Folic Acid Promotion and Monitoring in a Pregnancy and Parenting Program for Adolescents

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PURPOSE: To Reduce the Risk of Neural Tube Defects, Adolescents Should Consume at Least 400 µg of Folic Acid Daily

Folic Acid: Every Woman, Every Day

Folate, an essential micronutrient, is a water-soluble B vitamin. Folic Acid is the form of folate that is found in supplements and added to fortified foods. Folic acid is approximately twice as bioavailable as naturally occurring food folate.[1]

Everyone requires daily folate / folic acid. Folate helps create and maintain cells. This is especially important during periods of rapid cell division and tissue growth such as infancy and pregnancy.[3] Women of childbearing age can improve birth outcomes and decrease the risk of birth defects by ensuring adequate folic acid intake.

Daily consumption of folic acid prior to pregnancy reduces the risk of neural tube defects (NTDs) by 50-70%.[4] NTDs are serious birth defects of the spine (spina bifida) and brain (anencephaly).

It is recommended that women begin taking folic acid prior to pregnancy, during pregnancy and lactation.[3] In addition to a healthy, varied diet, women of childbearing age should consume 400 micrograms (µg) of synthetic folic acid every day.[2]

There are two ways to get 400 µg of synthetic folic acid daily:

- Eat one serving of a cereal that has 100% of the daily value (DV) of folic acid. Many cereals do not have enough folic acid, so it is important to read the nutrition label

OR

- Take a vitamin pill that has all of the folic acid you need every day.

Adolescence Is An Important Time For Folic Acid

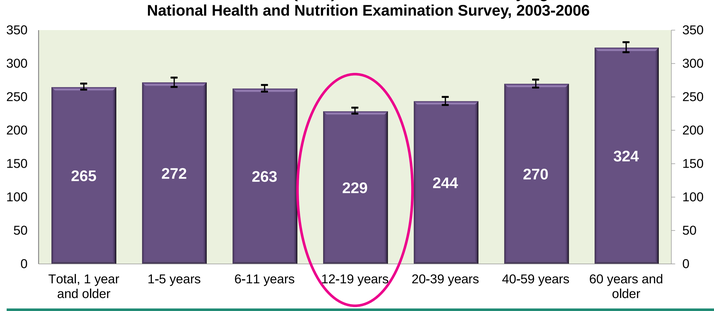
Adolescence is an important time to encourage folic acid intake because, overwhelmingly, pregnancies during this time are unplanned. Additionally, habits established during adolescence may continue throughout the lifecourse.

As adolescents rarely are planning to become pregnant, traditional folic acid messages about birth defects prevention may not be effective. Focusing on their interests, such as beauty and the overall health benefits of folic acid may be more effective. Benefits of healthy skin, hair and nails are of greater interest to adolescents than pregnancy planning. Making folic acid a part of their daily beauty regimen should be encouraged.

Adolescents' Blood Folate Levels

Teenage boys and girls have the lowest blood folate levels.[5]

Red Blood Cell (RBC) Folate Concentrations by Age
National Health and Nutrition Examination Survey, 2003-2006



California Adolescent Family Life Program (AFLP)

Using Title V funding, the Maternal, Child and Adolescent Health (MCAH) Division of the Center for Family Health, within the California Department of Public Health administers the California Adolescent Family Life Program (AFLP). This program addresses the consequences of adolescent pregnancy by providing comprehensive case management to pregnant and parenting teens, including nutrition guidance. This program serves as an excellent contact point for interconception counseling regarding folic acid consumption.

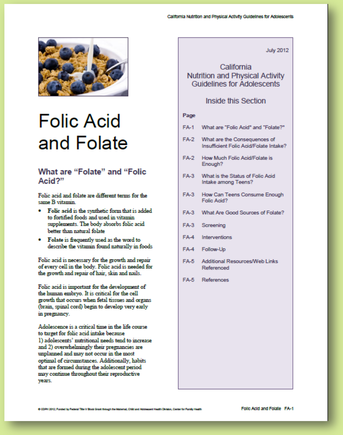
California Nutrition and Physical Activity Guidelines for Adolescents

These Guidelines were designed to assist Adolescent and Family Life Program (AFLP) case managers in improving the nutrition, physical activity, and healthy eating practices of AFLP clients. The Guidelines include several nutrition topics to serve as a reference for case managers working with teens, provide educational handouts and motivational tools. http://cdph.ca.gov/NUPA-MCAH

