# CONSULTANT'S CORNER

*Practical Answers To Your Everyday Questions*

**This month—10 Answers:**



## 1. Hot flash health

**Menopausal women often want to use "natural" progesterone from health food stores or naturopaths for hot flashes. Are there any risks or benefits from these products?**

Question submitted by:
Carl Mackie, MD
Guelph, Ontario

Several treatments for hot flashes have demonstrated efficacy:

- Synthetic progesterones (medroxyprogesterone), by prescription only, reduce hot flashes, but are associated with depressed mood and altered lipid profile and carbohydrate metabolism.
- So-called "natural" progesterone, also prescription only, has fewer adverse effects with little change in mood, lipid or carbohydrate profile. Side-effects of dizziness, fatigue and sedation can be minimized by taking the medication at bedtime.
- Alternative treatments demonstrating effectiveness in clinical trials include black cohosh, soy and exercise. Adverse effects of these treatments are minimal. Black cohosh is contraindicated in pregnancy, lactation and in women with estrogen-dependent tumours.



Answered by:
Jim Owen, PhD
Associate Professor
Psychiatry and Pharmacology and Toxicology
Queen's University
Director, Psychopharmacology Lab
Providence Community Care Centre, Mental Health Services
Kingston, Ontario.

# 2. Tapeworm rumours

## Have you ever seen the use of self-induced ingestion of a tapeworm as a means of controlling weight in a teenage girl?

Question submitted by:
Eugene G. Nurse, MD
Dartmouth, Nova Scotia

Eating disorders are increasing in the community, as even younger girls (grades three to six) would like to be thinner. Mainly girls from middle to upper class families or from high-performance sports are at greater risk of developing an eating disorder.

This population is using many ways to control their weight:

- Diet is used mainly as a way to control their weight in restrictive anorexia.
- Bulimia involves different weight-control methods, such as dieting, vomiting, sweating, fluid restriction or polydipsia, exercising, laxatives, diuretics, ipeca syrup, diet pills, psycho stimulants and even cigarette smoking.

No report on the use of self-induced tapeworm as a means of weight control has been reported.

The tapeworm is rare in developed countries and more prevalent in some parts of Asia, Latin America and Africa, where anorexia nervosa is less prevalent.

Anorexia nervosa is more common in perfectionists and obsessive girls who are trying to find some control in their lives. For these girls, it is nonsensical to put a foreign body that creates revulsion and disgust inside themselves. Doing so would also cause them to lose the desired control of their own body.

Bulimic girls are using more external means of controlling their weight, but no live-animal use has been reported.

There is an association of eating disorders in inflammatory bowel disease (IBD). Some patients who are lactose intolerant often induce diarrhea through ingestion of milk or milk products. The eating disorder may develop prior to the IBD or may coexist with it and is problematic to the treatment of the bowel disease.

Answered by:
Carmen Beauregard, MD, FRCPC
Assistant Professor
Université de Sherbrooke
Sherbrooke, Quebec

# 3. Genital warts and the GP

## What is the best treatment for genital warts in both men and women in the GP's office?

Question submitted by:
Zaharo Katsios, MD
London, Ontario

Typical genital warts or condyloma accuminata on a mucosal or semi-mucosal surface usually respond well to treatment of podophyllin 25%, once weekly. It should be applied with a cotton-tip applicator to the warts and left on for four hours initially, increasing weekly up to six hours, depending on response.

Inflammation lasting a few days is normal. Larger warts on nonmucosal genital skin respond better to cryotherapy applied with spray or a cotton-tip applicator every two weeks until clear.

Answered by:
Elizabeth O'Brien, MD, FRCPC
Associate Professor
Faculty of Medicine
McGill University
Staff Dermatologist
Montreal General Hospital
Montreal, Quebec

# 4. What's best for treating depression?

## What is the evidence that cognitive behaviour therapy or antidepressent medication is better for treating depression?

Question submitted by:
Graham E. White, MD
Parksville, British Columbia

Although any single study might find one of these treatments superior to the other, reviews of the literature as a whole suggest both antidepressants and medication work equally well and are both excellent first-line choices.

Predicting exactly who will respond to each treatment is not yet possible, though patient preference should be considered.

As severity and chronicity of depression increases, a clinician ought to consider a combination of antidepressants and cognitive behaviour therapy.

Answered by:
Randi McCabe, PhD
Assistant Professor & Chair
Clinical Behavioural Sciences Programme
Department of Psychiatry & Behavioural Neurosciences
McMaster University
Hamilton, Ontario

Peter J. Bieling, PhD
Associate Professor
Department of Psychiatry and Behavioural Neurosciences
McMaster University
Manager
Mood, Anxiety and Women's Health Concerns Clinic
Psychologist
St. Joseph's Healthcare
Hamilton, Ontario

# Caring for Crohn's disease

## 5. Is there a role for immunomodulators as first-line therapy in the management of Crohn's disease?

Question submitted by:
Mohamed I. Ravalia, MD
Twillingate, Newfoundland

One of the main therapeutic goals of Crohn's disease (CD) is the minimization of corticosteroid exposure.

