



## Calcium Supplements Effects on the Heart

1.

**Can you please explain the adverse effect of calcium supplement on the heart?**

Question submitted by:  
**Dr. Mamin S. Lee-Sing**  
Regina, Saskatchewan

Calcium supplementation was thought to be protective against cardiovascular disease by increasing the HDL to LDL ratio. However, the cardiovascular protective effect of calcium supplementation was challenged by a New Zealand study published in BMJ in Jan 2008.<sup>1</sup> In this study, the authors performed secondary analysis among 1,471 healthy postmenopausal women, mean age 74, who had previously taken part in a randomized study to assess the effect of calcium on bone density and fracture rates. The researchers found no difference between groups in the number of women experiencing any cardiovascular event (angina, chest pain, MI, or sudden death). However, myocardial infarction (MI) was twice as common and was statistically significant among the calcium group when compared with the placebo group (45 events in 31 women taking calcium versus 19 in 14 in the placebo group,  $P=0.01$ ). The author noted that these results

are not conclusive, but finding an adverse trend in vascular events with calcium supplementation is not necessarily surprising. Calcium supplements acutely elevate serum calcium levels, possibly accelerating vascular calcification, which is predictive of vascular event rates. Weaknesses of the study included its small size for a study with cardiovascular endpoints. The cohort comprised elderly (10% over 80 at baseline) and white women, so that the results may not be generalizable to other ages and racial groups. The findings of MI risk for older women taking high doses of calcium (one gram a day) are not definitive and should be balanced against the benefits for bone health.

### Reference

1. Bolland M et al. "Vascular Events in Healthy Older Women Receiving Calcium Supplementation: Randomized Controlled Trial" BMJ Online First 2008; DOI: 10.1136/bmj.39440.525752.BE.

Answered by:  
**Dr. Chi-Ming Chow**

## Vitamin A Usage for Acne

2.

**What are the indications for Vitamin A per OS for Acne?**

Question submitted by:  
**Dr. Monique, Bourbeau**  
Boucherville QC

Pure Vitamin A used to be used for acne but met with a relatively high incidence of hepatic side effects. Now Vitamin A derivatives are used, such as isotretinoin to lessen this risk. They are primarily used in nodulocystic acne. We

suggest the use of oral retinoids in any case where scarring seems likely to occur as a result of acne.

Answered by:  
**Dr. Scott Murray**



## White Blood Cell Count in Obese Patients

3.

**Is there a trend towards higher WBCs in obese patients (*i.e.*, 12 to 15 WBCs)? When is it a concern?**

Question submitted by:

**Dr. J. Mitchell**

**Saskatoon, Saskatchewan**

Yes, there is a trend toward higher WBC's (leukocytosis) in obese patients. Several studies (Herishanu Y et al. 2006, Schwartz J and Weiss ST 1991, and Nanji AA and Freeman JB 1985) have confirmed this phenomenon of physiologic leukocytosis based on an increase in BMI. It is still important to rule out other potential causes of leukocytosis such as infections, underlying inflammatory conditions, exposures to various medications and smoking. An underlying hematologic malignancy should also be considered. Further investigations should be directed by clinical abnormalities that are not explained by the underlying obesity such as finding an enlarged spleen.

### Resources

1. Herishanu Y et al. Eur J Haematol. 2006 Jun; 76(6):516-20.
2. Schwartz J and Weiss ST. Am J Epidemiol, 1991 Dec 15;134(12):1402-9.
3. Nanji AA and Freeman JB. Am J Clin Pathol. 1985 Sep; 84(3):346-7.

Answered by:

**Dr. Cyrus Hsia and  
Dr. Kang Howson-Jan**



## Infant Upper Respiratory Infection

4.

**Is there any evidence based medicine that shows that 'vaporizers' work for infant upper respiratory infection (URIs)?**

Question submitted by:

**Dr. Norm Blusteint**  
**Richmond Hill, Ontario**

The short answer is “no,” which is not to say that vaporizers do not provide symptomatic relief, rather that this has not been studied much. While not wanting to be nihilistic, studies in the condition for which vaporizers have been most commonly used historically such as croup, have not been sanguine. The two studies that have been done to date have not shown any difference in objective scores between children treated with vaporizers and those who were not. That being said, the use of a vaporizer may provide symptomatic relief for dry mucous membranes (not an end point studied to date) and may also provide a sense of well being for children and their families. The caveat to this is that the vaporizer should be used to provide a mist, and devices such as croup tents, which block access to viewing the child, should not be used. Thus, a cool mist vaporizer could be used if children feel better when a mist is provided.

