



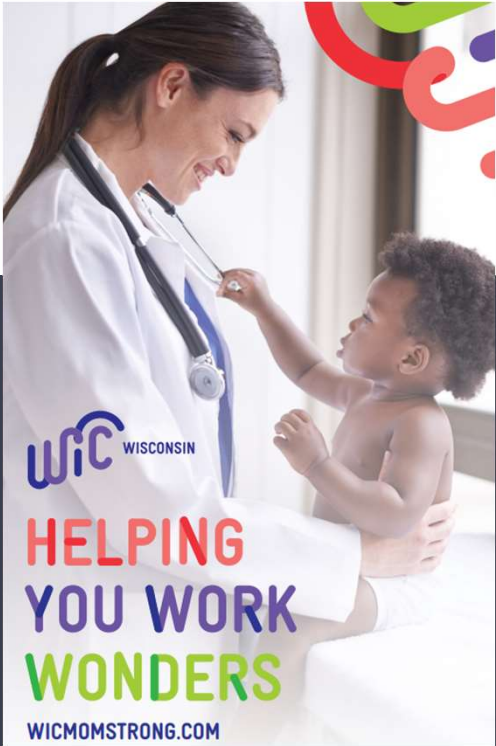
**ST. CROIX COUNTY**  
*Wisconsin*  
Innovation Through Cooperation

**WIC: Women, Infants, & Children | Prenatal Nutrition**

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To join, go to: [ahaslides.com/OTWHF](https://ahaslides.com/OTWHF)

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**Special Supplemental program for  
Women, Infants, and Children**

- WIC is a federal program offered in all U.S states and territories.
- WIC is a nutrition program that is designed to help families improve their health outcomes.

**WIC WISCONSIN**  
**HELPING YOU WORK WONDERS**  
[WICMOMSTRONG.COM](https://wicomomstrong.com)

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**Special Supplemental program for Women, Infants, and Children**

- WIC focuses on specific areas to help improve health outcomes such as:
  - Reducing complications during pregnancy
  - Reducing iron-deficiency anemia
  - Decreasing the number of low birth weight and premature infants
  - Increasing the number of breastfeeding mothers
  - Improving growth and development of young children
  - Improving access to health care.

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**WHO IS ELIGIBLE FOR WIC?**

WIC services individuals who are:

- Pregnant
- Up to six months postpartum
- Providing their human milk to a WIC enrolled infant up to 12 months old
- Under 5 years of age.

Fathers, grandparents, foster parents, or other guardians may apply for WIC for children up to the age of 5.



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## WHO IS ELIGIBLE FOR WIC?

Families are eligible if they have income up to 185% of the federal poverty level or are enrolled in foster care, Kinship Care, or Foodshare.

Many families enrolled in Medicaid/BadgerCare Plus also qualify for WIC.

A family of 4 with an income of about \$57,700 will qualify for WIC.



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[Pick Answer](#)

In Wisconsin, about how many women, infants, and children participate in WIC each month?


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## WIC PROVIDES:



- Following recommendations from the Dietary Guidelines for Americans
- Meets the special nutrition needs of pregnant and breastfeeding participants and growing children.
- WIC foods are high in protein, calcium, iron, and vitamins.



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## Food Packages

- Formula
- Infant cereal, fruit & vegetables, meats\*
- Whole milk (1 year old)
- 1% or skim milk (2+)
- Cheese
- Yogurt
- Soy & lactose free milk also available\*
- Tofu also available\*
- Peanut butter
- Beans
- Whole grain foods
- Cereal
- 100% fruit juice
- Fruit & vegetable \$\$
- Eggs
- Canned fish\*

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## WIC PROVIDES:



- WIC helps support reaching breastfeeding goals.
- Refer families to WIC for
  - Peer Counselors
  - Breastfeeding experts.



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## WIC PROVIDES:



- WIC connects families to health and community services, resources, and programs
- WIC nutrition professionals will encourage participants to see providers and keep appointments.



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## WIC PROVIDES:

- Lead screenings
- Fee exempt well water testing program
- Farmers Market nutrition program
- Fit Families Program



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## WIC and our Community

### Partners & Referrals

- Dental Services
- FoodWise & Food Pantries
- Family Resource Center
- Homeless Shelters
- HeadStart & Birth to 3
- PH Nursing (PNCC, immunizations, safe sleep, reproductive health, etc.)
- BadgerCare
- Domestic & Child Abuse Programs
- Mental Health Resources
- Substance Use Programs
- Primary Care Providers

### WIC Supports the Community

- Brings \$\$ into the grocery stores & supports local farmers
- Fosters community partnerships that improve access to healthy foods
- Provides a one-stop-shop for families to access community resource information.

