 hours of life. Once we are sure you and your baby are both doing well you will be moved to the maternity unit. While the hospital staff and Maitri providers prefer private rooms for everyone, single rooms are not always available.

Most babies are able to room-in with their mothers. If you do not have a roommate, your partner may stay in your room with you overnight.

While you are on the postpartum unit, residents and hospital staff including nurses, lactation consultants and other hospital personnel will care for you and coordinate your discharge plan. Maitri providers will visit you during your stay or as medically needed. Usually, we are there in the morning. If you have gone outside, or are not on the unit, we may not see you.

If you have chosen to have your baby circumcised, this is often the time that the procedure is performed. It is to your advantage to review the information and sign the consent during your pregnancy. Circumcision is not medically recommended and insurances do not always pay for the procedure. This is the responsibility of the patient.

If you have any concerns or questions regarding hospitalization, bring them to the attention of a provider at your prenatal appointments. The appointments from 36-40 weeks are a good time to review these questions.

### **Postpartum visit**

After you are discharged from the hospital, you will have two postpartum visits at Maitri's office. At 2 weeks postpartum you will see a post partum nurse or lactation consultant. They will discuss with you if you are having any breastfeeding related problems. At this visit we will discuss your birth experience, breastfeeding, healing, adjustment to parenthood, and birth control options. You will return between 6-8 weeks postpartum for a second postpartum visit. This appointment is typically with your delivering provider. Call the office when you get home from the hospital to schedule these appointments.

Maitri provides gynecologic women's health care beyond pregnancy, lactation care, and postpartum, and we hope you will continue your care with us.

### Hospital Bag Checklist

<input type="checkbox"/> Copy of Pre-Admission paper work	<input type="checkbox"/> Change for the vending or coffee machine
<input type="checkbox"/> Phone numbers for your doctor and the baby's doctor	<input type="checkbox"/> Food, snacks, gum for partner
<input type="checkbox"/> Insurance cards	<input type="checkbox"/> Partner's toothbrush and toothpaste
<input type="checkbox"/> Infant car seat (leave this in the car until the day you are discharged from the hospital)	<input type="checkbox"/> Music tapes or CDs and player
<input type="checkbox"/> Camera and/or camcorder	<input type="checkbox"/> Pajamas
<input type="checkbox"/> Copy of your birth plan	<input type="checkbox"/> Slippers or comfortable socks
<input type="checkbox"/> Notebook and pen	<input type="checkbox"/> Lip balm
<input type="checkbox"/> Baby book (for footprints, etc.)	<input type="checkbox"/> Hair band or elastic
<input type="checkbox"/> List of phone numbers of family and friends	<input type="checkbox"/> Toiletries (toothbrush, toothpaste, soap, lotion, shampoo, deodorant, hair dryer, hairbrush, glasses, contacts and supplies)
<input type="checkbox"/> Phone card or cell phone and your cell phone charger	<input type="checkbox"/> Baby's going home clothes –plan for the weather
<input type="checkbox"/> Lollipops or stick candy	<input type="checkbox"/> Your going home clothes – should be pregnancy clothes

## **Your Baby**

### **How to choose a Pediatrician for Your Child**

Ask for recommendations from:

- Your obstetrical provider
- Your friends and family
- Your family doctor
- Your local hospital
- Your local yellow pages

**Many Pediatric offices offer “Meet and Greet” appointments**

### **QUESTIONS TO ASK A POTENTIAL PEDIATRICIAN**

1. How many doctors are in the practice?
2. Can you request to see only one doctor for appointments other than emergencies?
3. How often are doctors other than those in the practice “on call”?
4. With which hospital(s) are the doctor affiliated?
5. What percentage of the practice breastfeed their babies?
6. Do they separate well and sick children in their waiting room? If not, and if your child is vulnerable to infections, will your child be permitted to go directly to an examining room?
7. When are calling hours for simple questions?
8. Can parents call at other times of the day/night with questions?
9. What specialists might he recommend or consult with?
10. Do they make their records fully available to the parents?
11. What third-party insurance carriers do they accept?

### **ASK OTHER PARENTS**

1. Do they trust and like this doctor? Why or why not?
2. Do they frequently recommend medications or surgery?
3. Do they handle children and babies with understanding and care?
4. Do their children like this doctor?

## **Circumcisions**

Circumcision is the surgical removal of the foreskin of the penis. This leaves the tip of the penis exposed. This surgical procedure may be performed with or without anesthesia 12-24 hours after your baby boy is born. This time period allows time to rule out any bleeding problems or any other type of problem which might make the procedure medically inadvisable.

Circumcision is an elective procedure. It is your decision. Often it is done for religious or social reasons. There are no proven health benefits resulting from this procedure, although removal of the foreskin may make cleaning the penis easier. Good hygiene can easily be taught to an uncircumcised male.

“The updated position of the American Academy of Pediatrics is that the preventative benefits of circumcision outweigh the risks of the procedure. Although health benefits are not great enough to recommend routine circumcision for all male newborns, the benefits of circumcision are sufficient to justify access to this procedure for families choosing it and to warrant third-party payment for circumcision of male newborns.” The American College of Obstetricians and Gynecologists Committee on Obstetric Practice supports this position.

Circumcision is usually an uncomplicated yet not totally harmless procedure. Infant death can result as a complication, but this is extremely rare. Bleeding which requires stitches or other medical care occurs approximately once in a hundred times. Infection which requires antibiotic treatment may occur once in every 200 circumcisions. Injury to the penis which could result in scarring or deformity has been reported to occur approximately three times per 5,000 circumcisions.

There are a small number of uncircumcised men, approximately one in every thirty who require circumcision at a later time for medical reasons. Complications are more likely to occur if circumcision is delayed.

The decision whether or not to circumcise your baby boy is yours. There are some congenital conditions of your baby’s penis which makes circumcision medically contraindicated or even unnecessary. If this situation arises, your physician will explain this to you. Talking with your pediatrician may be helpful.

If you do choose to have your baby boy circumcised, you will be asked to sign a special permit in the hospital. At that time, the complications described to you in this article will be further explained to you. Plan to remain in the hospital two to three hours after your baby has been circumcised. This time period allows healing to begin.

### **Circumcision and your Insurance**

Circumcision is still considered an elective procedure. With the increasing costs of health care, many insurance companies are not paying for male circumcision, just as they will not reimburse for other elective procedures.

If you decide to have your son circumcised, you will need to contact your insurance company to confirm that this procedure is a covered benefit. You are personally responsible for payment to Maitri Health Care for Women.

**\*\*\*Maitri requires advance payment in full prior to performing the procedure.**



**Maitri's charge for a circumcision is \$550.00. If you pay for the procedure prior to your 36<sup>th</sup> week of pregnancy we will give you a 20% discount or \$440. Payment after that will be the full \$550.\*\*\***

If you do not know the sex of your child, but know that if it is a male you would want him circumcised, you will need to pay the fee. If you have a girl, you will be refunded the payment.

## **Wellness in Pregnancy**

- Medications in Pregnancy
- Good nutrition in pregnancy
- Building blocks for a healthy pregnancy
- Weight gain in pregnancy
- Listeriosis
- Mercury in fish
- Herbs in pregnancy
- Remedies for morning sickness
- Toxoplasmosis
- Travel in pregnancy

## **Medications in Pregnancy**

\*The use of herbal medicine during pregnancy should be discussed with a provider prior to use.

