

Title: Folic Acid and Colon Polyps

Author: Wen-yu Vicky Haines

Date: September 12, 2008

Key words: folic acid, development of colorectal polyps

Abstract: Folic acid does not prevent further development of colorectal polyps after removal of recent polyps

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.

Folic Acid and Colon Polyps

Author: Wen-yu Vicky Haines

Date: September 12, 2008

Key words: folic acid, development of colorectal polyps


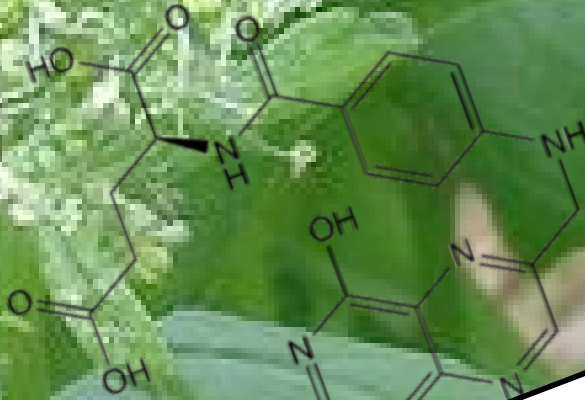
Abstract: Folic acid does not prevent further development of colorectal polyps after removal of recent polyps.




THIS DOCUMENT WAS CREATED BY A MEDICAL STUDENT ENROLLED IN THE PRIMARY CARE CLERKSHIP AT THE UNIVERSITY OF MINNESOTA MEDICAL SCHOOL AS PART OF THE COURSE PROJECT. THE AIM OF THE PROJECT IS TO PRESENT INFORMATION ON A MEDICAL TOPIC IN THE FORMAT OF A PATIENT EDUCATION HANDOUT. IT DOES NOT NECESSARILY REFLECT THE VIEWS OF THE UNIVERSITY OF MINNESOTA MEDICAL SCHOOL PHYSICIANS AND FACULTY. THESE MATERIALS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE IN NO WAY INTENDED TO TAKE THE PLACE OF THE ADVICE AND RECOMMENDATIONS OF YOUR PERSONAL HEALTH CARE PROVIDER. THE INFORMATION PROVIDED MAY NO LONGER BE UP TO DATE SINCE IT HAS NOT BEEN REVIEWED SINCE THE DATE OF CREATION. THE INFORMATION PROVIDED SHOULD NOT BE USED TO DIAGNOSE A HEALTH PROBLEM OR DISEASE, OR AS A MEANS OF DETERMINING TREATMENT. IN THE EVENT OF A MEDICAL EMERGENCY, IMMEDIATELY CONTACT A DOCTOR OR CALL 911.



WHAT IS FOLIC ACID?