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## WIC PROVIDES:



- WIC nutrition professionals provide ongoing assessments and routine follow-ups.
- WIC works with families to address:
  - Healthy eating habits
  - Dietary needs
  - Meal planning
  - Feeding concerns



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## WIC PROVIDES:



- Nutrition education is designed to assist participants in identifying behavior changes that may have a positive impact on their health for the rest of their lives.
- 92% of mothers whose children were receiving WIC at 3.5 years or age indicated the nutrition education they received was as important as the food they received.

(Borger et al., 2020)



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## WIC Works!

- ✓ **WIC participation** leads to healthier infants, more nutritious diets, and better health care for children. <sup>3</sup>
- ✓ **WIC moms experience** longer pregnancies, fewer premature births. <sup>2</sup>
- ✓ **WIC moms give birth** to healthier babies. <sup>3</sup>
- ✓ **WIC moms are twice as likely** to plan to breastfeed and to breastfeed longer. <sup>1</sup>
- ✓ **Breastfeeding** reduces the risk of diseases and infections for both moms and infants. <sup>1</sup>
- ✓ **Children enrolled in WIC** are more likely to have regular medical care and up-to-date immunizations. <sup>2</sup>
- ✓ **Children who receive WIC** benefits demonstrate improved intellectual development. <sup>2</sup>
- ✓ **WIC helps get children ready** to start school. <sup>2</sup>
- ✓ **Children who participate in WIC** do better in school. <sup>3</sup>

WIC Works: Addressing the Nutrition and Health Needs of Low-Income Families for More Than Four Decades | Center on Budget and Policy Priorities (cbpp.org)

How WIC Helps | Food and Nutrition Service (usda.gov)  
2017-WIC-Stronger-America.indd


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Pick Answer

For every dollar spent on prenatal WIC services, how much do you think is saved due to improved birth outcomes and reduced health care costs?



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Leaderboard



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## Prenatal Nutrition



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## Prenatal Nutrition

1st trimester

2nd &amp; 3rd trimester

2 cups

2 cups

fruits

1 cup sliced or chopped fruit | 8 ounces 100% fruit juice  
 ½ cup dried fruit | 1 small apple | 1 large banana | 8 strawberries

2½ cups

3 cups

vegetables

1 cup raw or cooked vegetables | 8 ounces 100% vegetable juice  
 2 cups leafy greens or lettuce | 12 baby carrots | 1 large tomato  
 1 cup cooked dry beans or peas

6 ounces

8 ounces

grains

1 slice of bread | 1 (6 inch) tortilla | 1 cup breakfast cereal  
 ½ cup cooked cereal, rice or pasta | 4 round or 10 small square crackers

5½ ounces

6½ ounces

protein

1 ounce beef, pork, chicken, turkey, fish or other meat  
 1 tablespoons peanut butter | 1 egg | 2 Tbsp hummus  
 ½ cup cooked beans or tofu

3 cups

3 cups

dairy

8 ounces milk | 8 ounces yogurt | 2 ounces processed cheese  
 1 ½ ounces natural cheese

<https://www.nutrition-one.com/>

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## Prenatal Nutrition

### Calcium

(Recommended 1,000 – 1,300 mg per day)

- Grow and build health bones and teeth
- Helps nerves and muscles
- Maintains blood pressure
- Sources include:
  - Milk, cheese, yogurt
  - Soy milk and tofu
  - Dark green leafy vegetables (Broccoli, Collard Greens, and Kale)
  - Edamame
  - Canned sardines and salmon



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## Prenatal Nutrition

### Vitamin D

(Recommended 600 IU per day)

- Helps absorption of calcium and phosphorus
- Shapes and supports bones and muscles
- Helps prevent disease (rickets)
- Produced by skin from sun exposure.
- It is difficult to get from diet alone.
- Sources include:
  - Dairy
  - Fatty Fish (Trout, Salmon and Tuna)
  - Beef Liver
  - Egg Yolk
  - Mushroom



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## Prenatal Nutrition

### Protein

(Recommended: 71 Grams per day)

- Building blocks that help baby grow and keep mom and baby healthy
- Sources include:
  - Meat
  - Beans or peas
  - Nuts and seeds
  - Tofu
  - Eggs



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## Prenatal Nutrition

### Fiber

(Recommended 20-30 grams per day)

- Whole grains, fruits, and vegetables are a great source of fiber.
- Whole grains includes iron and folate which help with growing a healthy brain and spine.
- Fiber help prevent constipation.
- Recommended to choose whole grains for at least ½ of the grain foods consumed daily.
- Recommended to keep ½ of the plate for fruits and vegetables.



