The FDA has a categorization of drug risks to the fetus that runs from:
"Category A" (safest) to "Category X" (known danger—do not use!)

**Category A**
Controlled studies in women fail to demonstrate a risk to the fetus in the first trimester (and there is no evidence of a risk in later trimesters), and the possibility of fetal harm appears remote.

**Category B**
Either animal-reproduction studies have not demonstrated a fetal risk but there are no controlled studies in pregnant women, or animal-reproduction studies have shown an adverse effect (other than a decrease in fertility) that was not confirmed in controlled studies in women in the first trimester (and there is no evidence of a risk in later trimesters).

**Category C**
Either studies in animals have revealed adverse effects on the fetus (teratogenic or embryocidal or other) and there are no controlled studies in women, or studies in women and animals are not available. Drugs should be given only if the potential benefit justifies the potential risk to the fetus.

**Category D**
There is positive evidence of human fetal risk, but the benefits from use in pregnant women may be acceptable despite the risk (e.g., if the drug is needed in a life-threatening situation or for a serious disease for which safer drugs cannot be used or are ineffective).

**Category X**
Studies in animals or human beings have demonstrated fetal abnormalities; or there is evidence of fetal risk based on human experience or both, and the risk of the use of the drug in pregnant women clearly outweighs any possible benefit. The drug is contraindicated in women who are or may become pregnant.
Case 1

- A 34 year old primigravid woman experienced increasing thirst and polyuria and fatigue from 32 weeks gestation. Pregnancy had been otherwise uncomplicated to that time.
- By the 35th week of gestation she could no longer tolerate the oral intake of fluid required to match her thirst.
- Serum sodium 144 mmol/l
- Plasma osmolality 300; urine osmolality 96
- Plasma glucose 86 mg/dL
- 24h urine output 17.6 liters
- 24h fluid intake 15.3 liters

Case 1: Which statement is false?

A. Appropriate investigations include ultrasound of the liver and measurement of transaminases

B. Treatment with DDAVP is felt to represent no risk to the fetus

C. Tests of anterior pituitary function may be in the normal ranges for pregnancy

D. DDAVP is unlikely to be useful because of greatly increased levels of vasopressinase seen in the second half of pregnancy

E. Pituitary MRI is likely to show enlargement of the gland
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A. Appropriate investigations include ultrasound of the liver and measurement of transaminases
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E. Pituitary MRI is likely to show enlargement of the gland

Transient DI in pregnancy: key points

- In pregnancy the osmostat is lowered, by about 10 mOsm/kg, so thirst and release of AVP occurs at lower levels of plasma osmolality in pregnant women than non-pregnant
- This may be related to high levels of hCG
- Levels of vasopressinase increase 1000 fold between the 4th and 38th weeks of gestation
- Pre-existing central DI may worsen because of increased clearance of vasopressin
Transient DI in pregnancy: key points

- DDAVP is resistant to vasopressinase
- Transient DI may complicate acute fatty liver of pregnancy, perhaps because of decreased clearance of vasopressinase
- DDAVP has not been shown to be harmful to the fetus and minimal transfer into milk occurs
- Transient DI of pregnancy usually resolves post-partum

Kalelioglu I, Pituitary 2007;10(1):87-93

Case 2

- A 23 year old woman has tested positive for pregnancy after 6 weeks amenorrhea. At her first prenatal visit 3 weeks later her only complaints are nausea and having vomited a couple of times in the previous week.

Examination:

- Appears anxious
- Weight 126 lb, height 5’ 3”
- Heart rate 104/min regular, BP 102/66
- Thyroid is palpable, minimally enlarged diffusely, no bruit
- Extremities are warm, no tremor

- No family history of thyroid disease

Labs:

- Serum TSH: < 0.05 mU/L
- Total T4: 14.1 mcg/dL (non-pregnant range 4.5 to 11.0)
- Free T4: 1.57 ng/dL (0.80 to 1.80)
Case 2: What is the most appropriate course of action?