\*Call the office if you have a fever over 100.5\*

**Over the Counter Medications:** We recommend you refrain from use of medications in the first trimester (the first 12 weeks), unless absolutely necessary. If needed, the following medications are considered safe in pregnancy:

**For heartburn or GI upsets:**

- For acid indigestion (Tums, Rolaids, Mylanta, Maalox)
- For gas pain (Gas X; Mylicon; Phazyme)
- Pepcid

**For cough:**

- Robitussin DM
- Cough drops
- Vicks Vaporub
- Honey

**For sinus congestion:**

- Humidifiers
- Chlortrimeton
- Netti Pots
- Warm fluids
- Warm, moist compresses to cheeks and forehead

**For pain and low grade fevers:**

- Tylenol (regular or extra strength, no more than 4000 mg per day)

**For allergy relief:**

- Chlortrimeton allergy tabs
- Claritin
- Teldrin

**For constipation:**

- Be sure to drink at least 8 glasses of water a day
- Take a gentle walk every day
- Fiber (Metamucil, Citrucel)—be sure to also drink lots of water with these or they won't work!
- Stool softener (Colace, Ducosate Sodium)
- Laxatives (Peri-Colace, Dulcolax)

**Hemorrhoid relief:**

- Tucks
- Preparation H with hydrocortisone
- Witch Hazel
- Cold compresses

**Insect bites:**

- Plain calamine lotion
- Non-medicated skin creams

## **Nutritious and balanced diet for you and your unborn baby**

The food you eat every day while you are pregnant builds up the bones, muscles, and brain of your baby. \*Unless you are suffering from morning sickness or are ill, it is not healthy for you and your unborn baby to go even 24 hours without nutritious food!\*

The *American College of Obstetrics and Gynecologists (ACOG)* recommends that pregnant women should consume the following foods each day:

**9 servings from the bread, cereal, rice, and pasta group:**

Whole grain breads and rolls

Cereals or pancakes: Wheatena, 100% bran flakes, granola, shredded wheat, wheat germ, oatmeal, buckwheat or whole wheat pancakes

Corn bread, corn tortillas, corn/bran/whole wheat muffins, waffles, brown rice

A whole potato- any style (preferably not fried)

**4 servings from the vegetable group:**

1 cup of fresh, green, leafy vegetables: mustard, beet, collard, dandelion, or turnip greens, spinach, dark green lettuce, cabbage, broccoli, kale, Swiss chard, green pepper, squash, etc.

½ cup of cooked or chopped raw vegetables OR ¾ cup of vegetable juice

**3 servings from the fruit group:**

1 piece of fruit or 1 large glass of juice: Apple, orange, banana, grapefruit, lemon, lime, papaya, tomato, etc.

½ cup of berries OR ½ to ¾ cup of fruit juice

**3-4 servings from the meat group:**

Lean beef, veal, lamb, pork, poultry, fish: 2 to 3 ounces of cooked lean meat, poultry, or fish (this portion is about the size of your palm, or a deck of cards)

Dry beans, eggs, and nuts: ½ cup of cooked dry beans; one egg, 2 tablespoons of peanut butter, or 1/3 cup of nuts.

1 serving of fish per week (Do not eat Lake Champlain fish, and only eat from the accepted fish group- see below) you can check online at [www.cfsan.fda.gov](http://www.cfsan.fda.gov) OR [www.epa.gov/ost/fish](http://www.epa.gov/ost/fish)

**Water:**

Drink a minimum of 64 ounces of water per day. A general guideline is to drink half of your body weight in fluid ounces of water each day. You can tell if you are drinking enough by noting the color of your urine. If your urine is clear, or very light yellow, you are doing well. If your urine is darker than light yellow, try drinking more water.

**Alternative protein combinations include:**

Rice with beans, cheese, sesame, milk.

Cornmeal with beans, cheese, tofu, milk.

Beans with rice, bulgar, cornmeal, wheat noodles, sesame seeds, milk.

Peanuts with sunflower seeds, milk.

Whole wheat bread or noodles with: beans, cheese, peanut butter, milk, or tofu.

**For each serving of meat, you can substitute these quantities of cheese:**

Brick (4 ounces)

Cheddar (3 ounces)

Cottage Cheese (6 ounces)

Longhorn (3 ounces)

Muenster (4 ounces)

Monterey Jack (4 ounces)

Swiss (3 ounce)

## Building Blocks for a Healthy Pregnancy

It is essential to eat a well-balanced diet that includes a wide variety of foods each day to ensure an adequate intake of all nutrients. Eating for TWO, baby and you, focuses on 5 nutrients; Calcium, Iron, Protein, Folic acid, and Vitamin C. These nutrients are among those that have the greatest need for increase during pregnancy, and for which insufficient intake is the most prevalent. Remember, it takes an additional 80,000 calories to produce a full term infant, averaging about 300 extra calories daily throughout your pregnancy. The active woman may need additional calories. These additional calories contribute to the weight gain necessary for optimal development of your baby. Choose these extra calories wisely by making good food choices for you and your baby. Try to limit your intake of highly processed, salty, and sugary foods. Be sure your diet includes:

CALCIUM	IRON	PROTEIN	FOLIC ACID	VITAMIN C
Calcium is needed to build baby's bones and teeth and to keep yours strong too. You and baby need 3-4 servings of calcium rich foods/beverages daily.	The need for iron is high in order to form new red blood cells for both you and baby. Although you may be taking an iron supplement, be sure to also eat iron rich foods daily. Vitamin C helps your body absorb iron.	Protein provides the building blocks for the baby's growth and supporting tissues; including the placenta and uterus. Choose a protein-rich food at each meal and each snack.	Your need for folic acid doubles during pregnancy in order to produce new cells. Choose foods containing folic acid each day.	You need Vitamin C to help form the baby's connective tissue, skin, and tendons. This vitamin helps form the "cementing agent" that holds new cells together. Choose at least 2 Vitamin C rich foods each day.

NUTRIENT	EXCELLENT SOURCE	GOOD SOURCE
<b>CALCIUM</b>	Low fat yogurt (plain) 1 cup Citrus Hill plus calcium orange juice- 8 oz Low fat milk 2%- 8 oz Salmon with bones (canned)- ½ cup Hard cheese (cheddar)- 1 oz	American cheese- 1 oz Collard greens cooked- ½ cup Custard baked- ½ cup Baked beans in molasses- ½ cup Kale cooked- ½ cup Cottage cheese low fat 2%- ½ cup

		Tofu (soybean curd)- 2 oz	
<b>NUTRIENT</b>	<b>EXCELLENT SOURCE</b>	<b>GOOD SOURCE</b>	
<b>PROTEIN</b>	Poultry roasted- 3½ oz Fish (flounder/sole) baked- 3½ oz Lean meat cooked- 3 oz Cottage cheese low fat 2%- ½ cup Low fat yogurt, plain- 1 cup Baked beans in molasses – ½ cup Peanut butter- 2 TBS Low fat milk 2%- 8 oz	Hard cheese (cheddar)- 1 oz Sunflower seeds- 1 oz 1 large egg cooked Lima beans cooked- ½ cup Tofu- 2 oz	
<b>NUTRIENT</b>	<b>EXCELLENT SOURCE</b>	<b>GOOD SOURCE</b>	<b>FAIR SOURCE</b>
<b>IRON</b>	Lean meat, cooked- 3½ oz Baked beans in molasses- ½ cup Lima beans, cooked- ½ cup Sunflower seeds- 1 oz Spinach cooked- ½ cup Fish (flounder/sole) baked- 3½ oz Turkey roasted- 3½ oz	Peas cooked- ½ cup Tofu- 2 oz Chicken roasted- 3½ oz 1 large egg cooked Enriched rice cooked- ½ cup Whole wheat bread- 1 slice Dried prunes- 4 medium Dried apricots- 4 halves Shredded wheat- 1 biscuit Peanut butter- 2 TBS Fortified cereals (labeled 100% USRDA for iron)- 1 oz Black beans cooked- 1 cup Garbanzo beans cooked- 1 cup Pinto beans cooked- 1 cup Oysters or clams- 3 oz	Canned chili con carne- 1 cup Liverwurst- 2 oz Navy beans- 1 cup Soybeans cooked- 1 cup Split pea soup- 1 cup Sardines- 3 oz
<b>NUTRIENT</b>	<b>EXCELLENT SOURCE</b>	<b>GOOD SOURCE</b>	
<b>FOLIC ACID</b>	Asparagus cooked- ½ cup Brussel sprouts cooked- ½ cup Fortified cereal- 1 oz Citrus Hill plus calcium orange juice- 8 oz Romaine lettuce- 1 cup Wheat germ- 2 TBS 1 medium orange	Beets cooked- ½ cup Sweet potato baked- 1 medium 1 large egg cooked Whole wheat bread- 1 slice	

<b>NUTRIENT</b>	<b>EXCELLENT SOURCE</b>	<b>GOOD SOURCE</b>
<b>VITAMIN C</b>	Grapefruit juice- 8 oz Citrus Hill plus calcium orange juice- 8 oz 1 medium orange Cantaloupe- 1 cup Broccoli cooked- ½ cup	Strawberries- ½ cup Grapefruit ½ medium 1 medium tomato Cauliflower cooked- ½ cup 1 medium baked potato

Iron is added to some foods, so read the label. If a food contains 100% of the USRDA for iron, it is considered an excellent source. If it contains 45% it is a good source, and 25% is a fair source. Food cooked in cast iron pots or pans will contain more iron.