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## Prenatal Nutrition

### Iron

(Recommended 27mg per day)

- Iron carries oxygen to cells.
- Helps with baby's growth and development.
- Baby store iron to use after birth.
- Iron Food Sources:
  - Meat, Eggs, Beans, Nuts, Tuna, Shrimp, Fortified grains, Dried fruit
- Vitamin C helps absorb iron
- Vitamin C Food Sources:
  - Melons, Tomatoes, Orange Juice, Bell Peppers, Cauliflower, Grapefruit, Strawberries, Kiwi, and Mango.



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## Prenatal Vitamin

### Folic Acid, Iron, and Iodine



- **Folic Acid (Recommended 400-800 micrograms per day)**
  - Used by the body to make new cells
  - Helps prevent birth defects anencephaly and spina bifida
- **Folic Acid Food sources:**
  - fortified breakfast cereal, fortified whole grains, beans, peas, spinach, asparagus, brussels sprouts, romaine lettuce, avocado, broccoli, and mustard greens.
- **Iron (Recommended 27 milligrams per day)**
  - Combination of a prenatal vitamin and eating iron rich foods helps ensure enough iron is consumed for a healthy pregnancy.
  - Gummy vitamins do not include iron

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## Prenatal Vitamin

### Folic Acid, Iron, and Iodine



- **Iodine (Recommended 220 micrograms per day)**
  - Used to make thyroid hormones, regulates metabolism, growth, and development.
  - Helps build bones, nervous system, and brain.
- **Women who don't consume dairy products, eggs, and seafood may not consume enough iodine to meet increased needs during pregnancy.**
- **Iodine Deficiency**
  - Postpartum hyperthyroidism, perinatal mortality, neonatal hypothyroidism
  - Increased risk for abortion, higher mortality, birth defects, neurological disorders and brain damage.

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how much weight do I need to gain?

if your BMI was...	you are....	gain a total of...
< 18.5	underweight	28 to 40 lbs
18.5 to 24.9	normal weight	25 to 35 lbs
25.0 to 29.9	overweight	15 to 25 lbs
≥ 30.0	obese	11 to 20 lbs

<https://www.nutrition-one.com/>

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## Prenatal Weight



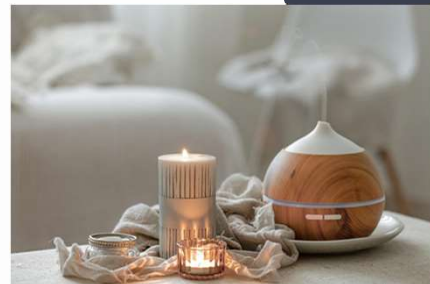
- **Risks of Gaining Too Much**
  - Increased risk of gestational diabetes and high blood pressure
  - Causes problems with labor and delivery
- **Excess intake of calories during pregnancy is associated with:**
  - Mothers: Miscarriage, Diabetes, Pre-eclampsia
  - Children: Obesity and Type 2 Diabetes
- **Nutritional insufficiency in the fetal period is related to:**
  - Glucose intolerance, Diabetes, Hypertension, and Coronary Disease later in life.