Answered by:

**Dr. Michael Rieder**



## Iron Supplementation

5.

**Is iron supplementation necessary in a patient with normal hemoglobin but a low ferritin level?**

Question submitted by:

**Dr. Rashan Dheda**

**Bradford, Ontario**

This patient has biochemical iron deficiency that some refer to as an iron depleted state. It usually precedes the appearance of microcytosis and iron deficiency anemia. The management is identical to any case of iron deficiency anemia. Hence, it is still essential to determine the cause of low iron stores just as in iron deficiency anemia. We, however,

would advise clinicians to be cautious with iron replacement in older patients with hemoglobin in the high to normal range, as replacement may unmask an underlying polycythemia rubra vera.

Answered by:

**Dr. Michael Rieder**

## Monitoring Gallbladder Polyp

6.

**If a gallbladder polyp has not grown over one year, does it still need to be monitored?**

Question submitted by:

**Dr. Judith Bus**

**Vancouver, British Columbia**

Gallbladder polyps are outgrowths of the mucosal wall usually found incidentally on ultrasound. They have been observed in 1.5 to 4.5% of gallbladders assessed by ultrasonography. Gallbladder polyps are often asymptomatic but can be associated with biliary pain. The clinical significance relates largely to their malignant potential. The most useful predictive feature for malignancy is the size of the polyp. Polyps larger than 2 cm are almost always malignant. Polyps of 1 cm to 2 cm in size are possibly malignant. The only effective treatment for either of these situations is cholecystectomy. If a patient has gallbladder

polyps and concomitant gallstones a cholecystectomy is indicated. Cholecystectomy should also be recommended for patients who have biliary colic or pancreatitis in the setting of cholesterosis. Lesions less than 1 cm in diameter usually represent cholesterosis. Patients can be followed yearly if the polyp is stable and between 5 mm and 1 cm. Follow-up examinations for polyps smaller than 5 mm are not necessary if the polyp is stable on a subsequent ultrasound.

Answered by:

**Dr. Jerry S. McGrath**

7.

## Persistent Rosacea Treatment

**What is the best OTC medication/cream for patients suffering from persistent rosacea (patient can recall having this long-term disease for more than five years)?**

Question submitted by:

***Dr. Janna Bentley  
Kelowna, British  
Columbia***

The topical antibiotic metronidazole is currently the most used topical agent for chronic rosacea. It is available in both creams and gels and in one preparation, it is combined with sunscreens. Response can be relatively slow and patience is encouraged. Best results are achieved with avoidance of common triggers such as alcohol, hot temperatures and spicy foods.

Answered by:

***Dr. Scott Murray***



## Recovery from Schizophrenia

8.

**The term recovery is being used in Psychiatry. What percent of schizophrenics "recover" enough to live typical lives jobs, families and independence?**

Question Submitted by:  
**Dr. Pam McDermott**  
Huntsville, Ontario

While the formal definition of recovery might be 'a return to a normal state of health, mind, or strength', in psychiatry, the term recovery implies that 'the patient is taking an active role in the development of new meaning and purpose, while growing beyond the misfortune of the mental illness.'<sup>1</sup> Therefore, in addition to being an outcome measure, the term more broadly refers to the individual's ability to regain a role in society despite a certain level of symptoms.<sup>2</sup> Recent research suggests that a substantial proportion of people with schizophrenia have the ability with proper interventions to recover completely and that many more will regain social functioning. A meta-analysis of over 100 outcomes in studies of schizophrenia conducted in the developed world throughout the 20th century, found a substantial rate of recovery from the disease throughout the century. Specifically, it found a 20% complete recovery and 40% social recovery (which included those with complete recovery). Interestingly, these rates were significantly lower during the Great Depression and did not improve significantly with the introduction of antipsychotic medication in 1954.<sup>3</sup> Other recent studies have found rates of recovery in the developed world to be between 17 to 25%.<sup>4</sup> A lesson that may be drawn from these observations is that bad outcomes may not be a necessary component of the natural

course of the disease, but instead may be a consequence of the interaction between the individual and his or her socio-cultural and economic world and the medical system.<sup>4</sup> In order to account for the vast differences in recovery rates between the developed and developing countries, the authors of the Hopper et al. study have hypothesized the following:

- greater employment in developing countries secondary to the freedom from the economic disincentives that can accompany the provision of disability benefits in the industrial world
- increased family involvement and support
- decreased criticism and demands placed on the individual by family members
- social inclusions

