



HEALTH

# The new science of marriage

Exercise? Diet? Actually, new research shows getting married—and staying married—may be the best thing you can do for a longer, healthier life.

**BY KATE LUNAU** · Dave and Joyce Mayne, who met on a blind date, have been married 33 years. They live in Elmvale, Ont., near Barrie, and have two adult children. “We’re bikers,” says Dave, 60. “We probably put 20,000 clicks on the Harley every summer. Joyce loves to say, ‘What other holiday is there where you’re spending two weeks with your legs around your husband?’” In 2007, Dave was diagnosed with prostate cancer. He still remembers the shock he felt as the doctor delivered his diagnosis. “I didn’t hear another word,” Dave says. Joyce was with him. “I looked at Dave, and knew he had shut down. I had to get into caregiver mode, and listen.”

In the days and weeks that followed, Joyce

didn’t miss one appointment, and kept track of all the details in her day planner. She was there when Dave had surgery to have his prostate removed, and through his painstaking recovery. “You’re very weak, and you’re emotional, particularly with this type of cancer,” he says. (Prostate cancer treatment can cause erectile dysfunction.) “You can’t even sit up in bed without help. You’re not feeling very manly.” Joyce’s resolve never wavered. “I say, whatever it is, we’re going to work through it as a team.” A long-time volunteer at the Canadian Cancer Society, where Joyce also works, Dave—who is now cancer-free—gives peer support to other patients. “I talk to a lot of men whose wives are leaving them,”

he says. “Their attitudes are so different than those in healthy relationships.”

A 2013 study, in the *Journal of Clinical Oncology*, confirmed what the Maynes believe: cancer patients with a supportive spouse tend to fare far better than those who are on their own. The protective effect of marriage, as shown in this study, is somewhat shocking. Researchers from major U.S. cancer centres looked at the records of 734,889 patients diagnosed with one of the 10 most common and fatal forms of cancer, from 2004-08. (These included lung, colorectal, breast and non-Hodgkin lymphoma.) After controlling for variables like age, sex, race, household income and education, they found that single

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people were 17 per cent more likely to be diagnosed with metastatic cancer, which had spread to other parts of the body, and were 53 per cent less likely to get the best treatment. "Patients who were married tended to live 20 per cent longer than those who were [single, divorced, or widowed]," says senior author and radiation oncologist Paul Nguyen, an associate professor at Harvard Medical School. The team concluded that the benefits of a happy marriage are comparable to—or better than—chemotherapy.

Nguyen says he's seen the difference a supportive spouse can make many times: from the moment a diagnosis is delivered, when the patient is often overwhelmed and a loved one steps in to ask questions and take notes, through treatment and recovery. "These cancer treatments are tough," he says. "To get the best outcome, you need to show up every day. And if the patient's having a bad day, and nobody's there to take them in, they're going to miss the day."

But there's something more intangible at work here, too—a marriage effect that goes well beyond the pragmatic role of chauffeur or notekeeper to be one of the most important drivers of healthy outcomes. Marriage isn't just a cancer-fighter. In a vast array of scientific studies, over and over again, a happy union has been shown to benefit virtually every system of the body. It reduces the risk of heart attack and stroke. It triples a patient's survival after bypass surgery. It lowers production of stress hormones, and boosts immune response. Married people are also less likely to drink and smoke. It's accepted wisdom that one spouse will often die soon after the another; studies have confirmed this "widowhood effect." A bad marriage, on the other hand, can contribute to poor health outcomes, raising blood pressure and weakening the immune system.

It's not just true in North America. The same findings have been repeated in countries around the globe. A 2011 study on marriage and mortality among the middle-aged and elderly in Shanghai found marriage to be associated with decreased mortality from any cause, and from cardiovascular disease in particular, among both men and women. Cross-cultural research from Brigham Young University shows the link exists in China and Taiwan, where "the relationship between marital quality and health outcomes, including depression, are just as strong."