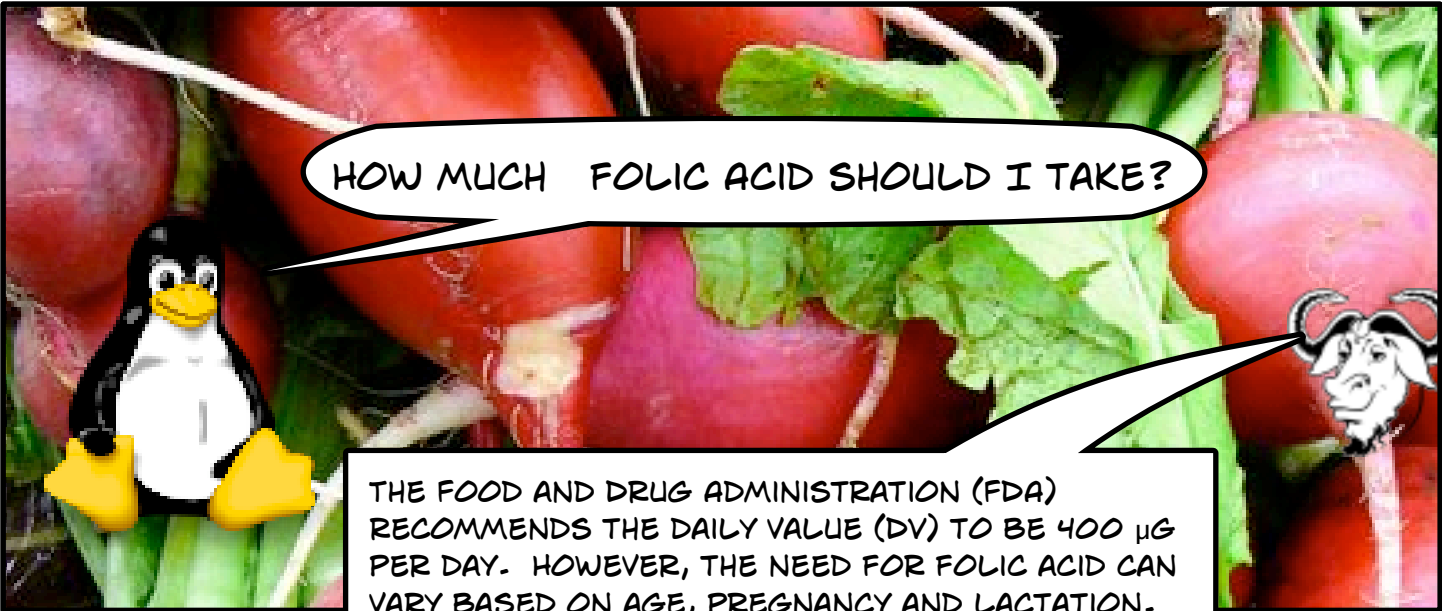
FOLIC ACID IS A WATER-SOLUBLE VITAMIN B ESSENTIAL FOR NUCLEOTIDE SYNTHESIS AND METHYLATION OF NEW CELLS IN OUR BODIES. IT CAN BE FOUND IN FOOD SUCH AS LEAFY-GREEN VEGETABLES, LEGUMES, CITRUS FRUIT AND LIVER. IN THE U.S., GRAIN PRODUCTS (E.G., CEREAL, BREAD, FLOUR, ETC.) ARE FORTIFIED WITH FOLIC ACID.



FOLIC ACID DEFICIENCY:

TOO LITTLE FOLIC ACID CAN CAUSE A TYPE OF ANEMIA. CHILDREN AND INFANTS WITHOUT SUFFICIENT FOLIC ACID CAN HAVE SLOWER OVERALL GROWTH RATE. PREGNANT WOMEN WITH FOLIC ACID DEFICIENCY CAN GIVE BIRTH TO NEONATES WITH VARIOUS BIRTH DEFECTS, IN PARTICULAR NEURAL TUBE DEFECTS. FURTHERMORE, EXCESSIVE ALCOHOL CONSUMPTION, MALABSORPTION AND LIVER DISEASES ALL INTERFERE WITH THE METABOLISM OF FOLIC ACID.

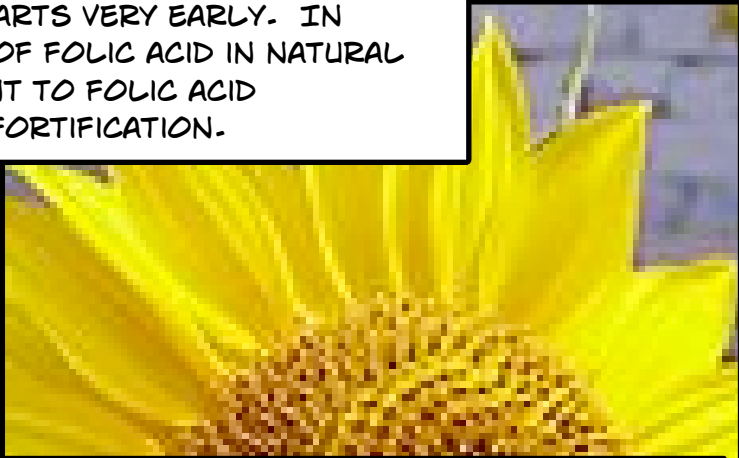
ALL IMAGES TAKEN FROM WIKIMEDIA COMMONS - A FREELY LICENSED MEDIA FILE REPOSITORY.