These Vitamin C foods help increase iron absorption when eaten together: (example: drink a glass of orange juice with your prenatal vitamin containing iron)

#### 0. Oranges or juice

- Grapefruit or juice
- Strawberries
- Cantaloupe
- Broccoli
- Green or red peppers
- Tomatoes or juice
- Leafy green vegetables
- Cabbage (raw)
- Potato (baked)

## **Nutrition:**

If you would like you to personalize your pregnancy diet you can go online to

<http://www.choosemyplate.gov/pregnancy-breastfeeding/pregnancy-nutritional-needs.html>.

For free pregnancy nutritional information, recipes, shopping lists, and exercise information online, go to <http://babyfit.sparkpeople.com/>, click on the pregnancy tab, then click on Pregnancy nutrition, scroll down and click on Pregnancy Nutrition101.

We can refer you to another practitioner in our office building who specializes in nutrition during pregnancy. You should check with your insurance to determine if this is a covered benefit.

## **Weight Gain**

How much weight should you gain during pregnancy? No single amount is appropriate for every pregnant woman.

Proper weight gain depends on many variables:

- Your pre-pregnancy weight and stature
- Your Body Mass Index (BMI)- (see chart below to calculate)
- The quality of your diet before and during pregnancy
- Ethnic background
- Number of previous pregnancies

Until the early 1970s, most North American obstetricians placed great emphasis on limiting weight gain to between 14-17 lbs., believing this range would result in easier labors and less postpartum obesity. It was assumed that the fetus always managed to extract the necessary nutrients from the mother. **Research now shows that weight gain of 20-25 lbs. results in more full-term pregnancies and healthier babies.**

If the quality of your diet is typically healthy, and your BMI falls within the healthy and normal range, you will probably gain between 25 and 35 lbs. Recommended weight gain is done on an individual basis and your provider will discuss this with you at your first visit. Excessively large weight gains may increase the risk of delivery complications and increase the difficulty of returning to pre-pregnancy weight.

The point to keep in mind is your weight gain is less important than the quality of your diet. If you eat consistently well, in appropriate quantities, and if you maintain an active lifestyle that includes moderate exercise, you can trust that the amount of weight you gain is right for you.

### **Weight gain in a normal pregnancy:**

About 12 pounds will be in the maternal stores of fat, protein, and other nutrients.

About 4 pounds will be an increase in fluid volume.

About 2 pounds is in breast enlargement.

About 2 pounds is for the uterus.

About 2 pounds is amniotic fluid.

The average baby is about 7-7 ½ pounds.

If you add all of that together, you gain about 25 pounds in a normal pregnancy. This means that you can expect to gain approximately:

- 25% of your weight between weeks 12 and 20.
- Another 50% between weeks 20 and 30.
- Remaining 25% between weeks 30 and 36

**AVERAGE WEIGHT GAIN DISTRIBUTION DURING PREGNANCY:**

Baby	7.5 lbs.
Placenta	1 lb.
Uterus	2 lbs.
Amniotic fluid	2lbs.
Breasts	1lb.
Blood Volume	2.5lbs
Fat	5lbs.
Tissue fluid	6lbs.
<b>TOTAL</b>	<b>27 lbs</b>

**BMI CALCULATOR**

Weight	lbs	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215
	Kgs	45.5	47.7	50.0	52.3	54.5	56.8	59.1	61.4	63.6	65.9	68.2	70.5	72.7	75.0	77.3	79.5	81.8	84.1	86.4	88.6	90.9	93.2	95.5	97.7
Height	in/cm	Underweight				Healthy				Overweight				Obese				Extremely Obese							
5'00" - 152.4		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
5'01" - 154.9		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	36	37	38	39	40
5'02" - 157.4		18	19	20	21	22	22	23	24	25	26	27	28	29	30	31	32	33	33	34	35	36	37	38	39
5'03" - 160.0		17	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	32	32	33	34	35	36	37	38
5'04" - 162.5		17	18	18	19	20	21	22	23	24	24	25	26	27	28	29	30	31	31	32	33	34	35	36	37
5'05" - 165.1		16	17	18	19	20	20	21	22	23	24	25	25	26	27	28	29	30	30	31	32	33	34	35	35
5'06" - 167.6		16	17	17	18	19	20	21	21	22	23	24	25	25	26	27	28	29	29	30	31	32	33	34	34
5'07" - 170.1		15	16	17	18	18	19	20	21	22	22	23	24	25	25	26	27	28	29	29	30	31	32	33	33
5'08" - 172.7		15	16	16	17	18	19	19	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	32	32
5'09" - 175.2		14	15	16	17	17	18	19	20	20	21	22	22	23	24	25	25	26	27	28	28	29	30	31	31
5'10" - 177.8		14	15	15	16	17	18	18	19	20	20	21	22	22	23	24	25	25	26	27	28	28	29	30	30
5'11" - 180.3		14	14	15	16	16	17	18	18	19	20	21	31	22	23	23	24	25	25	26	27	27	28	29	30
6'00" - 182.8		13	14	14	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28	29
6'01" - 185.4		13	13	14	15	15	16	17	17	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27	28
6'02" - 187.9		12	13	14	14	15	16	16	17	18	18	19	19	20	21	21	22	23	23	24	25	25	26	27	27
6'03" - 190.5		12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	21	22	23	23	24	25	25	26	26
6'04" - 193.0		12	12	13	14	14	15	15	16	17	17	18	18	19	20	20	21	22	22	23	23	24	25	25	26



## HOW MUCH WEIGHT DO I NEED TO GAIN DURING MY PREGNANCY?

Height (Feet and inches)	Underweight (Pounds)	Normal Weight (Pounds)	Overweight (Pounds)	Obese (Pounds)
	<b>BMI &lt;19.8</b>	<b>BMI 19.8-26.0</b>	<b>BMI 26.1-29.0</b>	<b>BMI &gt; 29.0</b>
4'8"	Less than 88	88-116	117-129	130 or higher
4'9"	Less than 92	92-121	122-134	135 or higher
4'10"	Less than 95	95-124	125-138	139 or higher
4'11"	Less than 98	98-128	129-143	144 or higher
5'0"	Less than 101	101-133	134-148	149 or higher
5'1"	Less than 105	105-137	138-153	154 or higher
5'2"	Less than 108	108-142	143-158	159 or higher
5'3"	Less than 112	112-146	147-163	164 or higher
5'4"	Less than 115	115-151	152-169	170 or higher
5'5"	Less than 119	119-156	157-174	175 or higher
5'6"	Less than 123	123-161	162-179	180 or higher
5'7"	Less than 126	126-166	167-185	186 or higher
5'8"	Less than 130	130-171	172-190	191 or higher
5'9"	Less than 134	134-176	177-196	197 or higher
5'10"	Less than 138	138-181	182-202	203 or higher
5'11"	Less than 142	142-186	187-208	209 or higher
6'0"	Less than 146	146-191	192-213	214 or higher
6'1"	Less than 150	150-197	198-219	220 or higher
6'2"	Less than 154	154-202	203-225	226 or higher
6'3"	Less than 159	159-208	209-232	233 or higher
6'4"	Less than 163	163-213	214-238	239 or higher
<b>Recommended weight gain</b>	<b>For the health of your baby, it is best to gain 28-40 pounds</b>	<b>For the health of your baby, it is best to gain 25-35 pounds</b>	<b>For the health of your baby, it is best to gain 15-25 pounds</b>	<b>For the health of your baby, it is best to gain 15 pounds.</b>
<b>For twins =</b>	<b>35-45 pounds</b>		<b>Triplets =</b>	<b>Aim for 50 pounds</b>

Adapted from "A Healthy Baby is Worth the Weight" sponsored by the Colorado Department of Health

**Your chances of having a healthy weight baby (greater than 5 pounds 8 ounces) is better when you gain enough weight.**

# Listeriosis

## PROTECT YOUR BABY AND YOURSELF FROM LISTERIOSIS

Pregnant women are at higher risk for becoming ill from *Listeria*, a harmful bacterium found in contaminated foods. Although very rare, *Listeria* can lead to a disease called Listeriosis. Listeriosis can cause miscarriage, premature delivery, serious sickness, or stillbirth. If you are pregnant, you need to know what foods are safe to eat.