A. Treat with a beta blocker

B. No treatment – repeat tests in 4-6 weeks

C. Order a radioactive iodine scan and uptake since the fetal hypothalamic-pituitary-thyroid axis is not functional till about 12 weeks of gestation

D. Treat with propylthiouracil

E. Treat with methimazole
Thyroid function in early pregnancy: two major influences

- Increased serum TBG
  - Twofold rise
  - Estrogen: stimulation of liver sialylation of TBG
  - Total T4, T3 become elevated

- Stimulation of TSH receptor by hCG
  - HCG: increases after fertilization, peaks 10-12 weeks, weak thyroid stimulator
  - Free T4, T3 rise in normal range


Transient subclinical hyperthyroidism in early pregnancy

- Affects 10-20% of normal pregnancies
- Hyperemesis may be associated with clinically mild hyperthyroidism
- Neither usually needs treatment
- Mutant TSH receptor (rare) causes recurrent gestational hyperthyroidism even with physiological hCG levels

FDA and propylthiouracil:
FDA ALERT [06/04/2009]; Adverse Event Reporting System

- 32 cases (22 adult and 10 pediatric) of serious liver injury associated with propylthiouracil use.
  - Adults - 12 deaths and 5 liver transplants
  - Pediatric - 1 death and 6 liver transplants.

- For methimazole 5 AERS cases of serious liver injury. All five cases were in adult patients and 3 resulted in death.

- Rare cases of embryopathy - aplasia cutis - with methimazole
PTU v methimazole

Both cross the placenta, but methimazole is about three times more likely to be associated with congenital malformation:

- Aplasia cutis
- Choanal atresia
- Esophageal atresia, fistula

Limit PTU to first trimester at lowest dose that will maintain maternal thyroid function in upper part of normal range

Cooper DS, Rivkees SA, Putting propylthiouracil in perspective. JCEM 2009; 94:1881-82

Case 3

- A 26 year old woman delivered her third child 18 weeks before presenting with palpitations and heat intolerance
- She has slight lid retraction but no exophthalmos
- Thyroid is palpably diffusely enlarged, 2x nl, and there is a bruit
- Heart rate is 124/min, regular
- Quite marked tremor

- Free T4 is 4.9 ng/dL (0.8-1.8) and TSH < 0.05 mU/L
- Thyroid peroxidase antibody titer is 44 IU/mL (normal <5)

- Her mother has had primary hypothyroidism for over 20 years
Case 3: Which statement is correct?

A. Her ocular signs rule out a diagnosis of postpartum thyroiditis

B. In postpartum thyroiditis a hyperthyroid phase typically lasts 5-6 months

C. Even if the thyroid stimulating immunoglobulin (TSI) titer is high radioactive iodine treatment is contraindicated

D. Radioactive iodine uptake will not help to distinguish postpartum thyroiditis from Graves’ disease in this case

E. Likelihood of developing postpartum thyroiditis is uninfluenced by breast feeding
Postpartum hyperthyroidism: key points

- Postpartum thyroiditis about 20 times more likely than an initial episode of postpartum Graves’
- RAI uptake decreased in PPT; increased in Graves’
- Positive TSI helps to distinguish Graves’ from PPT
- Ophthalmopathy does not occur in PPT, but lid retraction can occur in any hyperthyroid state
- Hyperthyroid phase of PPT typically resolves in 1-2 months and often followed by phase of hypothyroidism
- Positive TPO abs is typical in PPT
- Propensity to PPT is independent of breast feeding, maternal iodine status, smoking, parity, gender of fetus

Case 4:

A 29 year old woman is taking cabergoline 1.0 mg twice a week for a prolactin-secreting macroadenoma. Serum prolactin has been normal for the last year, with regular menses, and MRI has confirmed that the adenoma has decreased in size, but still measures 1.3 cm in transverse diameter, 0.9 mm vertical.

She calls to say that her last period was 7 weeks ago and that a pregnancy test is positive. She feels well and essentially has no complaints.

Case 4: What should you tell this patient?