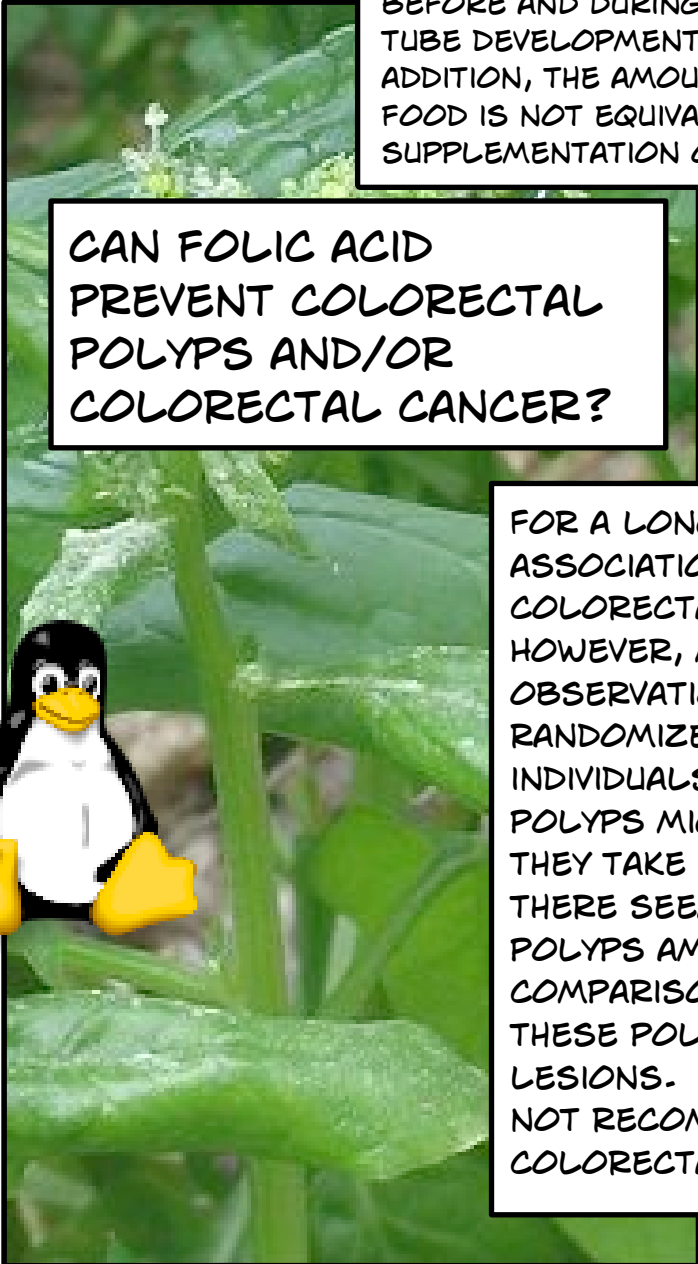
HOW MUCH FOLIC ACID SHOULD I TAKE?

