

Sample Topic

## Pregnancy, Normal



### *The Medical Disability Advisor: Workplace Guidelines for Disability Duration*

Fifth Edition

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Editor-in-Chief

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# Pregnancy, Normal

## Medical Codes

- **ICD-9-CM:** 650, V22, V22.0, V22.1, V22.2
- **ICD-10:** O80.0, O80.8, O80.9, Z32.1, Z33, Z34.0, Z34.8, Z34.9

## Definition

Pregnancy is the condition of having a developing embryo or fetus in the body, which occurs as a result of the union of an ovum and spermatozoon. Pregnancy can occur anytime after a female begins menstrual function (menarche) until she reaches menopause. However, most pregnancies occur between the ages of 15 and 40 years. Pregnancies before the age of 15 and after the age of 35 have an increased risk of complications.

The first indication of a pregnancy is a missed period. Laboratory tests or home test kits check for human chorionic gonadotropin (HCG), which is produced by the placenta. After confirmation of the pregnancy, the physician, with information from the mother, can determine an approximate date of birth. The length of pregnancy averages 270 days from fertilization but may be counted from the first day of menses prior to conception (approximately 284 days).

The growth and development of the fetus is affected by the mother's nutritional status, habits (diet, drug use, alcohol consumption, or cigarette smoking), medical conditions, age at time of pregnancy, and prenatal care.

## Diagnosis

**History:** Most women miss a menstrual period before they suspect pregnancy. Other early symptoms may include tender, swollen breasts; frequent urination; fatigue; nausea and vomiting; and blurred vision.

**Physical exam:** The exam may reveal enlargement of the breasts or abdomen, bluish color (cyanosis) of the vagina, and softening of the uterus and cervix. At 10 to 12 weeks, fetal heart tones can be heard.

**Tests:** Pregnancy can be confirmed through laboratory tests or home test kits that check for HCG. Other initial testing may be done to screen for problems that threaten the health of the mother and fetus, including urinalysis, complete blood count (CBC), hemoglobin and hematocrit, and screening for syphilis, rubella (German measles) antibodies, blood group and Rh type, and antibodies to blood group antigens. Individuals at risk receive a glucose tolerance test (to screen for a predisposition for diabetes), hepatitis B, toxoplasmosis, and HIV tests. Cervical cultures may be done to rule out infection.

Ultrasound is performed to answer specific questions. It reveals the age of the baby, abnormal physical development, location of the placenta (to make sure it is in the right place), and possible

complications. Few studies have been able to prove that ultrasound is absolutely necessary, but it has produced two positive results: fewer pregnancies go past their due dates, and women carrying fetuses with anomalies can make decisions about termination earlier in the pregnancy. Ultrasound can be done at any time, but it is most useful during the second trimester, between weeks 18 and 20; the second ultrasound can be done at 23 to 28 weeks.

Although not required, a maternal serum alpha-fetoprotein test (AFP test) is recommended. Usually performed 15 to 20 weeks after the last menstrual period, the test measures how much AFP is in the mother's blood. AFP is a protein made by the baby's liver, a small amount of which enters the mother's blood. If the baby's spinal cord has not developed correctly, however, more AFP may leak into the mother's bloodstream. At 15 to 20 weeks, a triple screen of AFP, HCG, and estriol can be done.

Amniocentesis is a procedure used to evaluate conditions such as elevated AFP, advanced maternal age, or possible genetic abnormalities. It is usually performed 15 to 20 weeks after the last menstrual period but can be performed earlier. The test analyzes cells in the amniotic fluid to identify three types of problems — chromosomal problems (e.g., Down syndrome), problems within the genes (e.g., a genetic disease like cystic fibrosis), or an abnormally high level of AFP in the amniotic fluid (e.g., spina bifida, anencephaly, or other spinal abnormalities) — or to determine if the baby's lungs are mature enough to survive outside the uterus.

Chorionic villus sampling may be used instead of amniocentesis unless a test specifically requires amniotic fluid. Also used to diagnose disorders in the fetus, chorionic villus sampling has the advantage of producing results much earlier in the pregnancy (10-12 weeks) than amniocentesis. Both tests carry a risk of miscarriage.

There is another, very recently developed blood test called the ultrascreen, which picks up 68% of cases of trisomy 21 and 90% of cases of Edwards syndrome (trisomy 18); when performed with ultrasound, it can detect 97% of cases of Edwards syndrome and 91% of cases of trisomy 21 (Trupin).