Consequently, patients with severe colonic disease, likely to have frequent relapses or difficulty discontinuing steroids, may be considered for early therapy with immunomodulators, such as 6-mercaptopurine (6-MP), azathioprine or methotrexate. Such a strategy may facilitate induction and maintenance of remission, reducing long-term steroid requirements.

In a group of newly diagnosed pediatric CD patients, Markowitz *et al.* showed that 6-MP and a course of prednisone provided superior 18-month remission rates than a course of prednisone alone,[1] suggesting that early immunosuppression may, in fact, alter the natural history of CD in this patient group.[2]

The optimal role of immunomodulators for CD remains unclear. However, there is good rationale and some data to support first-line therapy for select patients, particularly those with severe colonic disease.

References
1. Markowitz J, Grancher K, Kohn N, *et al*: Multicenter trial of 6-mercaptopurine and prednisone in children with newly diagnosed Crohn's disease. Gastroenterology 2000; 119(4):895-902.
2. Seidman EG: 6-Mercaptopurine in maintaining remission in Crohn's disease: An old friend becomes a new hero. Gastroenterology 2000; 119(4):1158-64.

Answered by:
Mark R. Borgaonkar, MD, MSc, FRCPC
Assistant Professor of Medicine
Memorial University of Newfoundland
Staff Gastroenterologist
Health Sciences Centre
St. John's, Newfoundland

# 6. Hair loss help

**What are the causes and treatments of hair loss (or thinning) in young adults? Besides stress and lack of vitamins, what preventative measures are there?**

Question submitted by:
Irene D'Souza, MD
Willowdale, Ontario

The most common type of hair loss is telogen effluvium, the temporary hair shedding related to stress, surgery, medications, illnesses or occurring postpartum.

Alopecia areata, autoimmune hair loss, is common in children and sometimes needs medical intervention.

Androgenetic hair loss is the hormonally related hair loss usually seen with a familial genetic pattern. Sometimes, we see young people with hair loss due to pulling, twirling or traction from severe hair styles. This should be easily corrected.

The best prevention for hair loss is to keep your health generally good and stable, minimize stress and see your physician when hair loss occurs to determine if correctable measures are available.

Answered by:
Scott Murray, MD, FRCP(C)
Associate Professor
Dalhousie University
Halifax, Nova Scotia

# 7. How should thyroid nodules be investigated?

## How should thyroid nodules be investigated and followed? When is the right time to worry?

Question submitted by:
Mary E. Comerton, MD
Ottawa, Ontario

Thyroid nodules are often encountered in clinical practice. Though most are benign lesions, about 5% may actually represent thyroid cancer.

It is important to determine whether the nodule is hyperfunctioning or malignant. Risks for cancer include age over 40, exposure to head and neck with radiation, family history, hoarse voice and enlarged neck nodes on physical exam.

Measurement of thyroid-stimulating hormone (TSH) level is helpful, as suppression suggests a nodule is hyperfunctioning.

Hyperfunctioning solitary nodules carry a low risk of malignancy.

In the absence of TSH suppression, biopsy by fine-needle aspiration should be first-line investigation for a solitary nodule or a dominant nodule in a multinodular goiter. If cancerous, nodules need evaluation by an endocrinologist.

Ultrasonography is commonly used to assess thyroid structure and follow-up on thyroid nodules. Although some ultrasonographic features, such as punctate calcification and irregular or blurred margins, suggest papillary carcinoma, routine ultrasonographic studies rarely aid clinical decision-making.

Thyroid nodules are found incidentally during ultrasound of the neck for reasons unrelated to the thyroid gland. These "thyroid incidentalomas" are, in general, < 1 cm to 1.5 cm in diameter and nonpalpable. They often pose a management problem for the clinician. However, because most of these nodules are benign, observation alone is recommended for those < 1.5 cm, unless other features suggest malignancy.

Despite early suggestions that nodules in multinodular goiters are less likely to be malignant, more recent studies show the risk of malignancy in a dominant nodule in this condition is similar to that in a solitary nodule.

Thyroxine suppressive therapy may be used to treat benign nodules. Given increased risk of cardiac arrhythmia and evidence that subclinical hyperthyroidism can lead to loss of bone mass in post-menopausal women, TSH suppression should be used cautiously in older patients.

Answered by:
M. Usman Chaudhry, MD, FACE, FRCPC
Staff Endocrinologist
Moncton Hospital
Moncton, New Brunswick

# 8. Puzzled over protein

## How much protein do you recommend for healthy adults and adolescents? What is a good protein source?

Question submitted by:
Jan-Martin Albers, MD
Toronto, Ontario

I would recommend about 0.8 g to 1.0 g of protein per kilogram of body weight. However, inadequate protein intake is not a major concern in Canada, as most people eat 50% more than this. Those who are most at risk of low protein intake are the elderly.