Thus, it seems that the key principles in the model for recovery from schizophrenia include maintaining optimism and hope, allowing for emotional healing, self-empowerment, having access to employment, and interpersonal support. At the time of diagnosis, it is critical to help individuals and their families understand this concept of recovery, the steps that can be taken to facilitate recovery, and the probability of achieving recovery as additional and

unnecessary suffering may occur if the traditional perception of poor prognosis with negative outcomes is communicated. As clinicians, we can be dispensers of HOPE. (Healthy Outcomes on Patient Encounters)

References:

1. Van Os J, Kapur S. Schizophrenia. Lancet 2009; 374(9690):635-45.
2. Faerden A, Nesvag R, Marder SR. Definitions of the Term 'Recovered' in Schizophrenia and Other Disorders. Psychopathology 2008; 41(5):271-8.
3. McGurk SR, Mueser KT, DeRosa TJ, Wolfe R. Work, Recovery and Comorbidity in Schizophrenia: A Randomized Controlled Trial of Cognitive Remediation. Schizophr Bull 2009; 35(2):319-35.
4. Warner R. Recovery From Schizophrenia and the Recovery Model. Curr Opin Psychiatry 2009; 22(4):374-80.
5. Hopper K, Harrison G, Janca A, Sartorius N. Recovery from Schizophrenia: An International Perspective. A Report of the WHO Collaborative Project. The International Study of Schizophrenia. Oxford: Oxford University Press: 2007.

Answered by:

**Professor Joel Lamoure**

**Contributor: Ms. Jessica Stovel**



## Aspirin for Prevention of Cardiac Events

9.

### Is aspirin indicated for primary prevention of cardiac events?

Question submitted by:

**Dr. Atma Persad**  
Creston British Columbia

While aspirin use among patients with a history of myocardial infarctions and strokes typically corresponds to an absolute reduction of 1% to 2% in the yearly incidence of nonfatal cardiovascular events, the use of aspirin in an apparently disease-free population is more controversial. There should be good scientific evidence that benefits exceed risks by an appropriate margin before we recommend long-term aspirin use for primary

prevention. Each patient's CV risk (using Framingham risk calculator or the Reynolds risk score) should be assessed against the risk of bleeding while on aspirin.

In my own personal practice, I would consider use of aspirin for primary CV prevention when the estimated 10-year CV risk is 20% or above.

Answered by:

**Dr. Chi-Ming Chow**

## Anti-Viral Medication For Contact with Herpes

10.

### Are there any studies on the use of anti-viral medications after contact with a person with known herpes (prophylactic)?

Question submitted by:

**Dr. Roland Tremblay**  
Cornwall, Ontario

Prophylactic treatment after exposure to Herpes Simplex Virus (HSV) has never been studied formally in any type of trial. Given our experience with post-exposure prophylaxis (PEP) after contact with HIV, there is at least some theoretical rationale for this approach. However, most data with PEP for other viral illnesses involves the administration of a passive and/or active immunizing agent such as vaccine or immunoglobulin. This has been studied with Hepatitis A and B, Varicella Zoster virus, and rabies. It is theoretically less likely to be successful in eradicating infection for intracellular viruses known to routinely establish lifelong infection despite an adequate immune response. A clinical study would be nearly impossible to perform given the difficulty of establishing

whether contact with the virus has occurred and given the very high prevalence of prior infection (based on serology) with HSV among sexually active adults and the complications related to the presence of two viral subtypes. Further cynicism may be warranted if one considers the very partial success of experimental HSV vaccines in preventing infection. In summary, although anti-HSV medications are generally quite benign, there is no data on dose or timing, which might be beneficial if they are used for PEP.

Answered by:

**Dr. Michael Libman**



11.

## Breastfeeding as a Contraceptive

### What is the effectiveness of breastfeeding as a contraceptive method?

Question submitted by:

**Dr. Antonio Bianchini**  
**St Laurent, Quebec**

Breastfeeding (BF) prevents ovulation due to the inhibitory effects of prolactin on gonadotropin releasing hormone from the hypothalamus. BF intensity, the nutritional status of the mother and her body mass index impact on the degree that BF inhibits ovulation. BF can be an effective method for contraception under certain conditions. Namely, the woman is less than six months post partum, she is breastfeeding exclusively such that no supplemental food or liquid is supplied to her infant, and she is amenorrheic. Under these circumstances she has 98% protection against pregnancy. If these conditions are not met then ovulation may occur and unintended pregnancy result. Thus, another form of contraception should be used as a back up.

*cme*

Answered by:

**Dr. Cathy Popadiuk**