

The trend toward self-diagnosis

Do-it-yourself diagnosis is becoming easier than ever as more self-test kits appear on pharmacy shelves and websites. The kits claim to diagnose everything from prostate cancer to Alzheimer disease and menopause. But many health organizations warn consumers to use the kits with caution, claiming they can be unreliable, inadequate and are no substitute for a diagnosis by a physician.

“Basing your health on a 15-minute home test? I’m not so sure about that,” Steffany Bennett, neurobiologist and research chair in neurolipidomics at the University of Ottawa in Ontario says in reference to kits that claim to identify memory problems associated with Alzheimer disease.

Yet, self-diagnosis clearly appeals to many. There are home tests for an array of conditions including high cholesterol levels, gluten intolerance and sexually transmitted infections like HIV and syphilis. Many are quick and easy to use, generally requiring only a finger-prick, or a urine sample. They can also, in some cases, actually do what their labels claim: uncover indications of a medical condition.

Some kits are inexpensive. A home prostate specific antigen (PSA) test, for example, can be bought online for \$11. Others are pricier. Home tests that claim to identify HIV through a blood test cost anywhere from \$80 to \$100. A home performance test that claims to identify Alzheimer symptoms can cost over \$500.

It is difficult to gauge the size of the do-it-yourself health test industry because of its explosive growth, though trendwatching.com pegged do-it-yourself health applications and devices as the second hottest trend in 2012 (<http://trendwatching.com/trends/12trends/2012/?diyhealth>). The research company, Technavio, meanwhile, projects that the global mobile health applications market, which includes do-it-yourself kits, will reach US\$4.1 billion in 2014, more than tripling from a 2010



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Self-test kits are easily ordered online for delivery at home.

level of US\$1.7 billion (www.technavio.com/content/global-mobile-health-application-market-2011-2015).

There are dangers, however, in turning the bathroom into a medical testing facility, experts say. Patients might use a test incorrectly, misinterpret results or fail to confirm their findings with a physician. Tests can be entirely inaccurate

or provide inadequate information to make an accurate diagnosis.

Home self-tests kits have become so popular in the United Kingdom that the Medicines and Healthcare products Regulatory Agency, the government body in charge of ensuring the safety and efficacy of drugs and medical devices, recently released guide-

lines on how to use them properly (www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Adviceandinformationforconsumers/Buyingmedicaldevices/Selftestkits/index.htm).

The agency cautions consumers to seek the advice of a medical expert about which tests are of high quality, diligently read the instructions, store and dispose of test kits properly, carefully consider the results and visit a health care professional if symptoms persist.

Most kits are manufactured in the United States or Europe, but Canadians can easily purchase them on the Internet. Some tests are free, including a host of online self-tests for Alzheimer disease that appear to be little more than memory exercises.

Moreover, Alzheimer disease “is something more complex than just taking a quick online test. They’re going to be there and people are going to take them, but we’re asking people to be

cautious,” says Mary Schulz, director of information and education at the Alzheimer Society of Canada. “Some of them aren’t very evidence-based. They’re very simplistic, and even if they are rigorous online tests, the reality is this takes a professional to tease out the complexities.”

It is also possible to buy tests on eBay that claim to be more complex and able to measure cognitive performance, but consumers should be wary of those as well, warns Bennett.

“I’m not a fan of the eBay ones,” she says. “These are very crude measures of possible changes that are associated with mild cognitive impairment. Scores on these tests don’t necessarily reflect what’s going on.”

Self-test kits for cancer are also available, including a device that identifies PSA levels in the blood, though they are often unlicensed. Home PSA tests, for example, are not licensed for sale in Canada, says Sean Upton, director of communications for Health Canada.

Consumers should also be aware that the findings of a do-it-yourself kit are not necessarily positive proof of disease. For example, a PSA test by itself is not a definitive way to diagnose prostate problems, says Stuart Edmonds, chief scientific officer for Prostate Cancer Canada. “A low PSA level doesn’t necessarily mean there is no disease and a high PSA level doesn’t necessarily mean there is disease,” he says, adding that it’s better to have clinicians conduct tests. “Doing it in a clinical environment will ensure that the guy will have access to a health care professional who will guide them through the next step, whatever the result is.”

But given the apparent popularity of the devices, Edmonds says there’s a need to develop guidelines on their use. “I think there should be some kind of information for people taking the test at home so they can understand the implications.” — Veronique Hynes, Ottawa, Ont.

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