Many foods are good sources of protein. Everyone knows that meats and fish are complete sources of protein, as well as eggs, milk, cheese and yogurt. However, some of these foods can contain a lot of saturated fat, which can be avoided by using vegetable sources of protein. Vegetable proteins are not quite as high quality as meats if consumed alone, but we hardly ever do that.

Appropriate mixtures of complementary vegetable proteins result in a high-quality protein source. Examples of complementary proteins are nuts and grains (*e.g.*, peanut butter sandwhich), legumes and grains (*e.g.*, falafal—chick peas and bread; tofu stir fry with rice; beans and rice) or grains with a small amount of dairy (*e.g.*, cheese pizza, macaroni and cheese or breakfast cereal and milk).

Answered by:
Thomas Wolever, PhD
Professor
University of Toronto
Staff
St. Michael's Hospital
Toronto, Ontario

# 9. Wondering about warts, corns and calluses

## What is the histologic difference between a wart, a corn and a callus on the plantar surface?

Question submitted by:
Richard J. Lewis, MD
Kamloops, British Columbia

Histologic examination of a plantar wart reveals interesting changes in the epidermis.

The wart itself is usually covered with a thick callus. The cytoplasm of many cells contains irregular, large homogeneous eosinophilic "inclusions" that represent the abundance of keratohyalin.

Numerous eosinophilic granules are visible in the lower epidermis that coalesce to form larger "inclusion bodies."

Also visible in the lower epidermis are vacuolated nuclei. As they migrate up through the epidermis, the cells show deeply basophilic nuclei that are surrounded by a clear zone. Under electron microscopy, the deeply basophilic nuclei are shown to contain human papillomavirus viral particles. A true granular layer does not exist. Instead, the intracytoplasmic material in the altered cells merges with the keratin formed by more normal cells. The nuclei in the altered cells persist into the stratum corneum layer.

When regressing, deep palmoplantar warts show a mononuclear cell infiltrate, suggestive of a cell-mediated immune response and subsequent thrombosis of dermal vessels. This results in hemorrhage, degeneration and necrosis of epidermal cells.

Histologic examination of a corn does not reveal the cellular and architectural abnormalities seen with plantar warts.

A corn is characterized by the presence of a deep hyperkeratotic pit. There is a thick parakeratotic pit in an endophytic cup-shaped tumour.

The spinous and granular layers are decreased. Stratum corneum accumulates and may lead to the formation of a central keratin plug that can press painfully into the papillary dermis. Clinically, the absence of capillary dotting after paring and the presence of a central core distinguishes corns from plantar warts.

Histologic examination of a callus shows marked thickening of the epidermis, particularly in the stratum corneum layer, reflecting the increased rate of epidermal cell production.

Answered by:
John Kraft, BSc
Third-year medical student
University of Toronto
Toronto, Ontario

Carrie Lynde, BSc
Third-year law student
University of Western Ontario
London, Ontario

Charles Lynde, MD, FRCP(C)
Dermatologist
Toronto, Ontario

# What's causing this elevated CPK?

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## I have several diabetic patients with elevated CPK. Is this related to diabetes or should I look for another cause?

Question submitted by:
Andrea Stern, MD
Toronto, Ontario

Diabetes *per se* does not elevate creatinine phosphokinase (CPK); however, an elevated CPK in an otherwise asymptomatic patient with Type 2 diabetes is not an uncommon finding.

In my view, the most common explanation for an elevated CPK is the concurrent use of lipid-lowering agents (mostly statins, but fibrates can also do this).

However, an elevated CPK in an asymptomatic patient taking lipid-lowering medication is not an indication to discontinue the medication. Values up to three times (and maybe six times) the upper limit of normal can be simply followed. There is often no association between muscle symptoms and CPK levels, even in symptomatic patients. There is no evidence elevated CPK in this setting is associated with chronic muscle wasting.

If your patient has diabetes and is not taking a statin or fibrate, consider other causes of an elevated CPK.

Underlying, relatively silent, coronary artery disease is not uncommon in middle-aged, patients with diabetes, so it may be worthwhile getting a troponin and exercise stress test if you have reason to suspect this to be the case. Furthermore, documenting coronary artery disease may make it easier to convince the patient to opt for more aggressive lipid, blood pressure and glycemic control.

Another possibility to exclude is mild hypothyroidism, which is more common in patients with diabetes and can cause mild elevations in CPK. A thyroid-stimulating hormone determination would be useful in this regard.

Elevated CPK levels have also been reported in diabetic patients with the nephrotic syndrome and can also be seen in a relatively rare condition of diabetic amyotrophy where there is proximal muscle wasting.

The wasting and weakness, particularly in the lower limbs, is usually a very prominent symptom. Mild elevation in CPK has been reported in the general population, possibly due to viral illnesses, fibromyalgia, *etc.*

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Answered by:
Liam J. Murphy, MB, BS, FRACP, FRCPC
Professor, Internal Medicine & Physiology
Head, Diabetes Research Group
University of Manitoba
Winnipeg, Manitoba