So widely acknowledged, in fact, are the benefits of marriage on health that there is a case to be made for it as a major public health issue in a society that is increasingly

moving away from marriage and toward cohabitation—which, surprisingly, doesn't seem to offer the same benefits. A 2006 report from Finland, for example, says that, due to the ballooning number of unmarried people, "challenges on public health are likely to increase."

Quite simply, if we could package it in a pill, marriage would qualify as a wonder drug. Finding a way to mimic the benefits of marriage could well be the most critical health challenge of our time.

MARRIAGE RATES ARE now at their lowest in a century. According to a 2013 study, the U.S. marriage rate has dipped almost 60 per cent since 1970. In Canada, in 1961, married couples accounted for almost 92 per cent of families in the census. By 2011, the number had dropped to 67 per cent, although common-law couples saw explosive growth. Statistics Canada didn't even start tracking these unions until 1981; in the last three decades, their numbers more than quadrupled.

Andrew Cherlin, a professor of public policy at Johns Hopkins University, has called marriage a "luxury good" that, for many, has become unaffordable. Just a few decades ago, it was "a first step into adulthood," he says. "Now it's the last," one that tends to come after completing an education, landing a job, maybe even buying a house. More couples are opting to live together and forgo marriage; but what's astounding to researchers is that these unions, though they resemble marriage in many ways, don't seem to offer quite the same protective effect.

One need only look to Quebec, where cohabitation has long been the norm. In 2011, 38 per cent of couples there were in common-law unions, compared to 15 per cent in the rest of Canada. Yet even here, surprisingly, those partnerships tend to be less long-term and committed than marriages. McGill University's Céline Le Bourdais, Canada Research Chair in Social Statistics and Family Change, has examined this. "Cohabiting unions are a bit more stable in Quebec than in the rest of Canada," she says, "but they are still a lot more unstable than marriages." For a cohabiting couple, marriage cuts the risk of separating by 50 per cent, she has found. But having a child reduces a cohabiting couple's risk of a split by only about 30 per cent.

That lack of stability helps explain why cohabiting couples get less of a health uptick

than their married counterparts. In a 2012 study, the first U.S. research to look at cohabitation and longevity, Hui Liu of Michigan State University found that heterosexual married people lived longer than those who were cohabiting. "Couples who cohabit are less likely to pool their income," Liu says. Their unions are also typically shorter-term, she notes, contributing to stress and strain. What's more, cohabiters generally have lower income and education levels, adds Debra Umberson, professor of sociology at the University of Texas at Austin, which are two big health determinants. "If you wanted to choose between a spouse, or a better education and income, I'd go with the latter," Umberson says of this caveat to the marriage-health link, which is that marriage on its own is not as important to health

as being wealthy, which is certainly true in the U.S.

Beyond financial support, though, the mere presence of a loving partner seems to dampen stress and regulate pain. In her new book, *Love Sense*, Ottawa-based psychologist Sue John-

son describes a study by James Coan at the University of Virginia, who put happily married women inside an fMRI machine, which measures brain activity.

These women saw small circles and Xs flash before their eyes—and were told that when they saw an X, there was a one-in-five chance they'd get an electric shock. After each shock, they rated how much it hurt. Sometimes, the women were alone; other times, a stranger held their hand; and still other times, their husband did. Alone, these women's brains lit up with signs of alarm at the sight of an X, and they rated each shock as extremely painful. The stranger's presence had a slight mitigating effect. But holding their husband's hand calmed them: their brains barely reacted to the warning X, and they described the shock as just uncomfortable.

"We are designed, not just emotionally and socially, but physiologically, to live in close connection with people who will come when we call," Johnson says. "If you have a safe, loving relationship, your heart rate goes down. You have fewer stress hormones in your body. Your body works more efficiently."

