

# February Features: The latest in health news



**Depressing facts about air pollution:** We already know about the deleterious effects of airborne pollutants on heart health; people who live near high-density traffic or near factory emissions are at higher risk of cardiovascular events. It's also been revealed that air pollution may increase the likelihood of dementia.

So it's not a reach to suspect airborne pollutants may impact mood. And that's what researchers found after reviewing records of nearly 9 million Medicare recipients. They confirmed associations between particulates, nitrous oxide, and ozone with late-life depression.

There's robust scientific evidence demonstrating that inhaled air pollutants can cross the blood-brain barrier and trigger autoimmune and inflammatory responses.

There's an equity issue here: Affluent Americans can afford to live in cleaner neighborhoods; The richest American men live 15 years longer than the poorest men, while the richest American women live 10 years longer than the poorest women. The gaps between the rich and the poor are growing rapidly.

In addition to better food, more exercise opportunities, less susceptibility to violence, and decreased economic stress, they enjoy greater freedom from brain-

damaging environmental exposures at work and at home. It's clear that depression is, in large part, a reflection of brain health, not just a question of the right mental outlook.

**Long Covid and lifestyle:** Long Covid is a debilitating condition in which sufferers experience a myriad of symptoms for months and even years after a natural infection. While we know that age and comorbidities like frailty, immune suppression, obesity, diabetes, heart conditions, lung disease, physical deconditioning, vitamin and mineral deficiencies and unhealthy diets are risk factors for hospitalization and death from Covid, there appears to be a certain randomness to acquiring Long Covid. Even young and ostensibly healthy individuals seem to come down with it.

The unpredictability of Long Covid has propelled many people who are not especially concerned about dying from Covid to opt for vaccines, boosters, masking and isolation. But a **huge study** (13 million people) in the prestigious science journal *Nature* shows that Long Covid risk falls only slightly after vaccination. The protection was estimated to be around 15%, and of uncertain durability.

On the other hand, as with Covid itself, a **new study** demonstrates that a healthy lifestyle confers some degree of protection against Long Covid. Those with 5 out of 6 healthy pre-infection lifestyle factors enjoyed a 49% lower risk of persistent symptoms after a Covid infection. And among those who developed Long Covid, symptoms were milder.

The two lifestyle factors most associated with protection against Long Covid were maintaining optimal body weight and getting adequate sleep (7-9 hours per night). This is concerning since 70% of the adult population do not have optimal body weight and 30% do not sleep enough.

**Mushrooms for memory:** Lion's mane mushrooms are reputed to boost brain function; I often prescribe them to patients suffering from "chemo-brain", age-related cognitive decline, or simply "brain fog". Now, **research confirms** the ability of extracts from Lion's mane to promote the growth of cultured brain cells; viewed through high-powered microscopes, neuron projections that link brain regions were seen to proliferate.

**The real nursing home scandal:** Much has been made of the ill-advised decision to send frail Covid-infected elderly back to their poorly-equipped senior residences. Those places became death traps.

But the real scandal is the failure of many nursing homes to leverage a simple low-cost measure to bolster residents' immunity and stave off respiratory infections: Vitamin D supplementation. A **recent review** comprising 58 studies found a high prevalence of vitamin D deficiency—ranging from 8 to 94%.

The institutionalized elderly are at significant risk of vitamin D deficiency due to lack of sunlight exposure, poor dietary intake, compromised renal function, and absent or inadequate supplementation; a mere multivitamin may not be enough to forestall insufficiency. An additional benefit of vitamin D for seniors is its ability to **reduce the incidence of falls**; there's also tantalizing new evidence that high-dose vitamin D may prevent diabetes.

**Deprescribing—a therapeutic intervention whose time has come:** Many patients come to me to find alternatives to the bewildering array of medications they're on. Polypharmacy is a serious problem in the U.S.; the percentage of over-65s in the U.S. who are taking five or more prescription drugs increased from 53.4% to 67.1% between 2006 and 2011. Fragmentation of care sometimes allows a collection of

specialists to prescribe drugs without proper screening for potential interactions. With five or more meds on board, the likelihood of dangerous side effects surpasses 50%.

I can well recall instances where prudent deprescribing lead to dramatic improvements in patients' health without putting them at risk of worsening the conditions for which the drugs were prescribed. In one particularly dramatic case, a patient brought in her elderly mother who was suffering from progressive dementia and depression. What's more, she was a retired professor at a prestigious university. I analyzed her complex medical regimen which consisted of seven drugs, and determined that it was worth a try to gradually taper several of them. Within weeks, her lucidity dramatically improved. She was able to converse with me about complicated academic subjects. Her daughter exclaimed: "It's so great to have mom back!"

Unfortunately, it's easier to put patients on medications than to withdraw them. There's a paucity of studies on the benefits of medically-supervised deprescribing. But a recent study in *JAMA* demonstrates that, upon leaving hospital, patients could be safely weaned off many of their medications without risk of adverse effects or rehospitalization. The authors report: "*The findings suggest the safety and effectiveness of the deprescribing intervention in reducing the total medication burden.*"

Medications most commonly associated with side effects and drug interactions among the elderly include sleep meds, overactive bladder remedies, anti-anxiety and antidepressant drugs, statins, and certain diabetes prescriptions.

**Study of recipients of bariatric surgery shows unanticipated risk:** For the morbidly obese, when diet and exercise fails, there's no question that gastric bypass procedures can avert major health problems and extend life. Death from cardiovascular disease was 29% lower; cancer 43% lower; and diabetes 72% lower. But a new study reveals an unforeseen consequence of bariatric surgery for some.

Among the youngest group of bariatric surgery patients—who were 18-34 years old—there was a *five-fold increased risk of suicide* during an average follow-up of 13 years.

This is concerning, especially in view of a newly-released **American Academy of Pediatrics position paper on childhood obesity** that, for the first time, endorses bariatric surgery and weight loss medications for children as young as 13.

It's counterintuitive that surgery that produces significant cosmetic benefits could prompt suicidal depression in young people. The reasons need to be explored. Could it be that body transformations of such a magnitude pose severe psycho-social challenges to recipients of bariatric surgery? Or do nutrient malabsorption and/or alterations in the microbiome have a deleterious impact on the brain? Regardless, it's a caution flag that we shouldn't ignore in our zeal to address obesity with drugs and procedures that may have significant long-term downsides. These options distract us from addressing childhood overweight by promoting physical activity, limiting screen time, and reducing junk food marketing to kids.

(Listen to the **February 11 podcast episode** of the *Intelligent Medicine* radio show for a comprehensive discussion of these and other issues.)