

Nutrition for Pregnant Women

Nutrition for Pregnant Women – Study Notes

1. Why Nutrition Matters in Pregnancy

Aspect	Reason
Fetal growth	Supplies building blocks for organs, bones, brain
Maternal health	Reduces risk of anemia, gestational diabetes, hypertension
Birth outcomes	Lowers chances of preterm birth, low birth weight, birth defects
Long-term health	Influences child's future risk of obesity, diabetes, cardiovascular disease

2. Energy (Calorie) Requirements

Trimester	Additional Calories per Day*
1st	+0kcal (maintain pre-pregnancy intake)
2nd	+340kcal
3rd	+450kcal

*Based on average needs for a woman with moderate activity (2,200kcal baseline). Adjust up or down according to weight, activity level, and medical advice.

3. Macronutrient Guidelines

Nutrient	Recommended % of Total Energy	Key Food Sources	Special Notes
Carbohydrates	45–65%	Whole grains, fruits, starchy vegetables, legumes	Choose high-fiber options; limit refined sugars
Protein	15–20% (1.1g/kg body weight)	Lean meat, poultry, fish, eggs, dairy, soy, beans, nuts	Essential for fetal tissue; include a source of iron
Fat	25–35% (incl. <10% saturated)	Avocado, nuts, seeds, olive oil, fatty fish	Provide essential fatty acids (DHA, EPA) for brain development

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4. Micronutrients of Highest Importance

Micronutrient	Daily Recommended Intake (RDA)	Primary Food Sources	Pregnancy-Specific Role
Folate (Vitamin B9)	600 µg (dietary) + 400 µg supplement	Dark leafy greens, legumes, fortified cereals	Prevents neural tube defects
Iron	27 mg	Red meat, poultry, fish, lentils, fortified grains	Supports maternal blood volume & fetal oxygen transport; prevents anemia
Calcium	1,000 mg (? to 1,300 mg after 28 wk)	Dairy, fortified plant milks, tofu, sardines with bones	Builds fetal bones & teeth; protects maternal bone density
Vitamin D	600 IU (? to 800 IU after 18 wk)	Sunlight, fatty fish, fortified milk/juice	Enhances calcium absorption, immune function
Iodine	220 µg	Iodized salt, seaweed, dairy, eggs	Crucial for thyroid hormones & neurodevelopment
Omega-3 DHA	200–300 mg	Salmon, sardines, algae oil	Supports fetal brain and retina development
Vitamin C	85 mg	Citrus, berries, peppers, broccoli	Improves iron absorption
Vitamin A (pre-formed)	770 µg RAE (avoid excess)	Liver (limit), dairy, eggs	Vision & immune function; avoid > 10 mg/day pre-formed A
Zinc	11 mg	Meat, shellfish, beans, nuts	