Married men are found to have measurable blood markers that indicate better health outcomes. In a 2009 study by David Sbarra of the University of Arizona, older married men had lower levels of C-reactive

**'If you have a safe, loving relationship, your heart rate goes down. You have fewer stress hormones.'**

protein, an inflammation marker that indicates higher risk of cardiovascular disease. A number of studies have suggested that marriage is good for heart health. One, from 2011, found that a happy marriage tripled long-term survival after bypass surgery in both men and women—an effect that co-author Harry Reis, professor of psychology at the University of Rochester, called “every bit as important as more traditional risk factors like tobacco use, obesity, and high blood pressure.” In 2012, sociologist Ellen Idler examined over 500 U.S. male and female patients undergoing heart surgery. Those who were married were three times more

women also tend to be much healthier than single men, partly because they maintain a wider web of friends and loved ones.)

If a good marriage can shore up both spouses’ health, a bad one can do real damage. Janice Kiecolt-Glaser, professor of psychiatry and psychology at Ohio State University, has found that arguments between a husband and wife weaken their immune systems, leaving them vulnerable to disease. (Women appear to be especially at risk.) In one of her studies, 42 married couples were invited into a hospital lab, where small suction blisters were created on their forearms. They were asked to either participate in a structured type of

husband’s presence helped them cope far better: their alarm response was muted, and they rated the pain as merely “uncomfortable.” Therapy seems to have altered the way the brain encodes and responds to threats, the study notes. “We can create such safety between a couple that the husband’s hand is this amazing safety cue,” Johnson says, “that will change the way a woman’s brain perceives the threat of shock.”

Even if a relationship isn’t on the rocks, marital satisfaction tends to decline over time, Finkel says. Researchers are still trying to untangle the reasons why—the stresses of career and child-rearing that come with middle age could be a factor—but the quality of a marriage remains an important predictor of a person’s overall happiness. Finkel has designed what he calls “the marriage hack,” a brief exercise that seems to halt this decline. In a 2013 study, he described having 120 couples perform a writing exercise that included a summing-up of a recent argument they’d had, reimagined from the point of view of a neutral third party who wanted the best for everyone. Spending a mere 21 minutes a year on this “is perhaps the single best investment you will ever make on the quality of your life,” he says, one that boosts physical and mental health, not to mention happiness. “It’s a lot better” than a trip to the gym, he says: imagine if going to the gym just 21 minutes per year could provide a similar protective effect. This intervention, he adds, is almost cost-free.

Whether governments should go so far as to consider adopting programs like Finkel’s to help their citizens’ marriages is an intriguing, if controversial, option—and some believe there’s a public health argument for doing so. “We tax to discourage drinking and smoking,” notes Marina Adshade of the Vancouver School of Economics at the University of British Columbia, author of *Dollars and Sex*. “Married people are happier, healthier, and live longer. If we know certain things are good for people, like marriage, why not tax in a way that encourages them?” This could be important given our aging population, a growing number of whom are single. One-third of U.S. adults aged 45 to 63 are unmarried, a more than 50 per cent increase since 1980, according to the National Center for Family & Marriage Research at Bowling Green State University. “As people get older, having a partner substitutes for a lot of the services provided by government,” Adshade says.

Some countries are actively supporting marriage, even encouraging citizens to wed.



**Bedside manner:** Cancer patients with a supportive spouse fare better than those on their own

likely than singles to survive the next three months, she and her team found; the protective effect lasted up to five years. Married patients seemed to have a more positive outlook, she and her collaborators note. They were less concerned about the surgery, and the pain that would follow. And they were less likely to be smokers.

The group that has historically gotten the most out of marriage is, not surprisingly, men. “People in relationships tend to police each other,” reminding their partner to keep a doctor’s appointment or to eat better, says Umberson, who studies the effect of gender and relationships on health. “But women still do it more than men do.” Marriage can also carry more stress for women, given the “second shift” of child care and housework that still often comes along with it, although the rapid and ongoing shift in gender roles has yet to be reflected in many longer-term studies. (Single

interaction or to dredge up a marital disagreement. After the conversations about marital conflict, their wounds took longer to heal, and those who had the most hostile or negative interactions were the worst off. “Happily married people do a little better than single people,” says Eli Finkel, professor of social psychology at Northwestern University, “but single people are better off than people in bad marriages.”