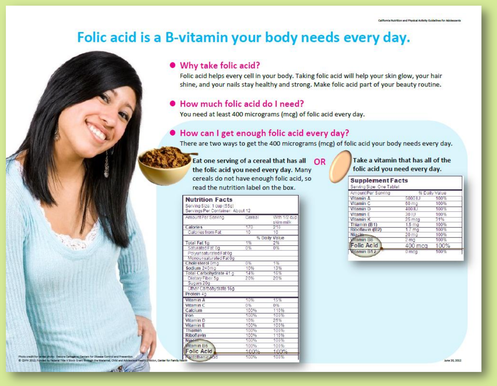
Folic Acid Guidelines

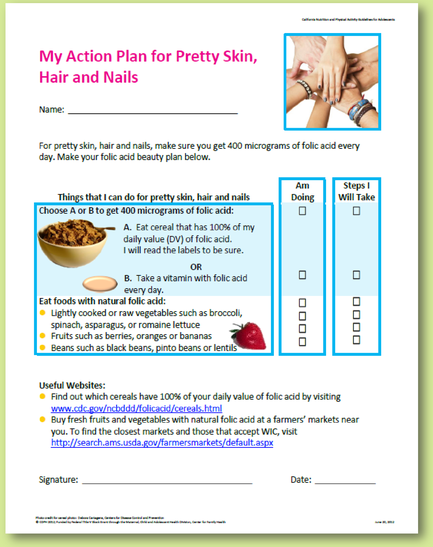
To engage pregnant and parenting teens, web-based folic acid guidelines were developed for the AFLP case management intervention. These new guidelines promoted folic acid as important for beauty and overall health without an emphasis on reproduction.

Guidelines include:
- What are "Folic Acid" and "Folate?"
- What are the Consequences of Insufficient Folic Acid/Folate Intake?
- How Much Folic Acid/Folate is Enough?
- What is the Status of Folic Acid Intake among Teens?
- How Can Teens Consume Enough Folic Acid?
- What Are Good Sources of Folate?
- Screening
- Interventions
- Follow-Up
- Additional Resources/Web Links Referenced
- References



Folic Acid Handouts

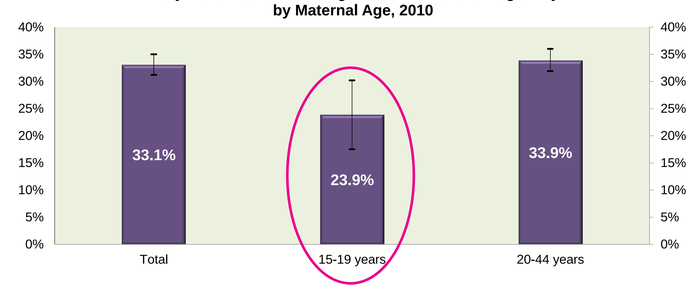




Adolescents Are Not Taking Folic Acid

According to the 2010 California Maternal and Infant Health Assessment Survey, fewer adolescents (23.9%, 95%CI 17.5-30.2) between 15-19 years of age with a recent live birth consumed a folic acid vitamin daily the month before pregnancy than women between 20-44 years of age (33.9%, 95%CI 31.9-36.0) .[6]

Daily Folic Acid Use During the Month Before Pregnancy by Maternal Age, 2010



Intervention Status

- Complementary preconception social marketing materials were used to target non-pregnant teens in California.
- The new Guidelines have been incorporated into all 37 AFLP programs that serve over 8,000 clients annually.
- MCAH will continue to monitor adolescent folic acid consumption.

Conclusion and Health Implications

- States should use Title V funds to incorporate folic acid interventions into existing programs to meet the needs of adolescents. Consider adding the folic acid topic to Title V funded life course interventions, e.g., adolescent, preconception, interconception and perinatal programs.
- States should regularly monitor folic acid use among teens.

Acknowledgements

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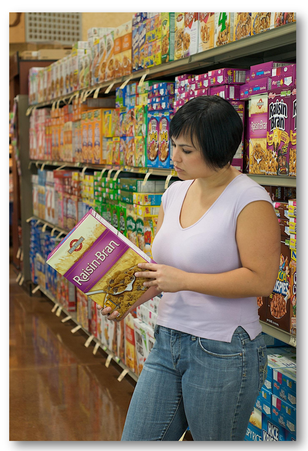

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