A. It is more likely than not that she will have symptomatic enlargement of the adenoma during the pregnancy
B. She should immediately stop cabergoline because it has been shown not to be safe during pregnancy
C. Switching from cabergoline to bromocriptine, and continuing bromocriptine throughout pregnancy has been shown to produce the most successful outcome
D. Prolactin should be measured every 4 to 6 weeks
E. Visual fields should be assessed in each trimester
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D. Prolactin should be measured every 4 to 6 weeks
E. Visual fields should be assessed in each trimester

Prolactinomas and pregnancy: key points

- Risk of symptomatic enlargement in pregnancy:
  - Microadenoma: 1-2%
  - Macroadenoma: 3-4% if prior surgery or radiation
    - 20-25% if not

- Neither bromocriptine nor cabergoline has been shown to be associated with increased risk of maternal or fetal outcome compared with general population

- Published experience for bromocriptine exceeds that for cabergoline

- Prolactin levels may not rise as they normally do in pregnancy

Prolactinomas and pregnancy: key points

- **Options for macroadenoma:**
  - intensive monitoring without dopamine agonist therapy
  - continuous dopamine agonist (bromocriptine)
  - surgical debulking
- Monitor **symptoms** like headache and vision, at least monthly if macroadenoma
- **Visual fields** – “as necessary” if microadenoma
  - each trimester if macroadenoma
- **Monitoring prolactin** level is not essential
- **MRI** without gadolinium is safe
- **Enlarging tumor** – immediate bromocriptine
  - consider transsphenoidal surgery
  - consider delivery if advanced

Case 5:

- A 35 year old woman with has delivered her 4th baby 12 hours ago, when she starts to have a post-partum hemorrhage

- Blood pressure drops to 65/30 by which time blood transfusion is started

- Next day, after transfusion with 5 units whole blood, her blood pressure does not rise above 88/54, heart rate is persistently over 100, and she complains of severe nausea.

- CBC shows Hb 11.4g/dL, Hct 32%
Case 5: At this stage, of the following tests, which is likely to be most informative?

<table>
<thead>
<tr>
<th>Option</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Serum prolactin</td>
</tr>
<tr>
<td>B.</td>
<td>Serum free T4</td>
</tr>
<tr>
<td>C.</td>
<td>ACTH stimulation test</td>
</tr>
<tr>
<td>D.</td>
<td>Serum IGF-1</td>
</tr>
<tr>
<td>E.</td>
<td>Serum total T4</td>
</tr>
</tbody>
</table>
Sheehan’s syndrome: Key points

- Postpartum necrosis of pituitary
- Etiological factors – peripartum hemorrhage, shock, ischemia
  - enlarged pituitary of pregnancy
- Pituitary insufficiency may present acutely or insidiously
- Failure to lactate often the first real sign
- In acute presentation with adrenal insufficiency ACTH stim test may be normal, and T4 and IGF-1 may be normal because of their half-lives
- Prolactin is low, whereas it should be high postpartum
- Clinical DI rare, “subclinical” less so

Case 6:

- A 22 year old woman, previously healthy and normotensive, is found to have BP of 166/102 in the 32nd week of her first pregnancy. She has had mild headaches, but “nothing unusual”
- Examination, including the optic fundi, is normal
- Electrocardiogram meets criteria for LV hypertrophy
- Urinalysis shows a trace of protein, and she is started on metoprolol
- Within 4 days she is brought to the ER by her distraught husband who says she has had a headache this morning and just had “a seizure”. She is alert, but BP is 186/116

Case 6 (1): Which of the following statements is correct?

A. Plasma norepinephrine at this stage will be diagnostic of pheochromocytoma if it is double the upper limit of normal

B. In pregnancy the BP with a pheochromocytoma may become more elevated when the patient stands

C. Phenoxybenzamine is generally safe for the fetus

D. Metoprolol may cause false positive elevation of urine catecholamines and fractionated metanephrines

E. Maternal mortality approaches 50% if pheochromocytoma is not diagnosed until delivery, but earlier antenatal diagnosis reduces maternal mortality to only 10%
Case 6 (2):

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Stimulatory test such as glucagon</td>
</tr>
<tr>
<td>B</td>
<td>MRI of the abdomen and pelvis</td>
</tr>
<tr>
<td>C</td>
<td>Prescription of a beta-adrenergic blocking agent</td>
</tr>
<tr>
<td>D</td>
<td>Elective combined Caesarean section and tumor resection</td>
</tr>
</tbody>
</table>

24h urine fractionated total metanephrines (metanephrines + normetanephrines) is 5370mcg (ULN 1200).