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## Pregnancy Concerns & Nutrition

### Nausea/Vomiting Tips:

- Eat small meals every 2-3 hours
- Avoid strong smells
- Open a window or use a fan
- Eat foods that don't need to be cooked
- Avoid spicy foods & fried foods
- Eat a salty food
- Try a sour food
- Drink liquids between meals
- Sip on ginger ale
- Move slowly
- Nibble on dry crackers
- Get plenty of rest
- If you smoke, try to quit



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## Pregnancy Concerns & Nutrition

### Heartburn



- Eat small amounts of food slowly
- Avoid overeating
- Limit liquids to small amounts with meals
  - Drink most liquids between meals
- Wear loose fitting clothes
- Wait 2-3 hours to lie down after eating
- Raise the head of the bed

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## Pregnancy Concerns & Nutrition

### Constipation

- Eat foods high in fiber
- Drink more water
- Increase your physical activity



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## Food Safety for Baby & Parent

### Avoid

- **Raw Seafood:** may contain parasites or bacteria
- **Unpasteurized juice, cider, milk, & cheese:** may contain E. Coli or Listeria
- **Undercooked eggs:** may contain Salmonella
- **Premade deli salads:** may contain Listeria
- **Raw sprouts:** may contain E coli or Salmonella
- **Cold hot dogs & luncheon meat:** may contain listeria
- **Undercooked meat & poultry:** may contain E. Coli, Salmonella, Campylobacter, and/or toxoplasma gondii

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## Safety during Pregnancy

### Caffeine

- Stimulant & Diuretic
- Crosses the Placenta
- Limit to 12oz per day



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Word Cloud

What is one thing from today's presentation that you will share with others?

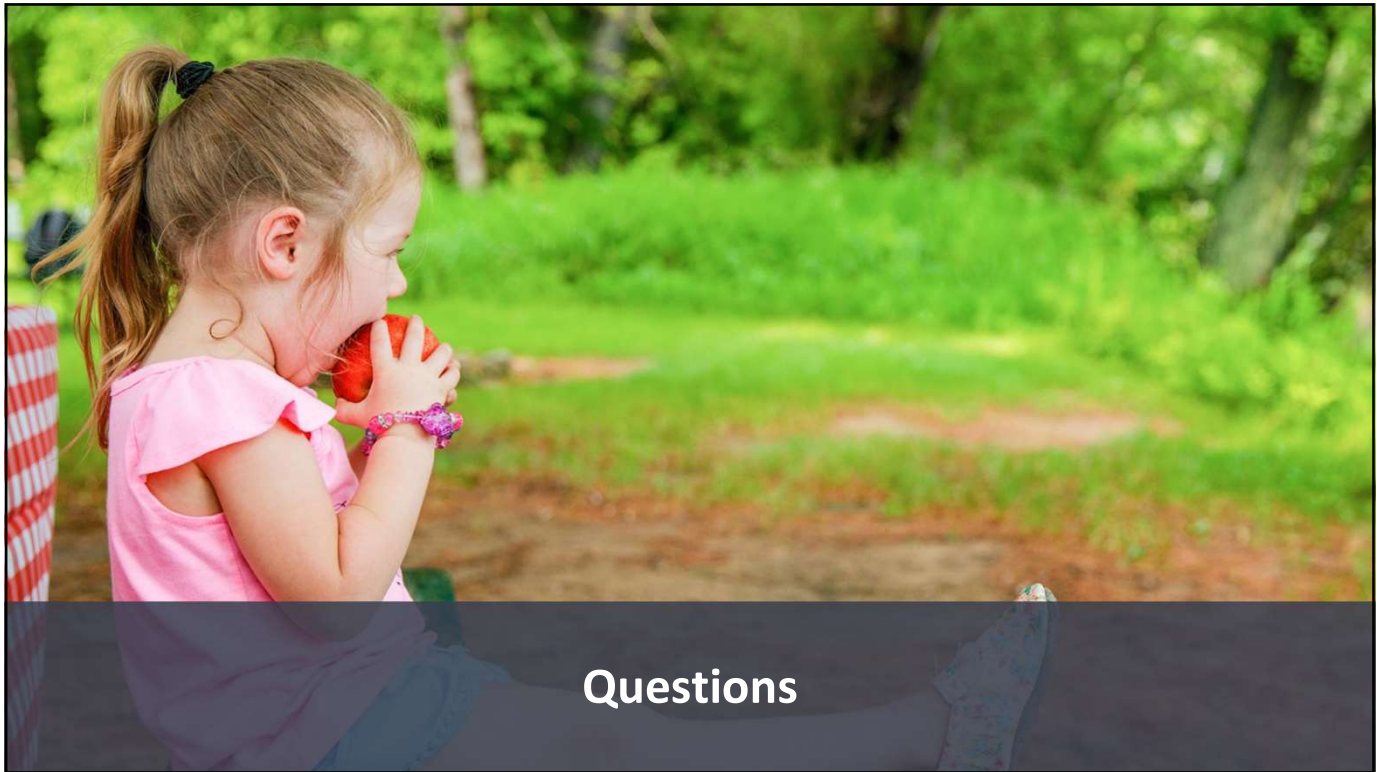
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## Additional References

