The image features two teal-colored silhouettes on a light green background. The top silhouette shows a woman's profile from the side, looking down. The bottom silhouette shows a pregnant woman's profile from the side, also looking down. A pink horizontal band is positioned across the middle of the page, containing the main title and subtitle. The date 'April 2017' is located in the upper right quadrant. The entire page is framed by a decorative border with pink and teal segments.

April 2017

PRENATAL NUTRITION

HEALTHY EATING TIP OF THE MONTH

HEALTHY MOM, HEALTHY BABY

During pregnancy, your eating habits affect your baby. Your baby depends on good nutrition for growth & development. Making healthy food choices and having a balanced diet during pregnancy will help prepare your baby for lifelong health!

How many extra calories do I need?

It is actually a myth that you need to “eat for two” during pregnancy. You do need extra calories, but a gradual increase in calories as your baby develops will be just right!

First Trimester	No extra calories needed
Second Trimester	~300-350 extra calories/day
Third Trimester	~450 extra calories/day

Daily calories should be around 2,200-2,500 calories/day.

These extra calories should come from nutritious foods, such as lean meats, low-fat dairy products, fruits, vegetables, & whole grains.

What if I'm having twins or triplets?

Aim for an additional 300 calories per day for each fetus. Pregnant women with twins require about 2,500-2,800 calories/day.

Weight gain for twins:

BMI	Weight gain
18.5-24.9	37-54 lb.
25-29.9	31-50 lb.
≥ 30	25-42 lb.

*Weight gain and calorie needs for triplets and higher should be calculated by a health professional. Always consult your Registered Dietitian Nutritionist or doctor for your specific pregnancy needs.

How much weight should I expect to gain?

Weight gain during pregnancy is important for the development and growth of your baby, placenta, amniotic fluid, uterus, breasts, blood supply, and fat stores.

Normal weight gain is between 0-4 pounds during the first trimester and 1 pound per week during the second & third trimesters.

Remember pregnancy is not the right time to diet or lose weight as it could prevent your baby from getting essential nutrients.



1 Trimester

2 Trimester

3 Trimester

Ideal weight gain during pregnancy depends on your pre-pregnancy BMI:

BMI	Weight gain
<18.5	28-40 lb.
18.5-24.9	25-35 lb.
25-29.9	15-25 lb.
≥ 30	11-20 lb.

ESSENTIAL NUTRIENTS

PROTEIN

Protein helps your baby's tissue develop and also develops & repairs breast and uterine tissue, muscles, and blood during pregnancy.



IRON

Iron makes hemoglobin, a protein in red blood cells that brings oxygen to your tissues. The amount of blood in your body increases during pregnancy, so iron is needed to make your baby's blood supply.

DHA

DHA is needed for your baby's brain development and growth. It also helps you stay pregnant long enough.



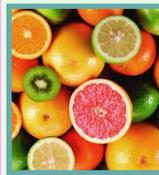
FOLIC ACID

Folic acid is needed for your baby's brain and spine. Folic acid also helps make blood during pregnancy. Enough folic acid is important in preventing neural tube defects (NTD), a major birth defect of baby's brain or spine.

70% of all NTD can be avoided with enough folic acid.

VITAMIN C

Vitamin C is needed for wound healing and helps develop your baby's teeth and bones.



FAT

Fat gives energy and helps make your baby's organs & placenta. Poly-unsaturated fatty acids (PUFAs) help with your baby's brain, nervous system, and retina development.



Daily Nutrient Requirements

Protein	75-100 g/day
Folic Acid	60 mcg/day
Iron	27 mg/day
Calcium	1000 mg/day
Vitamin D	600 IU/day
Vitamin C	85 mg/day
Iodine	220 mcg/day
DHA	200 mg/day

CALCIUM

Calcium helps develop your baby's bones, teeth, muscles, heart and nerve function. It is also needed for fluid control.

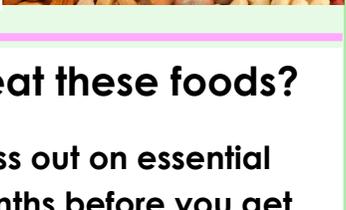


IODINE

Iodine helps develop your baby's brain and nervous system. Enough iodine will help your baby move, think, and feel.



COMMON FOOD SOURCES

Protein	Lean meat, fish, eggs, dairy, legumes, nuts, seeds	
Folic Acid	Green leafy vegetables, avocado, legumes, lentils, beans, orange juice, fortified bread and cereal	
Iron	Lean meat, seafood, clams, beef, cereal, bread, pasta, leafy green vegetables, beans, nuts, dried fruits	
Calcium	Milk, cheese, yogurt, broccoli, kale, tofu, nuts	
Vitamin D	Salmon, mackerel, tuna, mushrooms, eggs, vitamin D fortified milk and cereal	
Vitamin C	Fruits, vegetables, especially red and yellow peppers, broccoli, cabbage, strawberries, brussel sprouts, citrus	
Iodine	Fish, milk, cheese, yogurt, iodized salt, fortified cereal and bread	
DHA	Herring, salmon, trout, halibut, DHA fortified orange juice, milk, and eggs	
Fat	Sources of PUFAs: oily fish like salmon, trout, and herring, nuts, seeds, flaxseed, vegetable oil	

Should I still take a prenatal vitamin if I eat these foods?