Subsequent management during the pregnancy may include all of the following *except*:

A. Stimulatory test such as glucagon  
B. MRI of the abdomen and pelvis  
C. Prescription of a beta-adrenergic blocking agent  
D. Elective combined Caesarean section and tumor resection
Pheochromocytoma and pregnancy: Key points

- Presentation similar to non-pregnant
- Consider surgical intervention if before 24 weeks; medical management followed by C/S and tumor resection if later
- C/S carries less risk of maternal mortality than vaginal delivery
- “Undiagnosed” - maternal mortality high - 17% in one review
- Phenoxybenzamine crosses the placenta, but is generally considered safe (category C)
- Beta blockade may also be needed if arrhythmias or severe tachycardia

A 33 year old woman with one previous successful pregnancy two years ago has just been diagnosed with acromegaly. Following transsphenoidal surgery for a macroadenoma pituitary MRI showed no residual tumor, but serum GH was 4.9 ng/mL and IGF-1 was 375 ng/mL (normal 126-291). Prolactin was normal and she has had regular periods. No diabetes or hypertension.

Treatment with lanreotide 90 mg by deep sc injection every 4 weeks was started. 2 months later the IGF-1 was 298 ng/mL, with no adverse effects and an improvement in joint flexibility and decrease in sweating. Periods remain regular.

She says she and her husband would like to try for another pregnancy.

Case 7: You should tell this patient that:

A. There is increased risk of fetal loss and/or abnormal fetal growth due to the acromegaly, whether or not she develops diabetes or hypertension during the pregnancy

B. Growth hormone crosses the placenta but IGF-1 does not

C. Serum IGF-1 levels will tend to decrease spontaneously during pregnancy

D. Production of placental GH suppresses GH production from the pituitary adenoma in the first trimester

E. She should discontinue lanreotide now, prior to trying to conceive
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Philippe Caron, et al.  
J Clin Endocrinol Metab 2010; 95 (10):epub ahead of print.

IGF-1 during pregnancy in a woman with hypopituitarism (broken line) and in a woman with acromegaly (solid line)  
Wiesli P, et al.  
Acta Obstetricia Gynecologica. 2006; 85:900-905
Pregnancy and acromegaly: Key points

- Use of somatostatin analogues throughout pregnancy has been reported with apparently no problem, but numbers are small, and the recommendation is to discontinue once pregnancy is confirmed.
- Most assays cannot distinguish pituitary GH from placental GH, and levels of placental GH may double from 28 weeks on.
- Neither GH nor IGF-1 cross the placenta.
- IGF-1 levels tend to fall spontaneously in the first trimester and may be normal throughout pregnancy, but they rise to pre-pregnancy levels in the puerperium.
- Tumor growth during pregnancy seems to depend more on the characteristics of the tumor than on any influence of pregnancy – most do not change.
- Usually the pregnancy has a normal course, leading to normal delivery and healthy baby.


Case 8:

- A 31 year old mother of two was diagnosed with hypertension and started on HCTZ. Four months later she tested positive for pregnancy when a test was performed 7 weeks after her last period.
- At her first prenatal visit her BP was 128/86, and serum K+ was 3.1 mmol/L. She was switched to methyldopa, which was progressively increased, and she also took potassium.
- At approximately 32 weeks she complained of excessive weight gain, severe fatigue, had difficulty climbing stairs, and had noticed ankle edema.
- BP was 156/98, prominent reddish striae were noted on the abdomen, as was mild ankle edema. The examining doctor thought she might have Cushing’s syndrome (CS).
Case 8, continued:

24h urine free cortisol was 110 ng (normal 4-50 in gen population)
Late afternoon plasma ACTH was 22 pg/mL (10-60)
Serum K+ 3.8 mmol/L

Which of the following statements is correct?

A. The UFC and ACTH levels may be normal for pregnancy
B. CRH stimulation is the next logical test
C. Cortisol and ACTH lose their circadian pattern in normal pregnancy
D. Overnight dexamethasone suppression test will be more helpful in establishing the diagnosis
E. Inferior petrosal sinus sampling should now be performed

---

Case 8, continued:

Repeat 24h urine free cortisol is 573 ng
Plasma ACTH is 20 pg/mL and serum cortisol 38.2 mcg/dL
Abdominal MRI - a 3.1 cm diameter lesion consistent with a left adrenal adenoma

Which of the following statements is correct?