- American Pregnancy Association. (n.d.). Caffeine and pregnancy. Retrieved [March, 11, 2025], from <https://americanpregnancy.org/healthy-pregnancy/is-it-safe/caffeine-and-pregnancy/>
- American Pregnancy Association. (n.d.). Common Pregnancy Discomforts. Retrieved [March, 11, 2025], from <https://americanpregnancy.org/healthy-pregnancy/pregnancy-concerns/7-common-discomforts-of-pregnancy/>
- Anna V. Chorniy, Janet Currie, & Lyudmyla Sonchak. (2018). Does Prenatal WIC Participation Improve Child Outcomes? (Working Paper 24691; NBER Working Paper Series). National Bureau of Economic Research. [https://www.nber.org/system/files/working\\_papers/w24691/revisions/w24691.rev0.pdf](https://www.nber.org/system/files/working_papers/w24691/revisions/w24691.rev0.pdf)
- Birati, Y., Bloch, J. R., McKeever, A., & Chiatti, B. D. (2022). Relationships Among Neighborhood Poverty, Access to Healthy Food, and Diabetes Self-Management in Women Who Received Perinatal Nurse Home Visits. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 51(1), 41–52. <https://doi.org/10.1016/j.jogn.2021.10.004>
- Christine Borger, Thea Zimmerman, Tracy Vericker, Jill DeMatteis, Bibi Gollapudi, Shannon Whaley, Lorrene Ritchie, Lauren Au, Linnea Sallack, & Laurie May. (2020). WIC Infant and Toddler Feeding Practices Study-2: Fourth Year. US Department of Agriculture, Food and Nutrition Service. <https://fns-prod.azureedge.us/sites/default/files/resource-files/WIC-ITFPS2-Year4Report.pdf>
- Food and Nutrition Services (2023) Eye on Nutrition: Fiber, Eye on Nutrition: Protein, Iodine in the diet., Iron in the diet; and Folate/Folic Acid in the diet. Retrieved [March, 11, 2025], from <https://wicworks.fns.usda.gov>
- FoodSafety.gov. (n.d.). Pregnant women. U.S. Department of Health and Human Services. Retrieved [March, 11, 2025], from <https://www.foodsafety.gov/people-at-risk/pregnant-women>
- Hines, C. T., & Ryan, R. (2021). Early Childhood WIC Receipt and Cognitive and Socioemotional Outcomes at School Entry and Middle Childhood. In B. H. Fiese & A. D. Johnson (Eds.), *Food Insecurity in Families with Children: Integrating Research, Practice, and Policy* (pp. 55–75). Springer International Publishing. [https://doi.org/10.1007/978-3-030-74342-0\\_4](https://doi.org/10.1007/978-3-030-74342-0_4)
- Jackson, M. I. (2015). Early childhood WIC participation, cognitive development and academic achievement. *Social Science & Medicine*, 126, 145–153. <https://doi.org/10.1016/j.socscimed.2014.12.018>
- National Institutes of Health (n.d) Dietary Supplement Facts Sheet Retrieved [March, 11, 2025], from <https://ods.od.nih.gov/factsheets/list-all/>
- Nianogo, R. A., Wang, M. C., Basurto-Davila, R., Nobari, T. Z., Prellip, M., Arah, O. A., & Whaley, S. E. (2019). Economic Evaluation of California Prenatal Participation in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) to Prevent Preterm Birth. *Preventive Medicine*, 124, 42–49. <https://doi.org/10.1016/j.ypmed.2019.04.011>
- Nutrition One. (n.d.). Home. Nutrition One. Retrieved [March, 11, 2025], from <https://www.nutrition-one.com/>
- Soneji, S., & Beltrán-Sánchez, H. (2019). Association of Special Supplemental Nutrition Program for Women, Infants, and Children With Preterm Birth and Infant Mortality. *JAMA Network Open*, 2(12), e1916722. <https://doi.org/10.1001/jamanetworkopen.2019.16722>
- U.S. Food & Drug (n.d.). Advice about Eating Fish.. Retrieved [March, 11, 2025], from <https://www.fda.gov/food/consumers/advice-about-eating-fish>

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