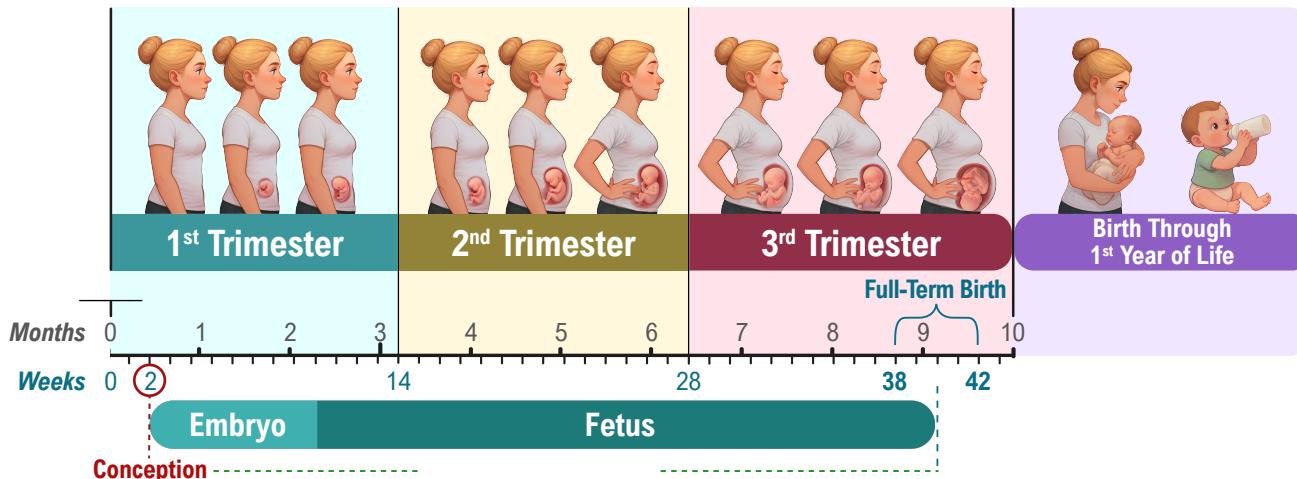


## CONCEPT: PRECONCEPTION NUTRITION

### Overview of Pregnancy & Infancy

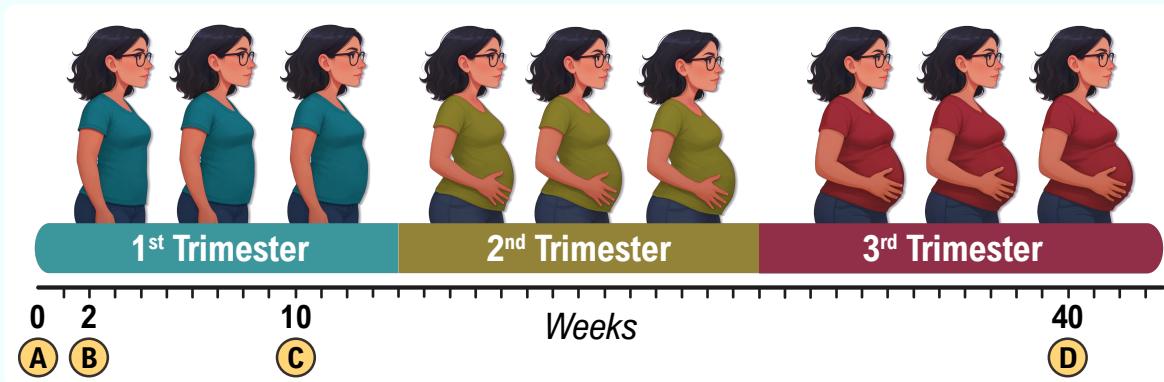
- ◆ Pregnancy is a ~9-month (~40 week) process broken up into \_\_\_\_\_ trimesters.
- ◆ Proper nutrition *before* pregnancy, *during* each trimester, & *through* infancy is critical to a healthy start in life!
  - **Gestation:** the developmental *timeline* of the embryo/fetus between \_\_\_\_\_ & **birth**.
  - **Conception:** the moment a sperm cell \_\_\_\_\_ an egg, forming a **zygote**.
- ◆ In medical settings, gestation/pregnancy is measured from 1<sup>st</sup> day of the mother's **Last Menstrual Period** (\_\_\_\_\_\_).



### EXAMPLE

Appropriately match each of the following events with the letters (A, B, C, D) that appear in the image.

- |                         |  |
|-------------------------|--|
| - Conception _____      | - Embryo becomes a fetus _____                   |
| - Full-term birth _____ | - Beginning of last menstrual period (LMP) _____ |



### PRACTICE

At what point in the pregnancy process should a woman start eating a healthy, nutritious diet?

- a) Before conception.
- b) At conception.
- c) When the zygote becomes an embryo.
- d) When the embryo becomes a fetus.

## **CONCEPT: PRECONCEPTION NUTRITION**

### **Nutrition Before Conception**

◆ An adequate/varied \_\_\_\_\_ & *physical activity*, resulting in a healthy *preconception weight*, can:

- \_\_\_\_\_ chances of conception.
- \_\_\_\_\_ chances of having a healthy pregnancy.
- \_\_\_\_\_ risk of early-pregnancy nutritional deficiencies (e.g. folate (B<sub>9</sub>) deficiency).

◆ Women hoping to get pregnant should especially:

Consume a healthy diet, making sure to get adequate micronutrients.	Try to attain a healthier bodyweight before conception.	_____ <b>teratogens</b> (substances that cause birth defects).

**Note:** These preconception strategies also apply to \_\_\_\_\_ (ensures healthy sperm).

## **EXAMPLE**

Complete the following survey to assess your readiness for a healthy pregnancy (for both men & women).

