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### How effective are smoking cessation therapies?

A review of studies measuring the success of smoking cessation drugs and nicotine replacement therapies has confirmed their effectiveness. The analysis of 70 published reports of 69 studies involving almost 33,000 patients was conducted by a Montreal research team headed by Dr. Mark Eisenberg from the cardiology and epidemiology divisions of McGill University. The analysis of these trials found 6 of the 7 approaches to be effective. Varenicline (Champix), bupropion (Zyban), and nicotine patches, gum, nasal spray and tablets were about twice as effective as a placebo in helping smokers to quit. In studies that compared the newly approved drug varenicline against bupropion, varenicline was found to be superior. However, despite the proven effectiveness of these approaches, none provides outstanding results over the long term. The researchers noted that in most of the studies evaluated, the abstinence rates at one year were well under 30%.




### Risk of fractures from proton pump inhibitors

Proton pump inhibitors — a class of drugs commonly prescribed to treat acid reflux and peptic ulcers — can cause osteoporosis-related fractures if used for several years, according to a Winnipeg study. Researchers from the University of Manitoba used provincial medicare data gathered between 1996 and 2004 to identify Manitoba residents 50 years or older with hip, vertebra or wrist fractures. They compared their use of proton pump inhibitors with a similar group of control patients who did not suffer fractures and found that use of the drugs for 7 or more years was associated with a statistically significant increased risk for an osteoporosis-related fracture. With hip fractures, the increased risk was seen after 5 years of proton pump inhibitor use, and there was an even higher risk after 7 years. The researchers speculate that the drugs accelerate bone mineral loss by inhibiting the production of hydrochloric acid. Drs. Brent Richards and David Goltzman, from the department of medicine at McGill University in Montréal, commented on the study findings saying that patients and their doctors should balance the potential risks with the benefits of taking proton pump inhibitors, especially given their proven effectiveness.

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COMPILED BY PAT RICH



## The quality of indoor air...and how to improve it

We spend about 90% of our time indoors. As such, any contamination of indoor air quality can increase the risk for developing a number of allergies, asthma and even lung cancer. A review of indoor air quality by researchers from the University of Ottawa and Health Canada identifies a number of factors that can have a negative impact on air quality. These range from allergens and building-related dampness and mould, to indoor air pollutants, including carcinogens and biochemical and chemical contaminants. The good news is that homeowners can take a number of relatively simple steps to improve the air quality in their homes. Because pets can be a major cause of allergens, the researchers recommend keeping them outside or restricting their access inside and frequent vacuuming with a high-efficiency particulate air filter or central vacuum. Chemicals from dry cleaning can be another major cause of contamination, and they urge that recently dry-cleaned clothes not be brought into the house for several days. They also recommend eliminating exposure to combustion products such as cigarettes, candles and incense, and fixing leaking wood stoves, fireplaces and furnaces.

TOP: DAN BACHMAN/ISTOCKPHOTO; BOTTOM: DEAN MITCHELL/ISTOCKPHOTO

## Discontinuing anticoagulant therapy

Patients who have suffered an unprovoked first episode of deep vein thrombosis or pulmonary embolism are at high risk for a repeated blood clot if they stop taking anti-clotting medication. This risk is about 10% in the first year for patients who stop taking anticoagulant therapy. Current guidelines recommend that, in the absence of risk factors for bleeding, patients with a first episode of deep vein thrombosis or pulmonary embolism remain on therapy indefinitely. However, a Canadian research team has helped identify a group of women who may be able to avoid taking preventive medication indefinitely. The research team, based in Ottawa, evaluated 646 patients from 12 centres in 4 countries who had an unprovoked venous thromboembolism. These patients were followed for 18 months, during which time there were 91 recurrences. The research team collected data on dozens of potential predictors of recurrence and found that women who had 0 or 1 risk factor for a recurrence could safely discontinue oral anti-coagulant therapy after 6 months without risk of having a recurrence. Dr. Clive Kearon, from Hamilton, Ont., who commented on the research, noted — as did the study researchers — that more validation is needed before physicians can confidently recommend stopping anticoagulant therapy for these patients.

## Gestational diabetes and the risk of developing diabetes mellitus

The number of women with pregnancy-related diabetes who go on to develop permanent type 2 diabetes after pregnancy appears to be increasing, and the time to development of permanent diabetes appears to be shortening. A research team based at the University of Toronto used Ontario medicare data to identify all of the births in the province between 1995 and 2002, and these were linked to mothers with a diagnosis of gestational diabetes and the presence of permanent diabetes. The study found that the incidence of gestational diabetes rose significantly over the study period, from 3.2% in 1995 to 3.6% in 2001. The probability of diabetes developing after gestational diabetes was 3.7% at 9 months after delivery and 18.9% at 9 years after delivery. Having gestational diabetes was identified as the most significant predictor of developing permanent diabetes. British diabetes expert Dr. David Simmons from Cambridge University Hospitals in the UK called the Toronto research a “timely” report, “allowing renewal of attention to an important condition where we could do better.”