A. Despite the MRI finding the ACTH levels are not compatible with primary adrenal Cushing’s
B. Treatment with ketoconazole is the preferred option
C. Transplacental passage of cortisol may suppress the fetal adrenals
D. Placental production of ACTH or CRH is irrelevant in assessing the results
E. Even with treatment the fetal loss in maternal CS is about 50%
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Cushing’s syndrome in pregnancy: Key points

- In normal pregnancy:
  - Plasma ACTH and cortisol (total) rise progressively
  - Free cortisol also rises by up to threefold
  - Cortisol production rate is increased

- Primary adrenal CS is seen much more frequently in pregnancy (40-50% of cases) than in non-pregnant CS

- ACTH levels may be “normal” in patients with adrenal adenoma, perhaps due to placental ACTH or CRH secretion


Cushing’s syndrome in pregnancy: Key points

- Medical therapy is often not effective for CS in pregnancy
- Maternal complications are common – hypertension, diabetes, premature labor, wound infection
- Fetal complications: spontaneous abortion, stillbirth, prematurity; rarely adrenocortical suppression
- Prompt diagnosis and treatment reduces fetal loss from 30-40% to about 10-20%
- Appropriate adrenal or pituitary surgery represents much less risk than deferring surgery

Case 9

A 30 year old woman who had an uneventful pregnancy 2 years ago was found to have serum calcium 12.8 mg/dL at a routine visit to her gynecologist during which she said she was planning another pregnancy.

- She was totally asymptomatic
- She had no past medical or surgical history
- Physical exam absolutely normal
- Further labs were:
  
  Ca 12.3 mg/dl, P 2.2 mg/dL, intact PTH 87 pg/mL  
  24h urine calcium 239 mg on a normal diet

Case 9: All of the following are true except

A. In pregnancy, increased urine calcium loss and transfer of calcium from mother to fetus is usually counteracted by increased 1,25-dihydroxyvitamin D increasing intestinal absorption of calcium

B. Medical treatment of HPT during pregnancy with oral phosphates, calcitonin and loop diuretic is generally successful in normalizing calcium and ensuring good outcome in women who do not wish to have surgery

C. Untreated but otherwise asymptomatic HPT is associated with increased risk of second trimester miscarriage

D. Permanent hypoparathyroidism in the child is a rare but real potential complication of untreated maternal HPT

E. There is an increased risk of maternal hypercalcemic crisis and acute pancreatitis
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Pregnancy and hyperparathyroidism

- PTH levels tend to fall in the first half of normal pregnancy, and then rise in the second half

- The placenta has 1-alpha-hydroxylase activity, which results in placental conversion of 25-hydroxy to 1,25-dihydroxyvitmain D

- Medical treatments for HPT have shown only limited success, and bisphosphonates are contraindicated

Pregnancy and hyperparathyroidism

- In one study of women with HPT who had miscarriage but did not have parathyroidectomy before a subsequent pregnancy, fetal loss occurred typically in the late first or early second trimester, with second trimester losses (30%) being six-fold higher than expected ($P < 0.01$) and over 4 weeks later than typical ($P < 0.05$)
- Neonatal hypocalcemia is usually transient, but parathyroid aplasia is a rare complication of untreated maternal HPT
- Surgery BEFORE pregnancy is preferable, otherwise early in the second trimester is recommended.


Case 10

- An 19 year old woman who has had Type 1 diabetes since 6 years old says she and her boyfriend have decided to start a family. This is her first clinic visit in two years.
- Menarche was at age 11, and she has had regular periods for the last 6 years, both before and since going on a contraceptive pill 2 years ago.
- At age 17 she was diagnosed with non-proliferative retinopathy, and she has not had an eye exam since then.
- She has had no lab investigations in last two years
- Prescribed insulin when last seen was:
  - glargine insulin 15 units QAM
  - insulin aspart 1 unit for 15g CHO before meals
- She has been prescribed lisinopril 5 mg daily
Case 10, continued

- She admits she frequently “forgets” to take mealtime shots
- She smokes 5-10 cigarettes a day, drinks wine 3 evenings a week, denies recreational drug use
- Is a sophomore at college – media studies
- Exam: Wt 118 lb, ht 5’ 5”
  - Pulse 84, regular, BP 136/88, urine trace positive for protein
  - Retinal exam through non-dilated pupils in office reveals extensive bilateral non-proliferative retinopathy and perhaps disc new vessels
- HbA1c in office (desktop) is 15.2%

