

CONCEPT: NUTRITION DURING GESTATION

Weight Gain During Pregnancy

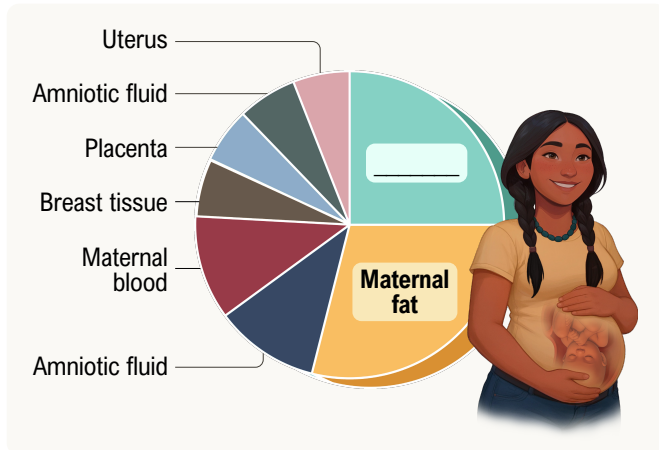
- ◆ During pregnancy, most nutrient needs _____ & the mother will _____ weight.

Protein needs increase from 0.8 to _____ g per kg body weight per day.

Carb needs increase from 130 to _____ g per day.

Fat needs remain the _____.

- ◆ Weight-gain should be _____ & *steady* (~0.3-1 lbs. per week) & depends on mother's initial _____.



Mother's BMI at Conception	Weight Gain During Pregnancy
Underweight (BMI < 18.5)	28-40 lbs.
Healthy Weight (BMI 18.5 - 24.9)	25-35 lbs.
Overweight (BMI 25 - 29.9)	15-25 lbs.
Obese (BMI ≥ 30)	11-20 lbs.

PRACTICE

Sandy and Molly are best friends who have both recently become pregnant. Sandy's BMI is currently 17.5, while Molly has a BMI of 27. Which of the following statements is true?

- a) They should aim to gain the same amount of weight as each other throughout pregnancy.
- b) Sandy should aim to gain more weight than Molly throughout pregnancy.
- c) Molly should aim to gain more weight than Sandy throughout pregnancy.
- d) Sandy's fat intake should increase significantly, while Molly's fat intake should decrease significantly.

PRACTICE





Alison had a BMI of 23 at conception, & her doctor says her target weight by the end of pregnancy should be 165-175 pounds. How much did she weigh at conception?

- a) 120 pounds.
- b) 130 pounds.
- c) 140 pounds.
- d) 50 pounds.

CONCEPT: NUTRITION DURING GESTATION

Micronutrients & Hydration During Gestation

- ◆ Most micronutrients are needed in _____ quantities.
 - Pregnant mothers *slow down* digestion & **increase absorption** of some nutrients.

Micronutrient	Relevance	RDA for Pregnant Mothers
Folic Acid (Vitamin B₉) 	Prevents _____ tube defects (e.g. spina bifida, anencephaly).	600 µg per day (up from 400 µg).
Iron 	Helps produce more _____ blood cells, prevents anemia, stores iron in the fetus.	27 mg per day (up from 18 mg).
Zinc 	Protein synthesis & enzyme function.	11 mg per day (up from 8 mg).
Calcium & Vitamin D 	Crucial for maintaining _____ density as the mother gains weight.	RDA is unchanged (more Ca ²⁺ absorbed from food).

- ◆ Fluid needs for pregnant mothers *increase* from ~2.7 to ~_____ liters daily.

EXAMPLE

Which of the following statements about micronutrient intake during pregnancy is true?

- a) Folic acid is very important because it helps keep the skeletal system strong enough to handle extra weight.
- b) Folic acid, iron, calcium & vitamin D are all needed in larger quantities than their normal RDA values.
- c) Calcium is very important for pregnant mothers but the RDA does not increase, as the body will absorb more.
- d) It is unsafe for pregnant mothers to use supplements to help them meet their micronutrient needs.

PRACTICE

Which of the following micronutrients is stored in significant amounts in the fetus during gestation?

- a) Folic acid.
- b) Iron.
- c) Vitamin B₉.
- d) Vitamin C.

PRACTICE

Which micronutrients would be the most beneficial for a pregnant woman to take in supplement form?

- a) Folic acid.
- b) Calcium.
- c) Vitamin D.
- d) Iron.
- e) a & d only.
- f) b & c only.

CONCEPT: NUTRITION DURING GESTATION

Uncomfortable Symptoms, Cravings, & Aversions During Gestation

- ◆ **Morning Sickness:** *nausea & vomiting*, most common in ____ trimester (no cure, but symptoms can be reduced).
 - *Gastroesophageal reflux (GER) & constipation* are also common.
- ◆ & **aversions** to certain foods may develop.