Some troubled unions can be saved, which actually seems to restore their protective effect. In a 2013 study in the journal *PLOS One*, Johnson teamed up with Coan to perform a variation of his fMRI study. These were women in unhappy partnerships, who were undergoing counselling. Before therapy, their responses in the fMRI echoed those of the earlier study, except that holding their husband’s hand offered little or no protective effect. But after 20 therapy sessions, their



**Calming effect:** A study where women were subjected to stressful situations found they were barely ruffled if their spouse was holding their hand

“Marriage is good for Britain—and that’s why I’m backing it with a tax break,” said Prime Minister David Cameron in a September editorial in the U.K.’s *Daily Mail*, touting a transferable tax allowance to be introduced in 2015, projected to cost his government some half a billion pounds. “The values of marriage are give and take, support and sacrifice—values that we need more of in this country,” he said. The opposition group, Don’t Judge My Family, slammed the initiative as promoting a “fantasy 1950s family,” but the Centre for Social Justice applauded the move as a powerful curb on a family breakdown problem in the U.K. Singapore, facing an aging population and low birth rate, “has been trying to increase marriage rates for over a decade,” Adshade says, “not so much through taxation as through services,” like online matchmaking, or leaflets warning women of their declining fertility. As part of reforms to its family law system in 2005, Australia established 65 government-funded Family Relationship Centres across the country, designed to offer everything from information and referral services on parenting and relationships, to dispute resolution for families that are separating.

Pro-marriage efforts walk an uncomfortable line between promotion and proselytizing. (In his editorial, Cameron was quick to insist his scheme isn’t “social engineering.”)

### Working on your marriage with some simple exercises could be ‘better for you’ than a trip to the gym

Susan Brown, co-director of the National Center for Family & Marriage Research, says the U.S. has spent “hundreds of millions of dollars” on its Healthy Marriage Initiative, a George W. Bush-era program that aimed to promote marriage among lower-income couples, which bankrolled advertising campaigns, skill-building workshops and parenting classes. “And there’s not much evidence that all that money spent has done that much,” she says.

The Harper government’s proposed income-splitting scheme—which would allow parents to divide income with their partner when claiming taxes, reducing the overall amount they pay—has been billed as a family-friendly initiative, and by extension, one that will help married and common-law couples, who are treated the same under our income tax law. Andrea Mrozek, of the right-wing Institute of Marriage and Family Canada, supports this as providing “lower taxes for families,” a bulwark against big government. But critics like Kathleen Lahey, of the Queen’s University faculty of law, argue the government has no place in ushering its citizens down the aisle. “If marriage means anything to anyone, it ought to be a personal decision,” Lahey says, adding that it is completely inappropriate “to try to use social assistance or tax provisions to manipulate people into making lifestyle choices.”

Encouraging marriage is a political hot

potato, one that’s typically been the domain of the religious right. But now there’s a different argument to be made, one that increasingly relies on public health assertions rather than moral values. Given the growing number of Canadians facing old age alone—where the risks of remaining solitary are highest—it’s an argument at the forefront of any debate about the merits of marriage in years ahead.

Still, not everyone will marry; and even those who do will one day find themselves alone. Health care workers, scientists and researchers are looking for creative ways to mimic the effects of marriage. An editorial by David Kissane of Australia’s Monash University, which accompanied the cancer study, suggests several ways to help single patients—a potentially at-risk group. This could include community outreach “through libraries, hairdressing salons, supermarkets and gas stations” to encourage people to go get screened, if they don’t have a spouse to urge them to go see the doctor. In Japan, which is aging faster than any other country, caretaking robots are being designed that could take the place of nurses—or spouses—to assist the elderly.

More practical alternatives, already in place, are peer-support programs, like the one to which Dave Mayne belongs. After everything he went through with Joyce, he knows the difference having a supportive spouse can make. Today, when he encounters a cancer patient who’s on his own, he’ll go visit him. “You need someone to fetch you a coffee or get an extra blanket, he says, “when you can’t get out of bed.” ♣