

New, more effective shingles vaccine offers greater protection

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Close to one-in-three Americans will develop shingles, a rash of itchy blisters similar but more painful than chicken pox. Usually appearing in a swath on the side of the face or torso, shingles feels, as one sufferer described it, like being pressed against a cactus.

A vaccine against shingles has been available for several years, but a new vaccine promises to offer greater protection and significantly limit the suffering from shingles. Approved by the Food and Drug Administration last October, the Shingrix vaccine provides a 90 percent protection rate for older adults, compared with 50 percent for the previously available Zostavax vaccine. And unlike its predecessor, Shingrix can safely be given to those with compromised immune systems.

“The old vaccine is a live vaccine,” says Daniel Z. Uslan, MD, an infectious diseases physician and director of the UCLA Antimicrobial Stewardship Program. “It makes your body immune by exposing it to a live but weakened shingles virus. The new vaccine is an inactivated recombinant vaccine, meaning there is no live virus in it. It’s a much safer vaccine that we can use in patients with weaker immune systems. And those are the people who need the vaccine because they’re most likely to get shingles and have complications from shingles.”

Shingles is caused by the same virus that causes chicken pox. After a person has

chicken pox, usually as a child, the virus remains dormant in the nerves. With age, stress or a weakening immune system, the virus can reactivate, producing a similar rash that can cause extreme pain. About 20 percent of people who get shingles — the majority of them elderly — will suffer from a complication called postherpetic neuralgia, where the pain continues for months or years after the skin rash clears. Shingles on the face and head can also cause damage to the eyes, ears and brain. And even in people who suffer minimal discomfort from shingles, the virus is highly contagious.

The Shingrix vaccine provides a 90 percent protection rate for older adults, compared with 50 percent for the previously available Zostavax vaccine.



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Home DNA testing offers insight, but potential health findings should be treated with caution

Dr. Grody points out that much of the genetic information sought from such tests has no value to medical decision making. “You might learn that you have a 3 percent lifetime risk of Parkinson’s disease,” he says. “What are you supposed to do with that information? There is no way to prevent Parkinson’s. That percentage isn’t much higher than the risk for the general population. And we’re not entirely sure about the reliability of the genetic markers in predicting this disease.”

While geneticists have learned a great deal about the human genome in recent years, there is far more that is still not understood, Dr. Grody notes. Yet, too many home testing kits offer results stemming from variants in genes that are at the research stage. For example, results might suggest a moderately increased risk of heart disease and stroke based on genetic information that scientists view as far from predictive. “They’ll recommend that you eat more vegetables, which could apply to almost every adult in the United States,” Dr. Grody says. “You don’t need a DNA test to tell you that.”

In the case of genetic-testing results that are more definitive, such as those pointing to the risk of familial cancers or inherited neurological disorders, Dr. Grody is concerned that consumers will be ill equipped to handle troubling information without guidance of physicians or specially trained genetic counselors. “When you tell a woman she has an 85 percent lifetime risk of breast cancer, and she is sitting in her home with no options or knowledge about what she can do with that information, it is potentially very harmful,” he says.

Dr. Grody says that any genetic test that may suggest future implications on an individual’s disease risk should be preceded by counseling to explain its limitations and to determine whether the test is appropriate, as well as post-test counseling to put the results in perspective and refer the person to a specialist, if needed.

UCLA’s genomics center has strict criteria before it begins offering a genetic test — ensuring both that the results will be scientifically reliable and that there is something that can be done for patients who receive concerning results. In addition to conducting single-gene tests, UCLA is among the only centers to offer a comprehensive analysis and diagnostic interpretation of an individual’s entire protein-encoding genome, involving more than 20,000 genes, to potentially locate a single DNA change responsible for rare disorders that in many cases have eluded diagnosis for years.

In some cases, Dr. Grody says, home DNA tests have provided important information that individuals have brought to the attention of their physician. But he is concerned that the potential harms of such tests outweigh the benefits. “Our genetics clinic gets an increasing number of calls from people who either don’t understand the results or are upset and seeking someone to explain the findings to them,” Dr. Grody says. “Just as we don’t want someone walking into a pharmacy and purchasing certain medications without a prescription, it makes sense that most of these DNA tests should be ordered by doctors.”

The new vaccine is recommended for adults over the age of 50, as well as people with weakened immune systems. It has proven particularly effective for adults over age 70. Those who received the older Zostavax vaccine should still get the new Shingrix vaccine, Dr. Uslan says, as should those who previously had shingles. The new vaccine is administered in two doses given at least eight weeks apart. It causes some pain and swelling at the injection site and can trigger flu-like symptoms.

Zachary Rubin, MD, infectious diseases physician and medical director of the Infection Prevention Program at Ronald Reagan UCLA Medical Center, says fewer cases of naturally occurring chicken pox have resulted in weaker long-term immunity among older Americans. “It used to be that someone would have chicken pox and then they would produce protective antibodies for some time. Later, when exposed to chicken pox in others, such as their children, their immune system would be jogged and they would produce additional protective antibodies. With the advent of the chicken pox vaccine, there’s less naturally occurring chicken pox and, as a result, older peoples’ immunities are waning over time. That’s why we’ve seen the number of shingles cases increase, and another reason adults over 50 should strongly consider getting the new vaccine.”

