

# Sufferers of joint pain need not be inactive

**DWIGHT CHAPIN**  
HEALTH ADVISOR

**S**taying active every day is a powerful elixir – it improves your performance, attitude and elevates your health. And this truth is not limited by age. The list of benefits from physical activity is long and well-documented, from reducing the risk of developing heart disease to better mental health. Even those with a chronic disease can benefit from weaving activity into their daily routine. Research shows adults with a chronic illness who stick to the recommended weekly activity prescription enjoy as much as a 20-per-cent reduction in their risk of premature death. But while the body is clearly made for motion, joint pain often prevents many people from developing a healthy

activity habit. Current guidelines that call for at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity each week are challenging for joint-pain sufferers, especially because the target requires activity lasting at least 10 minutes at a time. A 2004 study published in *Arthritis and Rheumatism* suggests that two in five adults with hip, knee and/or foot/ankle-joint conditions not only fail to meet these guidelines, but do not engage in a single 10-minute session of moderate activity in a week. Fewer than 11 per cent of U.S. adults with knee osteoarthritis are reported to achieve these recommendations. This pattern of non-activity establishes a slippery slope. Maintaining strength, balance and physical conditioning is impera-

tive as we age and is often as great a concern as cardiovascular health. Opting out of an active lifestyle is not an option. But how do you increase your activity if movement hurts? Asking a sedentary individual with osteoarthritic knees to reach the 150-minute target of moderate activity each week is unrealistic. A goal of more than 20 minutes of moderate exercise a day, every day, can be so intimidating people decide to turn away from it altogether. And, as habits become more sedentary, health declines. Recognizing this barrier, a study recently published in the journal *Arthritis Care and Research* successfully challenged the current activity guidelines and identified a more realistic minimum physical activity threshold for adults with lower-extremity joint symp-

oms. The study analyzed data from 1,629 adults, over the age of 49 with symptomatic, lower-extremity joint pain, aches or stiffness over a two-year period. The results support an intermediate threshold of 45 minutes a week of moderate-intensity physical activity to promote improved or sustained high function. Instead of more than 20 minutes, just about 6½ minutes of daily moderate exercise may be enough to drive gains for joint-pain sufferers. While further research is required to confirm these results, this is good news for those with joint pain who may view the target as more palatable and, consequently, decide a few minutes a day is doable. Knowing that even a small investment of time can have a meaningful impact on physical functioning and increase

energy levels while reducing pain and stiffness is powerful motivation to get up and get moving. Talk to your team of health providers and develop a strategy to meet your needs. Brisk walking is usually a good place to start. As your fitness level improves, so will your pace. In the early days of establishing this habit, let your mobility and pain guide your progression. Muscle soreness from a new activity is normal, increased joint pain or swelling is not. Find 6½ minutes a day and you will be on your way.

*Dr. Dwight Chapin, B.Sc(H), D.C., is the clinic director of High Point Wellness Centre in Mississauga, team chiropractor for the CFL's Toronto Argonauts and on-site clinician for employees of The Globe and Mail. Follow him on Twitter @HighPtWellness.*

# The cost of not taking your medicine

Non-adherence to prescriptions is estimated to cause thousands of deaths every year. So why are people refusing their drugs?

**JANE E. BRODY**

**T**here is an out-of-control epidemic in the United States that costs more and affects more people than any disease Americans currently worry about. It's called non-adherence to prescribed medications and it is – potentially, at least – 100 per cent preventable by the very individuals it afflicts. The numbers are staggering. “Studies have consistently shown that 20 per cent to 30 per cent of medication prescriptions are never filled, and that approximately 50 per cent of medications for chronic disease are not taken as prescribed,” according to a review in *Annals of Internal Medicine*. People who do take prescription medications – whether it's for a simple infection or a life-threatening condition – typically take only about half the prescribed doses. This lack of adherence, the *Annals* authors wrote, is estimated to cause approximately 125,000 deaths and at least 10 per cent of hospitalizations, and to cost the U.S. health-care system between \$100-billion (U.S.) and \$289-billion a year. Former surgeon-general C. Everett Koop put it bluntly: “Drugs don't work in patients who don't take them.” This partly explains why new drugs that perform spectacularly well in studies, when patients are monitored to be sure they follow doctors' orders, fail to measure up once the drug hits the commercial market. More important, it explains why so many patients don't get better, suffer surprising relapses or even die when they are given drug prescriptions that should keep their disorders under control.