### Prevention is the key:

1. **CLEAN:** Wash hands often with soap and warm water. Use clean dishes, spoons, knives, and forks. Wash countertops with hot soapy water and clean up spills right away.
- **SEPARATE:** Keep raw meat, fish, and poultry away from other foods that will not be cooked.
  - **COOK:** Cook food to a safe minimum internal temperature. Check with a food thermometer. Cook ground beef to 160 degrees Fahrenheit, pork to 160 Degrees Fahrenheit, and poultry to 165 degrees Fahrenheit.
  - **CHILL:** Refrigerate or freeze within 2 hours- refrigerate or freeze within 1 hour in hot weather (above 90 degrees Fahrenheit). Don't leave meat, fish, poultry, or cooked food sitting out.

### What can I do to keep my food safe?

*Listeria* can grow in the refrigerator. The refrigerator should be 40 degrees Fahrenheit or lower, and the freezer 0 degrees Fahrenheit or lower. Use a refrigerator thermometer to check your refrigerator's inside temperature.

- Clean up all spills in your refrigerator right away- especially juices from hot dog packages or raw meat, or poultry.
- Clean the inside walls and shelves of your refrigerator with hot water and liquid soap, then rinse.
- Use precooked or ready-to-eat food as soon as you can. Don't store it in the refrigerator too long.
- Wash your hands after you touch hot dogs, raw meat, chicken, turkey, or seafood, or their juices.

### Foods to Avoid:

**Do not eat** hot dogs, lunch meats, bologna, or other deli meats **unless** they are reheated until steaming hot.

**Do not eat** refrigerated pate, meat spreads from a meat counter, or smoked seafood found in the refrigerated section of the store. Foods that don't need refrigeration, like canned tuna and salmon, are okay to eat. Refrigerate after opening.

**Do not drink** raw (unpasteurized) milk and do not eat foods that have unpasteurized milk in them.

**Do not eat** premade salads made in store- such as ham salad, chicken salad, egg salad, and tuna or seafood salad.

**Do not eat** soft cheeses such as feta, queso blanco, queso fresco, Brie, Camembert, blue-veined cheeses, and Panela **unless** it is labeled as made with pasteurized milk. Make sure the label says, “MADE WITH PASTEURIZED MILK”.

**For more information about food safety:**

U.S Dept. of Agriculture

Food safety and inspection service- [www.fsis.usda.gov](http://www.fsis.usda.gov)

USDA Meat and Poultry Hotline- 1-888-MPHotline (toll-free) or 1-888-674-6854, TTY: 1-800-256-7072

## **Mercury in Fish and Shellfish**

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children’s proper growth and development. Women and children in particular should include fish or shellfish in their diets due to the many nutritional benefits.

Nearly all fish and shellfish contain traces of mercury. For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or your child’s developing nervous system. The risks from mercury in fish and shellfish depend on the type of fish and amount consumed. Therefore, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish, and only eat fish and shellfish that are lower in mercury.

By following these recommendations for selecting and eating fish or shellfish, women and children will receive the benefits and be confident that they have reduced their exposure to the harmful effects of mercury.

### **DO NOT EAT:**

- Shark, Swordfish, King Mackerel, Tuna steaks or Tilefish - **All contain high levels of Mercury!**

### **YOU CAN EAT:**

- Up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in Mercury.
- Five of the most common are: Shrimp, Canned light tuna, Salmon, Pollock, and Catfish.
- Another commonly eaten fish, albacore (white) tuna has more mercury than canned light tuna. You may eat up to 6 oz. (1 average meal) of albacore tuna per week.

### **CHECK ADVISORIES:**

- Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas
- If no advice is available, eat up to 6 oz. per week of fish you catch from local waters, but don’t consume any other fish during that week.

- Follow these same recommendations when feeding fish and shellfish to your young child, but serve smaller portions.

Visit the Food and Drug Administration’s Food Safety website [www.cfsan.fda.gov](http://www.cfsan.fda.gov) or the Environmental Protection Agency’s Fish Advisory website [www.epa.gov/ost/fish](http://www.epa.gov/ost/fish) for a listing of mercury levels in fish.

## Herbs

### Herbs to be used with caution during pregnancy:

Angelica	Dong Quai	Feverfew
Licorice	Motherwort	

### Herbs NOT to be used during pregnancy in medicinal quantities:

Andrographis	Arnica	Barberry
Beth Root	Black Cohash***	Blue Cohash***
Blue Vervain***	Buchu	Calamus
Celedine	Ligusticum Wallichii	Comfrey
Chinese Coptis	Corydalis Yanhusuo	Cotton Root
Devil’s Claw	Golden Seal	Jamaican Dogwood
Juniper Berry	Life Root (Senecio)	Lomatium
Ephedra	Mugwort	Oregon Grape
Osha	Parsley oil or seeds	Pennyroyal
Periwinkle	Petasites	Pleaurisy root
Poke	Quassia	Rue
Spikenard***	Tansy	Thuja
Tienchi Ginseng	Uva-Ursi	Chinese Peony
Wild Carrot Seed	Wild Ginger	Wormwood
Yellow Root		

\*\*\*Under Physician’s recommendation, may be used during the last 2 weeks of pregnancy

**Laxative to avoid during pregnancy:** Cascara Sagrada, Rhubarb or Senna can be irritating to the uterus as well as the colon.

**Herbs with potential for serious toxicity:** Mayapple, Bloodroot, Lobelia, Mistletoe, Pulsatilla, Wormwood, and Pink Root

### Herbs NOT to be used while breastfeeding:

Aloe- when used orally	Borage	Comfrey Root
Ephedra	Life Root	Mayapple
Petasites	Poke	Pulsatilla
Rhubarb	Wild Ginger	Sage ^^^

(It is safe to drink **ginger tea** to help with some morning sickness)

## Morning Sickness

Nausea and vomiting often times occur in the early months of pregnancy. Although it is frequently referred to as “morning sickness”, it can occur at any time of the day or night. Usually it stops after about the third month. Morning sickness is the result of the influence of increased amounts of estrogen and progesterone that are produced by the ovaries early in pregnancy. Because of the increasing levels of these hormones, the secretory cells in the stomach increase their production of gastric juices. At the same time, the bowel slows down its ability to empty the contents of the stomach. This is what causes a feeling of nausea and in some cases, vomiting.