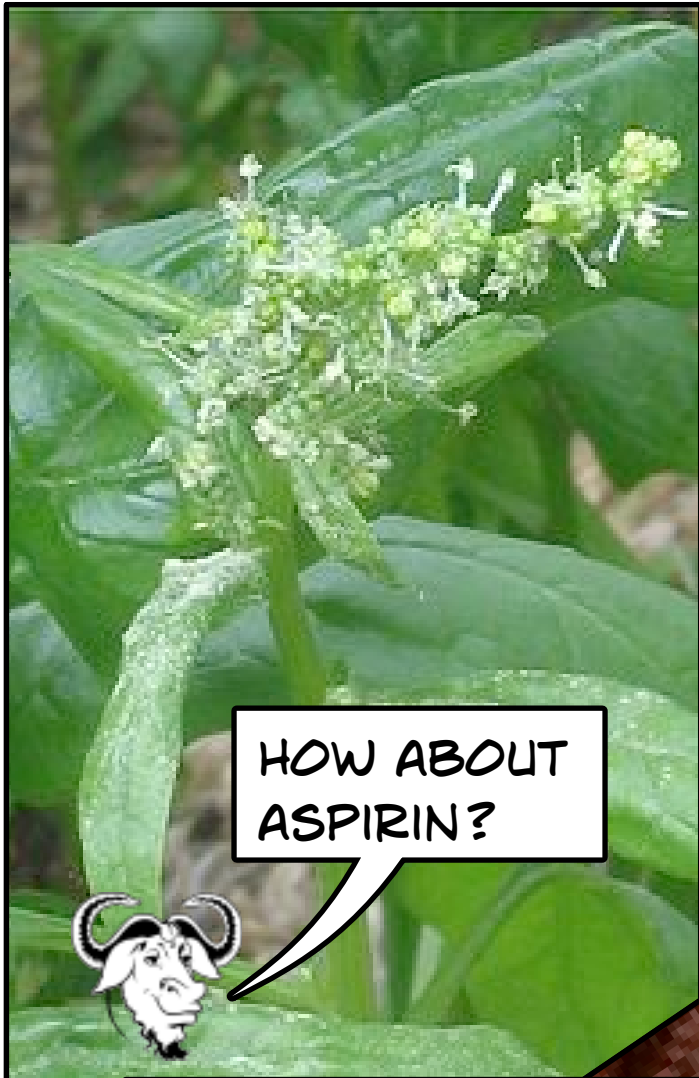
THE FOOD AND DRUG ADMINISTRATION (FDA) RECOMMENDS THE DAILY VALUE (DV) TO BE 400 μ G PER DAY. HOWEVER, THE NEED FOR FOLIC ACID CAN VARY BASED ON AGE, PREGNANCY AND LACTATION. FOR EXAMPLE, IT IS RECOMMENDED THAT WOMEN OF CHILD BEARING AGE CONSUME 400 μ G PER DAY BEFORE AND DURING PREGNANCY SINCE NEURAL TUBE DEVELOPMENT STARTS VERY EARLY. IN ADDITION, THE AMOUNT OF FOLIC ACID IN NATURAL FOOD IS NOT EQUIVALENT TO FOLIC ACID SUPPLEMENTATION OR FORTIFICATION.

CAN FOLIC ACID PREVENT COLORECTAL POLYPS AND/OR COLORECTAL CANCER?



FOR A LONG TIME, THERE SEEMED TO BE AN ASSOCIATION BETWEEN THE REDUCTION OF COLORECTAL CANCER AND FOLIC ACID INTAKE. HOWEVER, MOST OF THE DATA ARE BASED ON OBSERVATION STUDIES. RECENTLY, MULTI-CENTERED RANDOMIZED CLINICAL TRIALS REVEAL THAT INDIVIDUALS WHO HAVE A HISTORY OF COLORECTAL POLYPS MIGHT FURTHER DEVELOP MORE POLYPS WHEN THEY TAKE 1 MG FOLIC ACID PER DAY. IN PARTICULAR, THERE SEEMS TO BE AN INCREASE IN THE NUMBER OF POLYPS AMONG PARTICIPANTS WHO TAKE FOLIC ACID IN COMPARISON TO THE PLACEBO GROUP. MANY OF THESE POLYPS ARE THE SO-CALLED PRE-CANCER LESIONS. FOLIC ACID SUPPLEMENTS, THEREFORE, ARE NOT RECOMMENDED TO REDUCE THE RISK OF COLORECTAL CANCER.





HOW ABOUT ASPIRIN?



MANY RANDOMIZED CLINICAL TRIALS SHOW THAT ASPIRIN HAS SOME PROMISING POTENTIAL TO REDUCE COLORECTAL POLYP DEVELOPMENT IN ADDITION TO ITS CARDIOVASCULAR PROTECTIVE EFFECT. HOWEVER, THERE IS NO CONSISTENT DOSAGE OF ASPIRIN FOR THIS EFFECT AT THIS TIME.