Even if you eat a balanced diet, you can still miss out on essential nutrients. A prenatal vitamin, ideally started 3 months before you get pregnant, is recommended to make sure you get all the nutrients needed for a healthy pregnancy. Some medical professionals recommend women still take prenatal vitamins while breastfeeding.

FOOD CRAVINGS & AVERSIONS

Why do I have food cravings & how do I manage them?

The specific cause of food cravings during pregnancy is not known. However, research suggests they may be related to hormones during pregnancy. This can make you more sensitive to smells and tastes, which can cause cravings. It's okay to satisfy your cravings as long as you are eating safe food in small amounts!



PICA

If you are craving substances such as ice, clay, wax, laundry detergent, dirt, toothpaste, soap, coffee grounds, baby powder, chalk, or cotton balls etc., this is called Pica. Pica can be a sign of iron or calcium deficiency and should be addressed promptly by your doctor.



Take control of your cravings

If you're craving...	choose
Spice	Salsa or sauces
Sweet	Fresh fruit
Crunchy	Carrots, celery, nuts

CHOOSE THIS

NOT THAT

Low-fat pretzels	Potato chips
Water with lemon or lime	Soda
Dried fruit	Candy

How can I control my food aversions?

Find substitutes of similar nutritional value!

If your aversion is... try

Meat	Protein sources like beans, nuts, & eggs or add sauces/marinades to cut down on metallic flavor of meat
Dairy	Calcium sources like dark green leafy veggies or fortified OJ
Leafy green veggies	Nutrient-rich yellow & orange veggies or fresh fruit to fill your nutrient requirements



MORNING SICKNESS & HEARTBURN

Morning sickness is nausea, often with vomiting, during pregnancy. This usually happens because of increased hormones in your body. It is most common during the first 20 weeks of pregnancy.



Tips to combat morning sickness

DO	DON'T
Eat small meals to keep food in your stomach; empty stomachs worsen nausea	Skip meals
Open windows to reduce strong smells	Stay in warm places; feeling hot induces nausea
Eat crackers, cereal, or pretzels before you get out of bed	Lie down after eating
Eat ginger & lemons/ lemonade to soothe your stomach	Eat spicy or fatty foods; they are hard to digest
Drink small amounts of fluid during the day	Forget to drink; dehydration worsens nausea
Take iron pills at bedtime	Let the condition go untreated

If your vomiting is severe or worsens throughout pregnancy, consult your doctor.

HEARTBURN

The hormone, progesterone, in pregnancy causes the valve between your stomach and esophagus to relax, which allows stomach acid to come back into the esophagus. It is typically most common during the third trimester because the uterus puts pressure on your intestines & stomach.

Tips to control heartburn:

- Eat small, frequent meals
- Eat yogurt or drink a glass of milk
- Eat slowly and chew enough
- Avoid spicy, rich, and caffeinated foods
- Avoid drinking during meals
- Sit upright after a meal

FOOD SAFETY DURING PREGNANCY

Proper food safety during pregnancy is important in preventing foodborne illnesses from different bacteria & parasites in foods, which can hurt your baby even if you don't feel sick.

DO NOT EAT...	BECAUSE IT MAY CONTAIN...
Raw seafood	Parasites or bacteria
Unpasteurized juice, cider, and milk	E.coli or Listeria
Soft cheeses	E.coli or Listeria
Undercooked eggs	Salmonella
Premade egg, pasta, & chicken salads	Listeria
Raw sprouts	E.coli or Salmonella
Cold hot dogs & luncheon meat	Listeria
Undercooked meat & poultry	E. coli, Salmonella, Campylobacter, Toxoplasma Gondii

What's the harm?

LISTERIA

Can cause:

- ◇ Miscarriage
- ◇ Premature birth
- ◇ Low birth weight babies
- ◇ Infant death

TOXOPLASMA GONDII

Can cause:

- ◇ Infant hearing loss
- ◇ Infant blindness
- ◇ Infant mental retardation
- ◇ Infant brain and eye problems

CLEAN



WASH HANDS AND SURFACES OFTEN

SEPARATE



SEPARATE RAW MEATS FROM OTHER FOODS



COOK



COOK TO THE RIGHT TEMPERATURE

CHILL



REFRIGERATE FOOD PROMPTLY

Safe Internal Cooking Temperatures

145°F	Beef, pork, veal and lamb steaks, roasts, chops, and fish
160°F	Eggs, ground beef, pork, veal, and lamb
165°F	Chicken, turkey, and duck

*Information from this page from: <http://wicworks.fns.usda.gov/wicworks/Topics/FoodSafetyBabyMe.jpg>

ALCOHOL AND PREGNANCY

Alcohol during pregnancy is NEVER safe!