To help alleviate morning sickness, try the following suggestions until you find the one that works for you:

- Have some yogurt, cottage cheese, juice, or milk before you go to bed. Or try one of these if you have to get up during the night.
- Eat a piece of bread or a few crackers before you get out of bed in the morning, or when you feel nauseated. Keep them close to your bedside.
- Get out of bed slowly. Avoid sudden movements.
- Eat several small meals during the day so your stomach doesn't remain empty for very long.
- Eat high protein foods (eggs, cheese, nuts, and meats) as well as fruits and fruit juices. These foods help prevent low levels of sugar in your blood, which can also cause nausea.
- Drink soups and other liquids between meals instead of with meals.
- Avoid greasy fried foods which are hard to digest.
- Avoid spicy and heavily seasoned foods.
- Ginger drops/candies and sipping ginger tea may help.
- Try sour foods such as lemon drops, lemonade, squeezing lemon into water, eating granny smith apples.
- Sip soda water (carbonated water) when you begin to feel nauseated.
- Get fresh air by taking a walk, sleeping with the windows open, and use an exhaust fan or open a window when you cook.
- Take deep breaths.
- Drink spearmint or peppermint tea.
- Try motion sickness “sea bands”.
- Acupuncture
- When the above suggestions are not helping enough, there is a protocol using Vitamin B6 and Doxylamine (active ingredient in Unisom). Research has shown that the combination of these two medications results in a decrease in nausea and vomiting in pregnancy. If you would like more information on dosages, etc. please call the triage department. There is also a medication called Diclegis, which is a combination of the above two ingredients in an extended release tablet.

**\*\*If vomiting persists or it becomes difficult to retain food or liquids, you should call the office and speak with the triage department.\*\***

## **Toxoplasmosis in Pregnancy**

### **What is it?**

- 0. Toxoplasmosis is a parasitic disease caused by exposure to toxoplasma gondii (T. gondii) parasite.
  - This parasite is found in cats, other animals, and people.
  - Swallowing anything infected with the parasite can cause Toxoplasmosis.

### **How do you get Toxoplasmosis?**

Maternal toxoplasmosis infection is acquired orally. The T. gondii parasite is spread through:

- 0. Contaminated water, soil, and cat litter
  - Eating raw or undercooked contaminated meat, poultry, eggs or shellfish
  - Eating soil- contaminated fruits and vegetables.

### **The link with cats:**

- 0. Kittens excrete large numbers of microscopic eggs of the T. gondii parasite in their feces
  - Eggs become infectious after 2 or 3 days
  - Eggs stay in the soil for long periods (months or even years) and are picked up by people handling dirt or vegetables.
  - Most infected cats excrete the eggs for only a few weeks before developing an immunity, which then lasts for several years.
  - Nearly all cats will have been infected at some stage, but few remain actively infected. It is unlikely that you will catch toxoplasmosis from an adult cat.
  - It is possible however, to get the infection from the soil in your garden

### **Symptoms:**

- Adults often show no symptoms, or may just suffer from fatigue, swollen glands, fever, headache, and muscle weakness.
- There are some simple steps you can take to prevent becoming infected.

### **Precautions:**

- Always wash your hands after handling raw meat (or wear gloves).
- Eat only well-cooked meat, poultry, and eggs.
- Avoid cold-smoked or cured meats, such as ham or salami (they can be eaten if served piping hot).
- Keep kitchen work surfaces and utensils clean. Cutting boards, knives, counters, and the sink should be washed after food preparation.
- Wash hands carefully after gardening or touching soil.
- Wash fruit and vegetables before eating.
- Avoid getting a kitten, or having close contact with kittens if you are pregnant.
- If you have cats or kittens, have someone else empty the litter box/pick up feces on a daily basis.
- Cover children's sandpits to keep animals out.
- If traveling to less developed countries, especially in South America, drink only filtered water.

Hand washing is the single most important measure to reduce transmission of Toxoplasmosis. If you are concerned that you may have toxoplasmosis, discuss this with your provider. Blood tests can be carried out to check whether you have the infection.

## **Travel During Pregnancy**

### **Best time to travel:**

- The best time to travel is the middle of your pregnancy, between weeks 14 and 28.
- The most common pregnancy emergencies occur in the first and third trimester.
- After 28 weeks, it may be harder for you to move around or sit for long periods of time.
- Mid-pregnancy, energy has returned, morning sickness is gone, and you are still mobile.
- It is not recommended to travel outside the area after 35 weeks.

### **Seat Belts:**

- Always wear both the lap and the shoulder belt.
- Buckle the lap belt low on your hip bones, below your belly.
- Place the shoulder belt off to the side of your belly, and across the center of your chest (between your breasts).
- Never place the shoulder belt under your arm.
- Make sure the belt fits snugly.
- The upper part of the belt should cross your shoulders without rubbing against your neck.

### **Traveling by Car:**

- Be sure to wear your seatbelt every time you ride in a motor vehicle.
- If you are involved in a crash (even a minor one), contact your health care provider right away.
- If traveling a great distance, try to limit driving to no more than 5-6 hours each day. Plan to make frequent stops, to move around and stretch your legs.

### **Traveling by Airplane:**

- Air travel is almost always safe for a healthy, pregnant women.
- If you have a medical condition that could be made worse by flying, do not fly.
- Some domestic airlines may require a medical certificate for you to fly later in pregnancy. Check with your airline to see if they have any travel restrictions during pregnancy. International airlines may have an earlier cutoff.
- Avoid gas-producing foods and carbonated drinks before your flight. Gas expands in low air pressure in airplane cabins and can cause discomfort.
- When traveling by air, to make your trip as comfortable as possible:
  1. Book an aisle seat so you can get up and stretch your legs
  2. Wear your seat belt at all times, secure your seat belt below your belly
  3. If you have nausea, check with your health care provider regarding anti-nausea medications

### **Traveling by Ship:**

- Taking a cruise can be fun, but many travelers on cruise ships have the unpleasant symptoms of seasickness, also called motion sickness.
- If you have never taken a cruise, planning your first one while you are pregnant may not be a good idea.
- If seasickness is not a problem for you, traveling by sea during your pregnancy may not upset your stomach.

- Make sure a Doctor or nurse is on board the ship, and that your scheduled stops are in places with modern medical facilities in case there is an emergency.

#### **Traveling outside of the United States:**

- Traveling to other countries means you may be exposed to other kinds of germs. People who live in the country are used to the organisms in the food and water, but a traveler is not. These organisms can make a traveler very ill.
- The safest water to drink is tap water that has been boiled for at least a minute. Bottled water is safer than unboiled tap water, but because there are no standards for bottled water, there is no guarantee that it is free of germs that can cause illness.
- Do not use ice made from non-boiled water.
- Do not eat raw or undercooked meat or fish.
- The International Associate for Medical Assistance to Travelers (IAMAT) has a worldwide directory of Doctors. Call (76)754-4883 for a free directory.
- You may want to register with the American Embassy, or consulate at your destination. These agencies are helpful if you need to leave the country because of an emergency.

#### **General Information for the pregnant traveler:**

- Have a prenatal checkup before you leave.
- Take a copy of your health record and your insurance card with you.
- Consider travel insurance.
- Wear comfortable clothing and shoes.
- Know where the nearest hospital or clinic is at your destination.
- Drink plenty of fluids, choose water over soft drinks.
- Eat regular meals on a regular basis.
- Constipation is a common travel problem, so make sure you eat lots of fiber.

Research has shown that any mode of travel lasting 4 or more hours doubles the risk of developing a condition called **Deep Vein Thrombosis (DVT)** which is a blood clot that forms in the veins of the legs or other areas of the body. A DVT can lead to a dangerous condition called **Pulmonary Embolism** in which a blood clot travels to the lungs. Pregnant women have an increased risk of developing a DVT.

Reduce your risk of DVT by:

1. Drinking plenty of water
2. Wearing loose fitting clothing
3. Walking every 1-2 hours
4. Calf stretches such as toe flexing and calf rises (rising up on the ball of your feet with the heels off the ground- can be done while sitting or standing)



## Genetic Testing

Maitri believes that pursuing genetic testing is a personal decision, and we strive to help women/couples determine the best approach to these testing options.

We recognize that what is an obvious choice for one woman on whether to screen, or how to screen, may be just the opposite answer for another woman. We respect whatever decisions are made with regards to genetic testing.

We are happy to assist you in deciding what the best approach is for you. Below is a list of the services and tests available. You may want to check with your insurance company regarding coverage before you decide on which test to pursue.