Case 10: You advise her all of the following except

A. She should switch from glargine insulin because its potential interaction with IGF receptors makes it less safe than other insulins in pregnancy
B. She should continue the oral contraceptive at this stage and enroll in your institution’s pre-pregnancy diabetes clinic
C. She should quit smoking but at this stage she can have wine with her evening meal if she wishes
D. She should see a retinal specialist before she conceives
E. She should discontinue lisinopril, even though for the first trimester it is considered a category C drug: (maternal benefit may outweigh fetal risk)
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Insulin Glargine

- FDA approved April 24, 2000
- Manufactured by Sanofi-Aventis
- **Not FDA approved** for use in pregnancy
- Pregnancy Class C
Binding Affinity for IGF-1 Receptor

It was only at the highest level tested in these studies (200 nm) that insulin glargine displaced more IGF-I than human insulin.

Despite this difference, insulin glargine has less than 0.1% of the affinity of the native ligand for the IGF-I receptor.

Ciaraldi TP, et al. JCEM Vol. 86, No. 12 5838-5847

Is glargine binding to IGF-1 receptor clinically relevant?

- Has 0.1% of the affinity of the native ligand for the IGF-I receptor (1,000 fold)
- Concentration of IGF-1 in vivo is nanomolar vs. insulin which is picomolar

1,000 fold difference in concentration
- In addition, IGF-1 is made in the liver (principal source) but additional IGF-1 is generated within target tissues, making it what appears to be both an endocrine and an autocrine/paracrine hormone (unlike insulin)

Ciaraldi TP, et al. JCEM Vol. 86, No. 12 5838-5847
Insulin transfer across placenta?

- It is believed that insulin does not cross the placental barrier because of its large molecular size

  - However, beef/pork insulin has been shown to cross the placenta via the formation of insulin-antibody complexes
    - lead to fetal macrosomia despite excellent glycemic control


---

Insulin transfer across placenta

- Can insulin Ab produced by some DM-1 patients transfer insulin across the placenta?
  - Yes

- Can these Ab cross-react between different insulins?
  - Yes
  - Antibodies developed against the human insulin analogues are cross reactive with recombinant human insulin (Ottesen JL)

- Prevalence of Ab in DM-1 patients taking insulin?
  - Patients with DM-1 treated with CSII vs. MDI with insulin analogues (Sahin SB)
    - Insulin Antibodies: CSII group (% 24.6 ± 14.2) MDI group (% 13.2 ± 9.9)

What is normal complication rate of pregnancy with DM-1?

Table 4 Comparison of outcomes with population studies of Type 1 diabetes in pregnancy

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pregnancies</td>
<td>462</td>
<td>275</td>
<td>323</td>
<td>990</td>
<td>1707</td>
<td>Lantus 115</td>
</tr>
<tr>
<td>Live births, %</td>
<td>76</td>
<td>78</td>
<td>72</td>
<td>—</td>
<td>78</td>
<td>95</td>
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<tr>
<td>Stillbirths, %</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Pregnancy loss (spontaneous abortion/miscarriage), %</td>
<td>17</td>
<td>15</td>
<td>28</td>
<td>—</td>
<td>—</td>
<td>5</td>
</tr>
<tr>
<td>Congenital Malformation rate* (per 1000)</td>
<td>94</td>
<td>69</td>
<td>88</td>
<td>50</td>
<td>48</td>
<td>28</td>
</tr>
</tbody>
</table>

*Studies differed in the definition and scope of congenital malformations.

Medical nutrition therapy is an integral component of diabetes management in the decision-making process. The goal of evidence-based recommendations is to manage hyperlipidemia, cardiovascular disease, hypertension, and nephropathy.

**ALCOHOL AND DIABETES**

For persons with diabetes, the same precautions apply regarding the use of alcohol that apply to the general population.

If individuals choose to drink alcohol, daily intake should be limited to one drink for adult women and two drinks for adult men. One drink is defined as 12 oz of beer, 5 oz of wine, or 1.5 oz of distilled spirits.

Abstention from alcohol should be advised for women during pregnancy.