

An Occasional Medical Newsletter
from The Blood Care Foundation
Number 57

Dear Member,

There has been a great deal written over the past few years with regard to diet, health and disease prevention. I have recently come across a few gems. In the August 2nd 2004 number of the *Scientist* (2004;**18(15)**:25) I found a report on the benefits of eating various fruits. Resveratrol, found in grape skins and said to be the agent which reduces the risk of heart disease in those who drink red wine, has been shown to inhibit NF- κ B, the transcription factor which causes cell proliferation of cancer cells. It also sensitises cells to the action of TNF- α , which initiates cell death. Resveratrol could be used in future to enhance the effectiveness of chemotherapy as well as relieving arthritis and atherosclerosis. Anthocyanin, the pigment which colours the skin of blueberries, may revitalise age-dulled neuro-receptors and revive the brain's flagging communication system. It has long been postulated that cranberries can prevent urinary tract infections. Cranberries produce an unusual version of proanthocyanidin which will attach to uropathogenic *Escherichia coli*. Amy Howell and her colleagues at Rutgers University found that bacteria, when added to urine from women who had consumed cranberries, could not adhere to bladder cells. Researchers following up the 118,428 participants in the long-term Nurse's Health Study found that those who ate at least three or more servings of fruit a day had a 36% reduced incidence of maculopathy, an untreatable age-related degeneration of the macula leading to blindness, than those who ate less than one and a half portions. As a postscript to my last letter, one correspondent believes that the Atkins diet is a simple plagiarism of a pamphlet published in 1863 by the corpulent London undertaker William Banting. In his pamphlet he describes how he lost 46 pounds and 12 inches of girth by abstaining from most foods other than meat. Apparently the word "Banting" is used to mean dieting in some circles.

HIV in Injecting Drug Users in Asia.

In seven of the ten UNAIDS regions, injecting drug users sharing needles and syringes are considered one of the most important risk groups. In India and China, both countries only being a short airline flight from Bangkok, the number of people infected with HIV is estimated to increase from the current 6-10 million to 30-40 million by 2010. By this time it is expected that Asia will have outstripped Sub-Saharan Africa in absolute numbers of HIV carriers. New strategies are needed if this estimate is not to come true and governments must be persuaded to overcome the common but unwarranted fear that the expansion of drug policies to include pragmatic harm reduction strategies will conflict with the efforts to control the supply of and demand for illicit drugs. (National Intelligence Council. *The next wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India and China*. ICA 2002-4. www.fas.org/irp/nic/hiv-aids.html)

The Use of Blood Transfusion in Acute Coronary Syndrome.

It has long been established practice to transfuse patients with ischaemic heart disease who developed anaemia during hospitalisation. In a prospective cohort study, data from 24,112 subjects enrolled in three large international trials was analysed in all cases where blood transfusion was documented. Transfusion was found to be independently related to an increased risk of death at 30 days. The overall hazard ratio was 3.94 but this was increased when the pre-transfusion haematocrit was > 25%. The conclusion was blood transfusion in otherwise stable patients with acute coronary syndrome who acutely develop

anaemia whilst in hospital should be avoided whenever possible, especially when the haematocrit is over 25%. (*JAMA*. 2004;**292**:1555-62)

Multiple Sclerosis and Month of Birth.

In a review of 42,045 people living in Canada, Great Britain, Denmark and Sweden and suffering from multiple sclerosis (MS), Willer et al found that, compared to predictions, 8.5% fewer people with MS were born in November and 9.1% more in May. The correlation was greater in countries with the higher incidence of MS. No explanation as to why this occurs was offered. (*Brit.Med.J.* 2004;**330**:120-2)

Possible New Avenue for Malarial Vaccines.

Recent work has shown that by removing a critical gene, vital to the maturation pathway, from *Plasmodium sp*, the malarial parasite is no longer able to infect a mammalian host. When these altered forms of *Plasmodium sp* were injected into mice, the mice did not develop malaria but subsequently developed immunity against unmodified malarial parasite. This may well be a breakthrough in producing an effective malarial vaccine. (*Nature*. 2004;doi:10.1038/nature03188)

HRT and Stroke.

Bath and Gray performed a meta-analysis on 28 randomised controlled trials involving 39,769 participants who had been taking hormone replacement therapy (HRT). Rather than the anticipated reduction in the risk for strokes, they found that HRT significantly increased the risk. Further analysis showed that this increased risk covered all areas including total stroke, non-fatal stroke, strokes leading to death and ischaemic stroke. More worryingly, they found that, in women taking HRT, the outcome was more likely to be fatal. There was no association between HRT and transient ischaemic attacks and haemorrhagic stroke. (*Brit.Med.J.* 2005;**330**:342-5)

Cutaneous Leishmaniasis.

A survey, conducted by the Hospital for Tropical Diseases, London, England, has shown that people back-packing in Latin America are increasingly becoming infected with Cutaneous Leishmaniasis. Between 1995 and 2003 the number of cases rose from four per year to 18 per year, while the number of travellers to Latin America increased 3.5 fold. Most infections were acquired in Bolivia, Columbia and Belize (*QJM*. 2004;**97**:781-8)

Folic Acid and Pregnancy.

For as long as I have been in medicine, it has been routine practice to prescribe folic acid during pregnancy. Recently, there has been pressure to fortify food with folic acid following the Canadian experience, reported in Newsletter No: 55, where the incidence of spina bifida was reduced five fold following the introduction of routine addition of folic acid to flour, pasta and cornmeal. Now a word of caution has been raised by Deborah Charles and colleagues who followed 2928 women who had taken part in a randomised trial of low and high folate supplements whilst pregnant during the 1960's. They found that, those women who took high doses of folate throughout pregnancy were twice as likely to die of breast cancer in later life than those in the other groups. The authors point out that this could well be a chance finding so further studies should examine any association between folate supplementation and the risk of breast cancer. (*Brit.Med.J.* 2004;**329**:1375-6)

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