### Things to consider when deciding on genetic testing:

- Is this information I want? Some women do not wish to know in advance if their fetus/child has a genetic disorder.
- What will I do with this information? Some women feel strongly that they would terminate a pregnancy that was found to have a genetic problem, while other women may just want to prepare ahead of time for having a child with a certain condition. Keep in mind that there are no “in utero” cures for these conditions.
- Do I want to pursue invasive (definitive testing) or am I comfortable with a screening (risk assessment test)?
- Does my insurance cover these tests? Which ones does it cover?
- Based on my age, family, and personal history, how much risk do I have of having a baby with a genetic disorder?

### What is Down syndrome?

Also called Trisomy 21, Down syndrome is a genetic disorder caused when an abnormal cell division results in extra genetic material from chromosome 21. This genetic disorder, which varies in severity, causes lifelong intellectual disability and developmental delays, and in some people can cause health problems. It is the most common genetic chromosomal disorder.

### Frequency of Down syndrome per Maternal Age

Age (years)	Frequency of Fetuses with Down Syndrome to Normal Fetuses at 16 weeks of pregnancy	Frequency of Live Births of Babies with Down Syndrome to Normal Births
15-19	---	1/1250
20-24	---	1/1400
25-29	---	1/1100
30-31	---	1/900
32	---	1/750

33	1/420	1/625
34	1/325	1/500
35	1/250	1/350
36	1/200	1/275
37	1/150	1/225
38	1/120	1/175
39	1/100	1/140
40	1/75	1/100
41	1/60	1/85
42	1/45	1/65
43	1/35	1/50
44	1/30	1/40
45 and older	1/20	1/25

The numbers are approximated and rounded. Using this data, geneticists have set the number separating low-risk from high-risk at 1/250. Why is there a difference in frequencies between 16 weeks and time of birth? Because the spontaneous miscarriages of pregnancies with Down syndrome between these times.

### **What is Trisomy 18?**

Also called Edwards syndrome, Trisomy 18 is a chromosomal condition which results from an extra copy of chromosome 18. It is associated with abnormalities in many parts of the body and intellectual disability. Due to the presence of several life-threatening medical problems, many individuals with trisomy 18 die before birth or within their first month. Trisomy 18 occurs in about 1 in 5,000 live-born infants.

### **What is Trisomy 13?**

Also called Patau syndrome, Trisomy 13 is a chromosomal disorder which results from an extra copy of chromosome 13. It is associated with severe intellectual disability and physical abnormalities in many parts of the body. Due to the presence of several life-threatening medical problems, many infants with Trisomy 13 die within their first days or weeks of life. 5 to 10 percent of children with this condition live past their first year. Trisomy 13 occurs in about 1 in 16,000 newborns.

## Genetic Testing Overview

**Screening tests** - Non diagnostic meaning not a “yes” or “no” answer, but a risk assessment (for example a 1 in 1000 chance):

- Integrated screen
- Cell Free DNA
- Ultrascreen
- Modified Sequential Screen
- Quad Screen
- Detailed Fetal Anatomy Screen- Ultrasound examination

**Diagnostic tests** - these tests give a definitive result- “yes” or “no” if the baby has a major chromosomal problem:

- CVS- chorionic villi sampling
- Amniocentesis

**Prior to pregnancy or anytime during pregnancy**

- Genetic counseling
- Cystic Fibrosis Carrier testing
- SMA Carrier testing
- Fragile X Carrier testing
- Ashkenazi Jewish Carrier Testing

## Financial information on Genetic Testing

Health insurance coverage for genetic testing varies from plan to plan, company to company, and state to state. With this in mind, each patient is responsible for researching their own plan coverage with regards to genetic testing by calling the insurer, benefits representative, or both. Our medical team will not be able to answer questions regarding the expected cost that will be billed to you.

## Test Codes

**Ultrascreen:** 76813- US, 36416- finger prick, 84704, 84163

**Integrated Screen:** 76813- US, 82105, 82677, 84163, 84704, 86336

**Modified Sequential Screen:** 76813- US, 36416- finger prick, 84704, 84163, 82105, 82677, 86336

**Quad Screen:** 82105, 82677, 84702, 86336

**Genetic Counseling:** 99243

**Amniocentesis:** 59000, 76946

**CVS:** 59015, 76945

**AFP:** (alpha fetoprotein) 82105 (approximately \$150)

**Cell Free DNA (Invitae NIPS):** 81420

## **Genetic Counseling**

Not sure which test is best for you? Concerned about your test results? A genetic counselor is available to discuss testing options and/or the results from any prenatal testing with you and your partner or family. As part of the counseling, a detailed family history is obtained in order to determine if there are any other tests that might specifically apply to you, your partner, or fetus. Genetic counselors have specialized training in genetics and counseling. Genetic counseling is recommended to discuss any abnormal prenatal screening or diagnostic test results. Genetic counselors are there to help you decide on the best testing options for you, your baby's diagnosis, and to discuss with you the variety of options available if abnormal testing occurs.

They can help you understand choices regarding:

- continuation of the pregnancy and making arrangements for appropriate medical services at and after delivery
- termination of pregnancy

Genetic counselors are also available for the following examples:

- Couples with questions or concerns about carrier screening for genetic conditions more commonly seen in ethnic groups. For example: Tay-Sachs disease, Thalassemia, Sickle Cell Anemia, and Cystic Fibrosis
- Concerns about exposure to radiation, medications, chemicals, infections, or drugs during pregnancy.
- Couples in which one or both partners have a personal and/or family history of:
  - Physical differences present at birth
  - Learning problems, developmental delay, or mental retardation
  - Extreme tall or short stature
  - Hearing loss
  - Recurrent miscarriages, still births, or early infant loss
  - Chromosomal abnormality

## **Screening Tests**

These tests are a risk assessment. The results return as a probability, or chance, of your baby having a chromosomal abnormality. For example: a 1 in a 1000 chance of having a child with an open neural tube defect.

## Cell Free DNA (NIPS)

**Invitae Non-Invasive Prenatal Screening (NIPS)** analyzes whether a pregnancy is at increased risk for the chromosomal disorders listed below:

**Testing for:** Down syndrome (Trisomy 21) and Edwards syndrome (Trisomy 18) and Patau syndrome (Trisomy 13), sex chromosome abnormalities (listed below), and microdeletions

Y Analysis (which detects Gender and 47XYY Jacobs Syndrome) and/or XY Analysis (which will detect Turner Syndrome 45X, Klinefelter Syndrome 47XXY, Jacobs Syndrome 47XYY, Triple X 47XXX).

Turner Syndrome – (Monosomy X) when a female is born with instead of two X chromosomes, only one or one is altered in some way. It presents itself in short stature and infertility.

Klinefelter Syndrome – (XXY) when a male is born with an extra X chromosome. This typically causes underdeveloped testicles which may lead to a decreased production of testosterone. This may in turn cause such problems as infertility.

Triple X and XYY Syndrome – when a child is born with an extra X or Y chromosome. This increases the risk of learning disabilities and developmental delays.

Invitae NIPS tests for the following microdeletions: Prader-Willi/Angelman syndrome, 1p36 deletion, DiGeorge syndrome, Wolf-Hirschhorn syndrome, Cri-du-chat syndrome

**Microdeletion:** A microdeletion is a small, missing piece of a chromosome. While many microdeletions have little impact on a child's health or life, there are some that cause intellectual disabilities and birth defects.

**Twin pregnancy:** Invitae NIPS is unable to do microdeletions for twin pregnancies. The sex chromosome analysis for twins can tell you if you are carrying at least one male baby. However, it is unable to determine if there is more than one male or identify which twin is male.

**How it is performed:** Blood test (from a vein in your arm) after 10 weeks gestational age, analyzing cell-free DNA (cfDNA) in maternal blood.

### Detection rate:

- Downs Syndrome – >99% (false positive rate <0.1%)

### Pros:

- High detection rate and low false positive rate.
- This is a noninvasive test, and poses no threat to the fetus- there is no increased risk of pregnancy loss following this test

### Cons:

- Increasing maternal weight is associated with lower fetal fraction of cell free DNA, therefore a second blood draw may be required for women weighing over 200 pounds. Maternal weights over 220 pounds may need to wait until 12 weeks to have this blood work drawn.