If the mother is black, a test for sickle cell anemia may be ordered. Jewish mothers of eastern European ancestry (Ashkenazi) and French Canadians should be tested for the Tay-Sachs gene. Mothers are also tested for phenylketonuria (PKU) and CF.

## Treatment

Regular prenatal visits to a physician or maternity clinic are essential for a healthy, safe pregnancy, delivery, and postpartum period.

For an uncomplicated pregnancy, visits are usually scheduled every 4 weeks during the first and second trimester and every 2 weeks during the third trimester. At week 36, visits should be increased to weekly until delivery. A mother who goes past her due date needs to be seen 2 to 3 times a week.

At each prenatal visit, blood pressure, weight, fundal height, and fetal heart rate will be measured and recorded. Urine is tested for abnormal amounts of glucose and albumin (urinalysis).

Each individual should receive counseling or information regarding proper nutrition, exercise, sexual activity, work activity, the use of tobacco, and alcohol and drug restrictions. Prenatal vitamins are usually prescribed. Childbirth classes, breastfeeding instruction, and family planning should be offered.

### Prognosis

The large majority of individuals will deliver a healthy child and proceed to a complete recovery.

### Differential Diagnoses

- Cervical lesions
- Myomas
- Ovarian tumors

### Specialists

- Family Practice Physician
- Gynecologist
- Obstetrician / Gynecologist

### Rehabilitation

During pregnancy, women can continue to exercise and derive health benefits from mild to moderate exercise routines. Regular exercise is preferable to intermittent activity. Exercise during and after pregnancy has many benefits: it reduces stress, moderates weight gain, helps the body adjust to postural changes, prevents low back strain, helps to maintain the woman's pre-pregnancy fitness level, and helps the body to return to pre-pregnant state more quickly.

Rehabilitation or exercise during pregnancy can be initiated as long as there are not any contraindications, such as pregnancy-induced hypertension, preterm rupture of membrane, preterm labor during the prior of current pregnancy, incompetent cervix, persistent second- to third-trimester bleeding, and/or intrauterine growth retardation.

Although exercise during pregnancy is relatively safe, there are things that need to be avoided or at least modified. A pregnant woman should avoid holding her breath during exercise (Valsalva maneuver) because it restricts oxygen to the placenta. Exercising while lying on the back (supine position) after the first trimester is not recommended because it decreases the cardiac output to the fetus. Excessive stretching should be avoided as the already present looseness in the joints may increase susceptibility to injury. Activities such as skiing or horseback riding, in which loss of balance could be detrimental to maternal or fetal well-being, should be avoided as well.

In any workout, the woman should pay special attention to strengthening the lower back and pelvic floor muscles (Kegel exercises). In addition to strength training, a cardiovascular workout of either walking or riding a bicycle is also recommended. If a specific exercise causes pain or discomfort, it should be discontinued and alternative exercise should be used. According to the American College of Obstetrics and Gynecology (ACOG), how much a pregnant woman can exert herself during exercise should be measured by perceived exertion — she can push herself as much or as little as she is comfortable.

### Comorbid Conditions

- Acute fatty liver
- AIDS
- Anemia
- Asthma
- Cardiovascular disease
- Deep vein thrombosis
- Diabetes mellitus
- Herpes
- High blood pressure
- Infection
- Lupus
- Thyroid problems
- Tuberculosis
- Urinary tract infection

### Complications

Complications from pregnancy range from minor to life-threatening. They include excessive nausea and vomiting (hyperemesis gravidarum), pre-eclampsia, eclampsia, constipation, varicose veins, tumors of the uterus (gestational trophoblastic diseases such as hydatidiform mole and choriocarcinoma), third trimester bleeding, placenta previa, Rh sensitization, and premature labor.

HELLP syndrome is a severe type of pre-eclampsia. Its name comes from symptoms associated with the condition: hemolysis, elevated liver enzymes, and low platelets. If an individual has HELLP, immediate delivery is recommended.

Although asymptomatic, Group B Strep (GBS) bacteria are in the vagina of up to 20% to 25% of females; in 1 to 2 babies out of every 1,000, however, it can develop into an active infection (Duff 1313). If there are signs of infection, including a fever and bad-smelling amniotic fluid, the baby and mother will be tested. Antibiotics given before birth have a good chance of preventing infection in the baby. Infection can be very dangerous to the baby. If an infected baby gets sick just after birth, 5% to 10% die (Duff 1313). If the infected baby gets sick a week or later after birth, pneumonia or meningitis may develop.