Common Cravings

- Citrus fruits
- Ice cream
- Pickles
- Chocolate



Pica: craving ____-food items (e.g. clay, dirt, cornstarch etc.).



Common Aversions

- Spicy foods
- Fried foods
- Coffee & tea



PRACTICE

Which of the following statements is true?

- a) Morning sickness only occurs between 4 am & 12 pm.
- b) The only known cure for morning sickness is to eat citrus fruit.
- c) Pica is a medical condition where a pregnant woman craves inedible items.
- d) Spicy foods, coffee & tea should be completely avoided during pregnancy.

CONCEPT: NUTRITION DURING GESTATION

Nutrition & Exercise Across the 3 Trimesters

- ◆ A pregnant mother's nutritional needs _____ throughout each trimester.

1 st Trimester (Weeks 0 – 13)	2 nd Trimester (Weeks 14 – 27)	3 rd Trimester (Weeks 28 – 40)
Greatest susceptibility to teratogens . Embryo develops into a _____.	Fetus grows to ~2 lbs total weight.	Fetus grows to full size (6.5-8.5 lbs.).
Morning sickness & food cravings/ aversions begin to occur.	Physical symptoms due to weight gain may start (e.g. back pain).	Pressure on internal organs may cause GER, constipation, & increase risk of hemorrhoids.
_____ weight gain expected.	Mother gains ~1 pound per week.	
_____ yet necessary to increase total daily Calories.	Mother consumes ~_____ extra kcal per day.	Mother consumes ~_____ extra kcal per day.

- ◆ Aim to *carefully* do >_____ mins of low-moderate intensity exercise per week throughout gestation.

EXAMPLE

Mark the following activities as safe (S) or unsafe (U) to do during pregnancy:

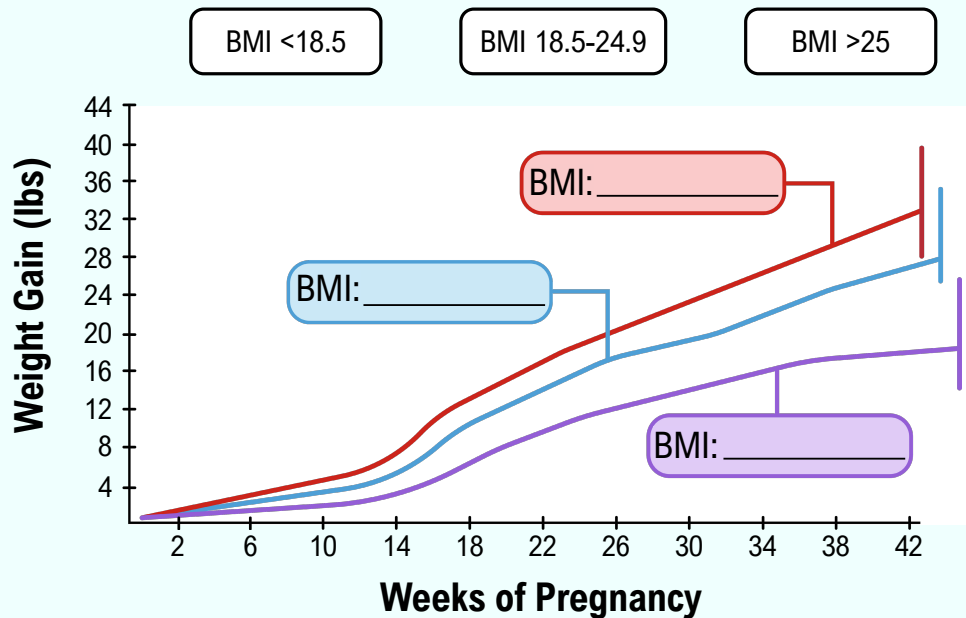
A yoga class	_____
Playing a soccer game	_____
Going for a swim	_____
Drinking raspberry leaf tea	_____

Eating a steak	_____
Working out on a stationary bike	_____
Jet skiing	_____
Mountain biking	_____

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EXAMPLE

Correctly label the following graph with the prepregnancy BMIs below:



PRACTICE

Cara is 8 weeks pregnant and has just begun experiencing morning sickness & unusual food cravings. She has not gained any significant weight since finding out that she was pregnant, and she currently exercises for 3 hours per week on a stationary bike. How should she adjust her routine for an optimal pregnancy?

- a) She should be eating more Calories per day to help her start gaining weight.
- b) She should add mountain biking into her routine to give her more fresh air.
- c) She should decrease the amount of exercise she is doing as it could be dangerous for the fetus.
- d) She does not need to make any major adjustments to her routine at the moment.

PRACTICE

Which of the following is uncommon and a major cause for concern during pregnancy?

- a) Nausea and vomiting during weeks 8-14 of gestation.
- b) Heartburn & constipation after a big meal in the third trimester.
- c) Gaining no weight throughout the first trimester.
- d) Gaining no weight throughout the second trimester.