Drinking any type of alcohol during pregnancy may cause your baby to have fetal alcohol syndrome (FAS).

FAS can cause:

Low birth weight babies

Infant feeding and sleeping problems

Behavioral problems

Attention & learning disorders

Lifelong medical problems



Drinking harms your baby

Everything you drink, your baby drinks. Drinking alcohol prevents your baby's growth and development and they can have lifelong physical and mental problems.

When should I stop drinking?

If you are trying to get pregnant, you should avoid alcohol because you may not know you are pregnant right away. Alcohol can hurt your baby at only 1 or 2 months pregnant.

Where can I get help if I can't stop drinking?

Always contact your doctor to see what options are best for you. Alcohol treatment programs and support groups, such as Alcoholics Anonymous (AA), are always available.

*Information from this page from: https://pubs.niaaa.nih.gov/publications/drinkingpregnancy_html/pregnancy.pdf

REFERENCES

- <http://americanpregnancy.org/pregnancy-health/pregnancy-nutrition>
- <http://www.eatright.org/resource/health/pregnancy/prenatal-wellness/healthy-weight-during-pregnancy>
- <http://my.clevelandclinic.org/health/articles/good-nutrition-during-pregnancy-for-you-and-your-baby>
- <http://www.acog.org/Patients/FAQs/Multiple-Pregnancy>
- <http://www.acog.org/Patients/FAQs/Nutrition-During-Pregnancy>
- <http://www.mottchildren.org/health-library/hw194870>
- <https://www.choosemyplate.gov/nutritional-needs-during-pregnancy>
- <http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/indepth/pregnancy-nutrition/art-20045082?pg=2>
- <http://www.marchofdimes.org/pregnancy/vitamins-and-other-nutrients-during-pregnancy.aspx>
- <http://www.marchofdimes.org/pregnancy/being-pregnant-with-twins-triplets-and-other-multiples.aspx>
- <http://www.uofmhealth.org/node/659636>
- https://www.cdc.gov/ncbddd/orders/pdfs/Folic%20Acid_QandA508.pdf
- <http://americanpregnancy.org/pregnancy-health/unusual-cravings-pica/>
- <http://www.marchofdimes.org/pregnancy/cravings-during-pregnancy.aspx>
- <http://www.med.umich.edu/1libr/Gyn/WHP/NauseaInPregnancy>
- <http://americanpregnancy.org/pregnancy-health/morning-sickness-during-pregnancy/>
- <http://americanpregnancy.org/pregnancy-health/heartburn-during-pregnancy/>
- Blumfield M. Pregnancy: Dietary Guidance for Pregnancy. *Encyclopedia of Food and Health*. 2016;472-483. <http://dx.doi.org/10.1016/B978-0-12-384947-2.00562-6>. Accessed February 4, 2017.
- Carlson SE, Colombo J, Gajewski BJ, et al. DHA supplementation and pregnancy outcomes. *The American Journal of Clinical Nutrition*. 2013;97(4):808-815. doi:10.3945/ajcn.112.050021. Accessed February 4, 2017.
- Farland LV, Rifas-Shiman SL, Gillman MW. Early Pregnancy Cravings, Dietary Intake, and Development of Abnormal Glucose Tolerance. *J Acad Nutr Diet*. 2015;115(12):1958-1964. doi:10.1016/j.jand.2015.04.018. Accessed February 4, 2017.
- Handiso YH. http://www.academicjournals.org/article/article1420620601_Handiso. *International Journal of Nutrition and Metabolism*. 2015;7(1):1-14. doi:10.5897/IJNAM2014.0162. Accessed February 4, 2017.
- Ho A, Flynn AC, Pasupathy D. Nutrition in pregnancy. *Obstetrics, Gynaecology & Reproductive Medicine*. 2016;26(9):259-264. doi:10.1016/j.ogrm.2016.06.005. Accessed February 4, 2017.
- Naumann CR, Zeliq C, Napolitano PG, KO CW. Nausea, vomiting, and heartburn in pregnancy: a prospective look at risk, treatment, and outcome. *J Matern Fetal Neonatal Med*. 2012;25(8):1488-1493. doi:10.3109/14767058.2011.644363. Accessed February 4, 2017.



Shayna Casadei, Dietetic Intern
Patient Food and Nutrition Services
300 N. Ingalls Street
NIB N18E20
Ann Arbor, MI 48109-5407
(734) 936-5197