- Cell Free DNA does not test for open neural tube defects. A separate blood test (AFP) is recommended (15-20 weeks) to screen for those defects.

**Approximate cost:** We will always order this test to be run through your insurance. Invitae will reach out to you via text and email with an Estimation of Benefits of what it would cost through insurance. You then have 3 days to decide if you want to go through insurance or opt for the Self Pay. The Self Pay option does not go towards your deductible. See Invitae payment options handout for more details.

## Ultrascreen

**Testing for:** Down syndrome (Trisomy 21) and Trisomy 18 and 13

### How it is performed:

- Blood test (finger prick) between, 9 weeks plus 1 day and 13 weeks plus 6 days, measuring the hormone levels PAPP-A and Beta HCG
- Ultrasound measuring the nuchal translucency (thickness of the skin on the back of the baby's neck)- done between 11 weeks and 1 day and 13 weeks and 6 days

Both parts of the test can be performed at the same time, with results coming back in 1 week. Or the blood test can be obtained a week before the ultrasound, with results returning on the day of the ultrasound.

### Detection rate:

-Down syndrome-> 85%

-Trisomy 18-> 80%

### Pros:

- This is a noninvasive test, and poses no threat to the fetus- there is no increased risk of pregnancy loss following this test

### Cons:

- It is not as accurate as the Integrated Screening test
- Ultrascreen also does not test for open neural tube defects. A separate blood test (AFP) is recommended (15-20 weeks) to screen for those defects.

**Approximate cost:** \$1,000

## Integrated Screen

**Testing for:** Down syndrome, Trisomy 18, open neural tube defects (such as Spina Bifida)

### How it is performed: 3 Required Steps-

- Ultrasound (Nuchal Translucency Measurement) between 11 weeks +3 days, and 13 weeks +6 days
- Blood test (measuring hormone PAPP-A) between 10 weeks + 3 days and 13 weeks +6 days
- Blood test (measuring hormones AFP, HCG, uE3, inhibin A) between 15 weeks and 20 weeks +6 days

### Detection rate:

-Down syndrome- 94-96%

-Trisomy 18- 90%

-Open neural tube defects: 80%

**Pros:**

- This is a non-invasive test, and poses no threat to the fetus. There is no increased risk of pregnancy loss following this test

**Cons:**

- Results are complete only after all steps of the Integrated Screen have been analyzed together (usually about a week after the second blood test).

**Approximate cost:** \$1,500

## Modified Sequential Screen

**Testing for:** Down syndrome, Trisomy 13, Trisomy 18, Open Neural Tube defect

**How it is performed:**

- Ultrasound (Nuchal Translucency Measurement) between 11 weeks +1 day and 13 weeks +6 days
- Blood Test (measuring hormone levels PAPP-A, Free Beta hCG) between 9 weeks +1 day and 13 weeks +6 days
- Blood test (measuring hormone levels AFP, Free Beta hCG, uE3, inhibin A) between 15 weeks and 20+6 weeks

Results are available approximately one week after each step. First trimester risk is provided first. If the risk is high enough, and you want to pursue diagnostic testing, you can choose to have CVS (Chorionic villi sampling) immediately, or an amniocentesis at 15 weeks. If the risk is low, indeterminate from the first part of the test, or for women who want more accurate results, the second trimester blood test is done and revised risk is provided.

**Detection rate:**

-Down Syndrome: 95% if both parts are done- 82-87% if only the first part is done

-Trisomy 18- 90%

-Neural Tube defects: 80%

**Pros:**

- First trimester risk estimate is provided, which allows for an earlier diagnostic test
- This is a noninvasive test and poses no threat to the fetus-there is no increased risk of pregnancy loss following this test.

**Cons:**

- Some women who are determined to be high risk after the first trimester screening may choose to pursue diagnostic testing, which runs a small risk of miscarriage.

**Approximate cost:** \$1,500

## Quad Marker Screening

**Testing for:** Down syndrome, Trisomy 18, and Open Neural tube defects

**How it is performed:**

- Blood draw is performed (measuring hormone levels AFP, HCG, uE3, inhibin) between 15 weeks and 20 weeks +6 days

1<sup>st</sup> version – Dpoirier 02/09/22

- Results are available approximately one week after the blood draw

**Detection rate:**

-Down syndrome: 81%

**Pros:**

- Test has only one part. It can be done at the office, no hospital visit necessary.
- This is a noninvasive test and poses no threat to the fetus- there is no increased risk of pregnancy loss following this test.

**Cons:**

- Not as accurate as other tests. Results are not available in the first trimester

**Approximate cost:** \$500

\*The American College of Obstetrics and Gynecology recommends doing dual trimester screening (screening in the first and second trimester)

## **Alfa Fetoprotein (AFP)**

**Testing for:** Risk of neural tube defect such as spina bifida or anencephaly

**How it's performed:**

- Blood draw is performed between 15 weeks and 20+6 weeks
- Results are available approximately one to two weeks after the blood draw

**Detection rate:**

- 75-90% of babies with neural tube defects are detected through the AFP screening
- Down syndrome: 85%

**Pros:**

- This is a noninvasive test and poses no threat to the fetus and there is no risk of pregnancy loss following this test.
- Test has only one part. It can be done at the office, no hospital visit necessary.

**Cons:**

- This test is a screening and is NOT diagnostic. If the test comes back positive, you would require more diagnostic testing.

**Approximate cost:** Approximately \$150

## **Detailed Fetal Anatomy Screen Ultrasound Examination**

**Testing for:** Birth defects and/or structural markers which can be related to some chromosomal abnormalities. This is performed between 18-22 weeks at UVM Medical Center.

This Ultrasound examination of the baby provides the most detailed fetal anatomic evaluation. This exam evaluates the fetal brain, spine, heart, urinary tract, lips, palate, arms and legs, and a number of other meas-



urements that can help identify babies with or without birth defects, including major and minor markers for Down Syndrome.

The Ultrasound examination is designed to detect structural abnormalities. If the ultrasound exam results are considered normal, the risk of major structural defects is reduced to about 1%. However, this test cannot rule out chromosomal abnormalities. While it is able to assist with Down syndrome risk assessment, only about ½ of fetuses with Down syndrome will exhibit a marker on a detailed ultrasound.

Since the ultrasound cannot guarantee a baby does not have Down syndrome, we recommend that women who want the most accurate Down syndrome risk assessment also obtain other screening from maternal blood samples. For women who wish to know with complete certainty, only a diagnostic test (CVS or amniocentesis) can provide that assurance.

**Pros:**

- This is a noninvasive test and poses no threat to the fetus-there is no increased risk of pregnancy loss following this test.

**Cons:**

- Not a diagnostic test, some abnormalities develop later in pregnancy, and may be missed.
- Does not rule out chromosomal abnormalities or some birth defects.
- May identify a finding of unclear significance for the health of the baby.

**Approximate Cost:** \$1,200

**CPT code:** 76811

## **Diagnostic Testing**

These tests give a definitive answer if the baby has a major chromosomal problem.

### **CVS - Chorionic Villi Sampling**

**Testing for:** Chromosomal abnormalities including Down syndrome, Trisomy 18 and Trisomy 13. It is the earliest diagnostic test available. It identifies chromosomal abnormalities with an accuracy of 99%.

**How it's performed:**

- During this procedure, a doctor obtains a small sample of the placenta. The procedure includes passing a small tube through the vagina and cervix, into the uterus, to obtain the sample. At times, the procedure cannot be performed vaginally. Therefore, a needle would be inserted through the abdomen after a local anesthetic is administered.
- CVS is done between 12 and 14 weeks of gestation, and the final results are available in 2 weeks

**Pros:**

- This is a diagnostic test which means its accuracy is in the 99% range (definitive, "Yes" or "No" answer)
- Performed early in the pregnancy

**Cons:**

- It is an invasive test which carries a miscarriage risk of 1:150 to 1:200

- There is the possibility of obtaining an inadequate sample for testing, identifying two different cell types, and failure of the cells to grow. If two different cells are identified, amniocentesis may be recommended as an additional diagnostic procedure.
- A maternal serum AFP is suggested at approximately 16 weeks to screen for open neural tube defects as CVS does not screen for this

**Approximate cost:** \$1,500

## **Amniocentesis**

**Testing for:** Chromosomal abnormalities- including Down syndrome, Trisomy 13, Trisomy 18, and Open Neural Tube Defects

### **How it is performed:**

- Amniocentesis is a procedure in which the doctor obtains a small sample of amniotic fluid (which surrounds the developing fetus) by passing a fine needle through the abdominal wall and into the uterus. This is performed under ultrasound guidance.