Studies show that 20 per cent to 30 per cent of medication prescriptions are never filled, and around half of chronic-disease medications aren't taken properly. This may explain why so many patients don't get better, even with prescriptions that should keep their disorders under control. PAUL ROGERS/ NYT

“When people don't take the medications prescribed for them, emergency-department visits and hospitalizations increase and more people die,” said Bruce Bender, co-director of the Center for Health Promotion at National Jewish Health in Denver. “Non-adherence is a huge problem and there's no one solution because there are many different reasons why it happens.” For example, he said parents often stop their children's asthma treatment “because they just don't like the idea of keeping kids on medication indefinitely.” Although a child with asthma may have no apparent symptoms, there is underlying inflammation in the lungs and without treatment, “if the child gets a cold, it can result in six weeks of illness,” Bender explained. When Dr. Lisa Rosenbaum, a cardiologist at Brigham and Women's Hospital in Boston, asked patients who had suffered a heart attack why they were not taking their medications, she got responses such as, “I'm old-fashioned – I don't take medicine for nothing” from a man with failing kidneys, peripheral vascular disease, diabetes and a large clot in the pumping chamber of his heart. Another common response: “I'm not a pill person.”

**“There are so many reasons patients don't adhere [to their medications] – the prescription may be too complicated, they get confused, they don't have symptoms, they don't like the side effects, they can't pay for the drug or they believe it's a sign of weakness to need medication.”**

**Dr. William Shrank**  
Chief medical officer at the University of Pittsburgh Health Plan

hairdresser that she was studying why some people with heart disease don't take their medications, he replied, “Medications remind people that they're sick. Who wants to be sick?” He said his grandmother refuses to take drugs prescribed for her heart condition, but “she'll take vitamins because she knows that's what keeps her healthy,” so he tells her that the pills he gives her each night are vitamins. Other patients resist medications because they view them as “chemicals” or “unnatural.” One man told Rosenbaum that before his heart attack, he'd switched from the statin his doctor prescribed to fish oil, which, unlike statins, has not been proved to lower cholesterol and stabilize arterial plaque. “There's a societal push to do things naturally,” she said in an interview. “The emphasis on diet and exercise convinces some people that they don't have to take medications.” Bender said, “People often do a test, stopping their medications for a few weeks, and if they don't feel any different, they stay off them. This is especially common for medications that treat ‘silent’ conditions like heart disease and high blood pressure. Although the consequences of ignoring medication may not show up right away, it can result in serious long-term harm.”

drives down the decision to take it.” Cost is another major deterrent. “When the co-pay for a drug hits \$50 or more, adherence really drops,” Bender said. Or, when a drug is very expensive, such as the biologics used to treat rheumatoid arthritis that cost \$4,000 a month, patients are less likely to take them or they take less than the prescribed dosage, which renders them less effective. Dr. William Shrank, chief medical officer at the University of Pittsburgh Health Plan, said when Aetna offered free medications to patients who survived a heart attack, adherence improved by 6 per cent and there were 11 per cent fewer heart attacks and strokes compared with patients who paid for their medications and had an adherence rate of slightly better than 50 per cent. “There are so many reasons patients don't adhere – the prescription may be too complicated, they get confused, they don't have symptoms, they don't like the side effects, they can't pay for the drug or they believe it's a sign of weakness to need medication,” Shrank said.

“This is why it's so hard to fix the problem – any measure we try only addresses one factor.” Still, there is hope for improvement, he said. Multiple drugs for a condition could be combined into one pill or packaged together, or dosing can be simplified. Doctors and pharmacists can use digital technology to interact with patients and periodically reinforce the importance of staying on their medication. With fear of side effects a common deterrent to adherence, doctors should inform patients about likely side effects when issuing a prescription. Failing that, patients should ask: “What, if any, side effects am I most likely to encounter?” Forgetting to take a prescribed drug is a common problem, especially for those ambivalent about taking medication. Patients can use various devices, including smartphones, to remind them to take the next dose, or use a buddy system to make adherence a team sport. Shrank suggested making pill-taking a habit, perhaps by putting their medication right next to their toothbrush.

When Rosenbaum told her

Some patients do a cost-benefit analysis, he said. “Statins are cheap and there's big data showing a huge payoff, but if people don't see their arteries as a serious problem, they don't think it's worth taking a drug and they won't stay on it. Or if they hear others talking about side effects, it

**TODAY'S KENKEN SOLUTION**

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**TODAY'S SUDOKU SOLUTION**

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New York Times News Service