### Factors Influencing Duration

Factors influencing length of disability include mother's age at delivery, pre-existing conditions, and the presence of complications during delivery.

### Length of Disability

Duration reflects accepted standard postdelivery recovery period, not medical recovery.

Normal vaginal delivery.

DURATION IN DAYS			
Job Classification	Minimum	Optimum	Maximum
Any Work	28	42	42

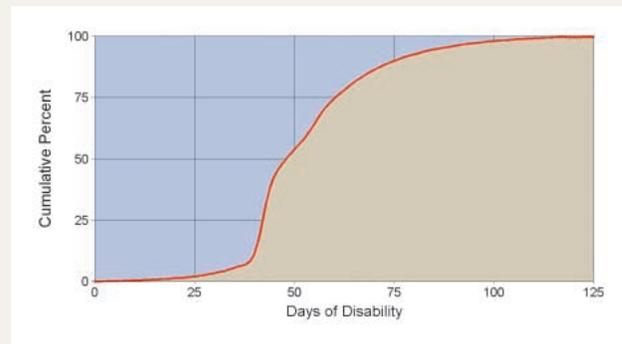
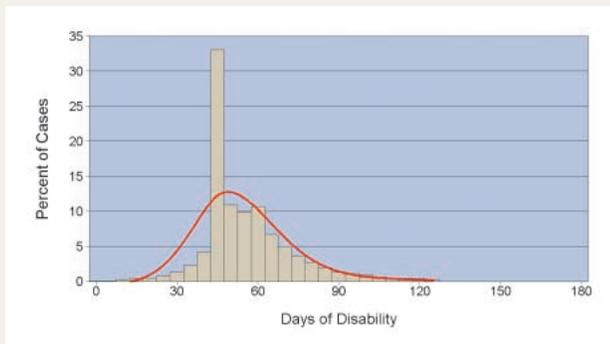
### Return to Work

Exposure to toxic substances in the workplace needs to be avoided because of the potential harm to the fetus. If complications occur, transfer to a sedentary job, elimination of strenuous work (especially heavy lifting), elevation of legs during the day, shortened work hours, and extended leave may be required. Return to work may be delayed if very heavy physical work is required.

## Reference Data

### DURATION TRENDS - ICD-9-CM: 650

Cases	Mean	Min	Max	No Lost Time	Over 6 Months	Percentile:	5th	25th	Median	75th	95th
51925	53	0	123	0%	0%	Days:	34	43	49	61	87



Note: Differences may exist between the duration tables and the reference graphs. Duration tables provide expected recovery periods based on the type of work performed by the individual. The reference graphs reflect the actual experience of many individuals across the spectrum of physical conditions, in a variety of industries, and with varying levels of case management. Selected graphs combine multiple codes based on similar means and medians.

## Failure to Recover

### Regarding diagnosis:

- What is the mother's age?
- Does individual report tender, swollen breasts; frequent urination; fatigue; nausea and vomiting; or blurred vision?
- Does physical exam reveal enlargement of breasts or abdomen, cyanosis of the vagina, and softening of the uterus and cervix?
- Are fetal heart tones heard?
- Has individual had a pregnancy test?
- Has individual had a urinalysis, CBC, syphilis screening, rubella antibodies, blood group and Rh type, and screening for antibodies to blood group antigens?
- Has individual had a glucose tolerance test, hepatitis B, and HIV tests?
- Has individual had a cervical culture? AFP? Amniocentesis? Chorionic villus sampling? Ultrasound? Sickle cell anemia tests? Tay-Sachs gene test?
- Have conditions with similar symptoms been ruled out?

## Failure to Recover - continued

### Regarding treatment:

- Does the woman see her physician regularly?
- Is the mother taking pre-natal vitamins?

- Has the mother received the appropriate pre-natal teaching? Has she incorporated it into her daily routine?

### Regarding prognosis:

- Is the mother exercising as directed by her physician?
- Is individual's employer able to accommodate any necessary restrictions?
- Does the mother have any conditions that may affect her ability to recover?
- Has individual had any complications such as hyperemesis gravidarum, pre-eclampsia, eclampsia, constipation, various varicose veins, tumors of the uterus, third trimester bleeding, placenta previa, Rh sensitization, premature labor or HELLP Syndrome?
- Did the mother have a cesarean section?
- Does the mother have postpartum depression?

## Cited References

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