### **Pros:**

- This test is the less risky of the invasive diagnostic (“Yes” or “No”) tests
- It predicts open neural tube defects with 97% sensitivity
- It predicts the major chromosomal defects, with an accuracy of 99.8%

### **Cons:**

- It is an invasive test that carries a risk of miscarriage of less than 1:500 when it is performed after 15 weeks
- There is also a small risk of fetal puncture. The procedure is performed under ultrasound guidance to lower that risk.

**Approximate Cost:** \$1,000

\*\* Even though both Amniocentesis and CVS are definitive tests, they cannot rule out micro deletions or small chromosomal problems

## **Carrier Testing**

This is performed by a blood test which can be done at any time prior to or during pregnancy. A carrier is an individual who does not develop the disease, but can pass on the gene with a mutation to his or her children.

If both parents are carriers of the same disease, there is a 1-in-4 chance, with each pregnancy, that their child will be born affected with that disease, a 2-in-4 chance that their child will be a carrier of that disease and a 1-in-4 chance that their child will be neither affected nor a carrier of that disease.

In an autosomal recessive condition (such as CF and most Jewish genetic diseases), persons who inherit only one mutated gene show no signs of disease, but persons who inherit two mutated genes will be affected by the disease.

## Cystic Fibrosis Carrier Testing

In the Caucasian population, about 1 in 2500-3000 infants are born with Cystic Fibrosis, making it one of the most common genetic diseases.

Cystic Fibrosis does not affect intelligence, but does cause many health problems. Cystic Fibrosis can affect several organs in the body including the lungs, pancreas, intestines, liver, and reproductive organs. Children with CF have a thick mucus in their lungs, which increases the risk of infections and causes damage to the lungs. Cystic Fibrosis can cause problems with digestion, and children with Cystic Fibrosis are often small for their age. Currently, the average life expectancy of someone with Cystic Fibrosis is about 30 years. Individuals born with CF today are living longer as treatments improve.

At Maitri, we offer carrier testing for cystic fibrosis which is performed by a blood test. To be at risk to have a child with cystic fibrosis, both parents must be carriers. If both parents are carriers, there is a 25% chance that they will have an affected baby. Prenatal testing for Cystic Fibrosis is available through amniocentesis or Chorionic Villus sampling. There is no “in utero” gene therapy or cure for Cystic Fibrosis.

Approximately 1 in 25 Caucasians of Northern European descent are carriers of Cystic Fibrosis, and most carriers have no symptoms. Other ethnic groups are less likely to be Cystic Fibrosis carriers. A negative family history does not rule out the possibility of Cystic Fibrosis in your baby. Direct testing of the Cystic Fibrosis gene can detect approximately 85-90% of those who carry this specific gene. Thus, while most carriers are identified, it is possible to have a negative test result and still be a carrier for cystic fibrosis.

Carrier testing may not be covered by your insurance plan. This test only needs to be performed once. You do not need to be tested with each subsequent pregnancy. This test ALWAYS needs to be prior authorized by insurance before performing. In order to expedite this process please let us know as soon as possible that you would like this test performed as the prior authorization process can be cumbersome.

**Approximate Cost: \$1540**

**CPT: 81220**

## Ashkenazi Jewish Carrier Testing

There are a number of genetic diseases for which persons of Jewish heritage (at least one grandparent) are more likely to be carriers of than the general population. These diseases are all serious and can be fatal and or life altering to children born with them.

There are different genetic concerns for people of Ashkenazi Jewish background (German, French or Eastern European), and people of Sephardic (Mediterranean) or Mizrahi (Persian/Iranian or Middle Eastern) background. The conditions for which carrier screening is offered are more common in individuals of Ashkenazi Jewish descent than other ethnic groups because of specific mutations that occurred in the “founders” of the population. Because Jewish individuals historically married within their own ethnic group, these mutations increased in frequency over generations. Regardless of specific Jewish background, all Jewish and interfaith couples may have preconception carrier screening for the Jewish genetic diseases. This typically begins with an appointment with one of the Genetic Counselors at UVM Medical Center.

Screening is available for eleven genetic disorders. Carrier frequency is different for each condition – the overall chance of being a carrier for at least one of these diseases is 1 in 4 to 1 in 5 for someone of AJ descent. All of these disorders are also found in non-Jewish individuals, but with lower incidence (with the exception of CF).

As with Cystic Fibrosis testing, if one parent undergoes screening initially and all tests are negative, then no further screening or testing is needed.

**Approximate Cost:** \$800

**CPT codes:** 81220, 81200, 81251, 81242, 81209, 81255, 81260, 81330, 81290, 81250, 81205

## **Educational Resources**

### **Childbirth Education Classes**

We strongly encourage you to participate in childbirth and breastfeeding classes. Group classes, individual sessions and home study are available. Most classes include a tour of UVM Medical Center's birthing center. We encourage you to speak with individual instructors to find the best fit for you. Many insurance plans reimburse the cost of these classes. Classes can fill up early: We recommend signing up for classes by your 22<sup>nd</sup> to 24<sup>th</sup> week of pregnancy. There are many options for birthing classes in this community. Dates and times are posted on <http://easternviewvt.com/classes-and-events/>. Please see the additional insert in this folder.

Keep in mind that visual images are very powerful in pregnancy. We recommend you avoid or limit watching the birth channels, as these are not always realistic of the birth process.

Also, *What to Expect When You Are Expecting*, although popular, is **not** our favorite book. We encourage you to choose reading from the following books:

### **Pregnancy and Birth:**

- *A Wise Birth*, Penny Armstrong
- *Pregnancy, Childbirth, and the Newborn*, Simkin, Whalley and Keppeler
- *Active Birth & Water Birth*, Janet Balaskas
- *Birthing from Within*, Pam England
- *When Survivors Give Birth*, Penny Simkin and Phyllis Klaus

### **Breastfeeding Books:**

- *The Breastfeeding Café: Mothers Share the Joys, Challenges, and Secrets of Nursing* by Barbara Behrmann

### **Postpartum books:**

- *Your Amazing Newborn*, Marshall and Phyllis Klaus

### **Books for support persons:**

- *The Birth Partner* by Penny Simkin

**Websites:**

The internet is a huge information resource regarding pregnancy, birth and parenting. However, not all the information is from safe sources. We encourage you to limit your browsing to some of the below sites:

Prenatal education guide: <http://www.beginningsguides.net/timely.html>

\*Path to Parenthood is a free pregnancy guide:

[http://dcf.vermont.gov/sites/dcf/files/pdf/cdd/dev/Path-to-Parenthood\\_web\\_2008.pdf](http://dcf.vermont.gov/sites/dcf/files/pdf/cdd/dev/Path-to-Parenthood_web_2008.pdf)

Mothering Magazine: <http://www.mothering.com/>

La Leche league international <http://www.llli.org/>

La Leche League Vermont: <http://www.llleus.org/state/Vermont.html>

Information on breastfeeding, sleep and parenting <http://kellymom.com>

Information for breastfeeding, labor support, childbirth educators, doulas in Vermont

<http://www.earthysoul.com/resources.html>

United Way of Chittenden country resources: [http://209.198.98.117/index.php?page=member\\_agency\\_list](http://209.198.98.117/index.php?page=member_agency_list)

\*\*\*\*We have developed this booklet as a way of dispersing information to our clients. While we hope it's helpful, it cannot replace what we offer you in the office. Things change rapidly in the medical field and sometimes guidelines or methods of practice change. Every family has individual needs and care plans.