1	Is your BMI significantly higher or lower than the healthy range?	
2	Do you have an unhealthy diet or get little/no physical activity?	
3	Do you smoke?	
4	Do you have >2 alcoholic drinks per day (men) or >1 drink per day (women)?	
5	Do you use any recreational drugs (e.g. marijuana, cocaine, ecstasy etc.)?	

If you answered no to all these questions, you're improving your chances for a healthy pregnancy! Check out the rest of this chapter to find out how these factors can impact the health of a pregnancy.

## **CONCEPT: PRECONCEPTION NUTRITION**

### **PRACTICE**

True or false? If false, choose the answer that best corrects the statement:

When a couple is trying to conceive, the man's diet can have an impact on both the likelihood of conception & the health of the pregnancy.

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- a) True.
- b) False; a man's diet can affect his sperm count (which affects likelihood of conception) but has no impact on the health of the pregnancy once conception has occurred.
- c) False; a man's diet does not significantly affect sperm count or health of the pregnancy; the only factors to consider are whether he drinks alcohol & smokes.
- d) False; only the woman's diet & health can impact the likelihood of conception & health of pregnancy.

### **PRACTICE**

Christine and her partner are trying to have a child. Her BMI is currently in the overweight range, and she drinks wine every weekend & on some weeknights. She eats a healthy, well-rounded vegetarian diet and does not smoke cigarettes. What should be her priority now that she and her partner are trying to conceive?

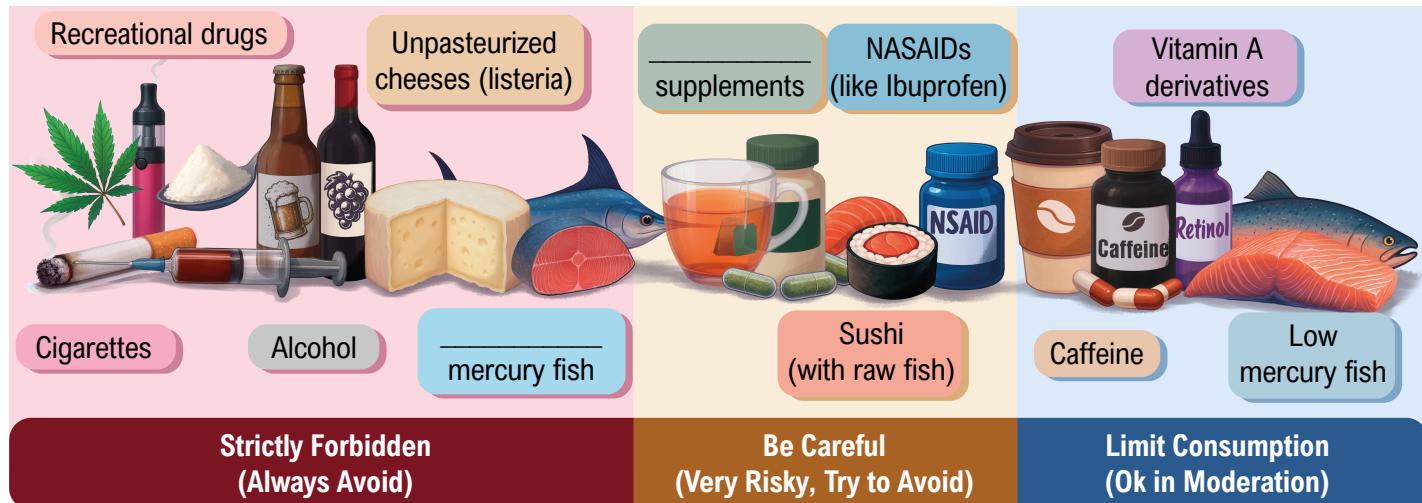
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- a) Going on a low-carb diet to lose weight as fast as possible to get into the ideal BMI range.
- b) Increasing protein & calcium intake, as she doesn't get enough of these nutrients from her vegetarian diet.
- c) Reducing alcohol consumption, maintaining her healthy diet, & trying to attain a healthier BMI.
- d) Start taking vitamin D, vitamin E, & calcium supplements.

## **CONCEPT: PRECONCEPTION NUTRITION**

### **Teratogens**

- ◆ Teratogens should be *avoided* or *limited* while trying to conceive, during ALL of pregnancy, & while breastfeeding.
- ◆ Recall: **Teratogens**: substances known to *disrupt* normal fetal development & cause *birth* \_\_\_\_\_.
  - May cause *spontaneous abortion* (\_\_\_\_\_).



## **PRACTICE**

Which of the following meals is most appropriate for a pregnant woman to eat regularly?

- Albacore tuna sandwich with whole grain bread, lettuce, tomato, pickle, & mayonnaise.
- Grilled chicken sandwich with cheddar & lettuce, served with apple slices & a cup of sparkling water.
- A cheese board with brie, goat's cheese, crackers, grapes, and assorted nuts.
- Roasted chicken with potatoes & broccoli & a cup of chamomile tea.

## **CONCEPT: PRECONCEPTION NUTRITION**

### **PRACTICE**

Which of the following is recommended for pregnant women?

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- a) Do not drink any coffee.
- c) Do not eat any cheese.
- b) Do not eat any seafood.
- d) Do not consume herbal supplements & teas.

### **PRACTICE**

A woman is entering the third trimester of pregnancy. Which of the following statements is true?

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- a) She is about 10 weeks pregnant (halfway through pregnancy).
- b) Since she is now entering the third trimester, the baby is almost fully developed & she can start drinking alcohol again in moderation.
- c) Now that the fetus is entering the final stage of development, she should avoid all caffeine completely as it becomes a stronger teratogen in the 3rd trimester.
- d) She is about 27 weeks pregnant & should continue to avoid teratogens.